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PROVINCE OF BRITISH COLUMBIA

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VOLUME ONE

THE GOVERNMENT OF
THE PROVINCE OF BRITISH COLUMBIA

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AUTHORITY OF THE LEGISLATIVE ASSEMBLY.

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
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FORTY-SIXTH ANNUAL REPORT

OF

THE PUBLIC SCHOOLS

OF THE PROVINCE OF

BRITISH COLUMBIA

1916-1917

BY THE SUPERINTENDENT OF EDUCATION

WITH APPENDICES

PRINTED BY
AUTHORITY OF THE LEGISLATIVE ASSEMBLY.

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

To His Honour FRANK STILLMAN BARNARD,

Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

I beg herewith respectfully to present the Forty-sixth Annual Report on the Public Schools of the Province.

J. D. MACLEAN,

Minister of Education.

December 20th, 1917.

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PART I.

GENERAL REPORT.

REPORT OF THE SUPERINTENDENT OF EDUCATION. 1916-1917.

EDUCATION OFFICE,
VICTORIA, B.C., December, 1917.

To the Honourable J. D. MacLean, M.D., C.M.,
Minister of Education.

SIR,—I beg to submit the Forty-sixth Annual Report of the Public Schools of British Columbia for the school-year ending June 30th, 1917.

The total enrolment in all the schools was 65,118. The number of boys was 32,480, and of girls 32,638. The grand total actual daily attendance made by all the pupils enrolled was 10,045,594. The average actual daily attendance was 52,577. The percentage of regular attendance was 80.74. The total number of teachers employed was 2,124. Of this number, 166 were employed in the high schools, 854 in the city graded schools, 506 in the rural municipality schools, and 598 in the rural and assisted schools.

HIGH SCHOOLS.

The enrolment in the high schools during the year was 4,841. Of this number, 2,074 were boys and 2,767 were girls.

The number of divisions, the total enrolment, the average actual daily attendance, and the percentage of regular attendance in each high school are shown in the following table:—

High Schools.	No. of Divisions.	Total Enrolment.	Average Actual Daily Attendance.	Percentage of Regular Attendance.
Agassiz	1	18	13.45	74.72
Armstrong	2	50	40.24	80.48
Bridgeport	3	49	38.70	78.97
Chilliwack	3	101	87.60	86.73
Cranbrook	1	27	20.34	75.33
Cumberland	2	39	36.50	93.58
Duncan	1	27	22.01	81.51
Enderby	1	26	20.80	80.00
Esquimalt	2	28	22.40	80.00
Fernie	2	39	32.68	83.79
Golden	1	26	16.07	61.80
Grand Forks	2	49	44.61	91.04
Greenwood	1	16	14.48	90.50
Kamloops	3	65	56.23	86.50
Kaslo	2	41	34.44	84.00
Kelowna	2	49	40.28	82.20
Ladner	2	36	28.92	80.33
Ladysmith	2	53	42.55	80.28
Matsqui	2	28	26.03	92.96
Mission	2	45	34.67	77.04
Nanaimo	4	113	91.99	81.40
Nelson	5	159	116.53	73.28
New Westminster	11	331	271.72	82.09
Oak Bay	2	47	36.26	77.14
Peachland	1	14	8.42	60.14
Penticton	2	56	39.35	70.26
Point Grey	5	128	109.70	85.70
Port Alberni	1	25	18.18	72 72
Prince Rupert	3	37	32.21	87.05
Revelstoke	3	69	59.60	86 37
Rossland	3	53	40.98	77.32
Salmon Arm	1	25	20.34	81.36
Summerland	2	34	27.57	81.08
Trail	2	42	35.20	83.80
Vancouver:				
Britannia	13	483	402.88	83.41
King Edward	24	942	772.43	81.99
King George	10	344	302.46	87.92
Vancouver, North	4	104	81.61	78.47
Vancouver, South	9	283	247.07	87.30
Vernon	2	61	45.29	74.24
Victoria	22	679	565.86	83.33

GRADED CITY SCHOOLS.

A graded school consists of at least two divisions, having as its teaching staff a principal and at least one assistant. The total enrolment in graded city schools was 32,264, and the average actual daily attendance 27,127. The number of boys enrolled was 16,131, of girls 16,133.

The following table gives the names of the several graded city schools, the number of divisions in each, the total enrolment, the average actual daily attendance, and the percentage of regular attendance:—

Schools.	Number of Divisions.	Total Enrolment.	Average Actual Daily Attendance.	Percentage of Regular Attendance.	Population of City according to Census of 1911.
Alberni	2	66	59.63	90.34	
Armstrong	6	238	186.42	78.32	
Chilliwack	9	330	275.62	83.52	1,657
Courtenay	3	107	80.76	75.47	
Cranbrook:					
Central	9	380	319.35	84.03	
Kootenay Orchards	1	20	18.38	91.90	2,365
South Ward	2	76	58.20	76.57	
Cumberland	9	342	276.19	80.75	1,237
Duncan	7	215	175.13	81.45	
Enderby	4	135	117.60	87.11	835
Fernie	21	859	701.44	81.65	1,287
Grand Forks	10	414	332.90	80.41	1,577
Greenwood	3	102	83.87	82.22	
Kamloops	10	470	361.75	76.96	3,772
Kaslo	4	173	144.36	83.44	
Kelowna	10	364	318.24	87.42	1,663
Ladysmith	11	466	398.51	85.51	
Merritt	8	263	217.25	82.60	
Nanaimo:					
Middle Ward	4	161	146.37	90.91	
Quennell	18	808	659.25	81.59	8,305
South Ward	3	125	102.41	81.92	
Nelson	17	678	591.70	87.27	4,563
New Westminster:					
F. W. Howay	10	391	337.82	86.39	
Lord Kelvin	8	315	275.21	87.36	
Lord Lister	8	297	257.86	86.82	
Richard McBride	9	350	287.88	82.25	13,394
Queensborough	2	86	66.58	77.41	
John Robson	11	362	301.83	83.37	
Herbert Spencer	8	316	269.44	85.26	
Phoenix	5	172	150.08	87.25	1,512
Port Alberni	3	108	89.14	82.53	
Port Coquitlam:					
Central	4	129	98.37	76.25	
James Park	2	61	49.29	80.80	
Port Moody	5	158	108.76	68.83	
Prince George	4	172	119.85	69.68	
Prince Rupert	14	469	395.23	84.27	4,184
Revelstoke:					
Central	7	272	226.68	83.33	3,010
Selkirk	9	362	327.65	90.51	
Rossland:					
Central	10	429	357.12	83 24	2,827
Cook Avenue	6	248	204.83	82.59	
Salmon Arm	3	125	100.32	80.25	
Sandon	1	52	37.19	71.51	
Slocan	2	65	56.16	86.40	189

GRADED CITY SCHOOLS.—*Concluded.*

Schools.	Number of Divisions.	Total Enrolment.	Average Actual Daily Attendance.	Percentage of Regular Attendance.	Population of City according to Census of 1911.
Trail:					
Central	11	528	427.43	80.95	1,450
Smelter Hill	1	37	29.27	79.10	
Vancouver:					
Aberdeen	8	403	306.89	76.15	
Alexandra	13	582	503.03	86.43	
Bayview	6	259	213.13	82.28	
Beaconsfield	5	194	158.67	81.78	
Central	14	598	467.70	78.21	
Children's Home	4	150	110.06	73.37	
Dawson	22	955	798.17	83.57	
Charles Dickens	7	286	268.07	93.73	
Fairview	14	633	518.52	81.91	
Franklin	5	184	155.77	84.65	
Simon Fraser	13	526	469.35	89.23	
General Gordon	8	372	314.15	84.44	
Grandview	11	496	427.08	86.10	
Hastings	11	448	414.88	92.60	
Henry Hudson	12	503	435.13	86.50	
Kitsilano	10	430	372.04	86.52	100,333
Livingstone	8	351	291.21	82 96	
Model	12	515	434.49	84.36	
Mount Pleasant	16	686	585.47	85.34	
Macdonald	9	393	339.94	86.49	
Lord Nelson	15	635	574.92	90.53	
Florence Nightingale	14	647	563.00	87.01	
Cecil Rhodes	9	372	310.76	83.53	
Roberts	21	922	788.50	85.52	
Laura Secord	8	331	283.96	85.78	
Seymour	13	531	454.20	85.53	
Strathcona	16	696	591.31	84.95	
Tennyson	13	554	497.91	89.87	
School for the Blind	1	7	5.14	73 42	
School for the Deaf	2	12	11.84	98.66	
Vancouver, North:					
Lonsdale	6	219	180.89	82.59	7,781
Queen Mary	8	299	256.55	85.80	
Ridgeway	8	320	262.14	81.91	
Vernon:					
Central	10	406	347.10	85.49	2,671
Mason Street	4	159	134.50	84.59	
Victoria:					
Bank Street	4	168	134.56	80.09	
Beacon Hill	4	166	131.15	79.00	
Boys' Central	11	450	356.03	79.11	
Burnside	6	217	191.36	88.18	
Cook Street	1	32	25.58	79.93	
Sir James Douglas	10	490	416.87	85.07	
Fernwood	2	53	50.24	94.79	
Girls' Central	13	507	424.74	83.77	
George Jay	10	372	321.63	86.45	
Margaret Jenkins	4	145	120.78	83.29	31,620
King's Road	3	125	101.05	80.84	
Kingston Street	5	193	149.83	77.63	
North Ward	9	351	305.70	87.09	
Oaklands	8	323	269 52	83.44	
Pembroke Street	1	26	12.73	63.65	
Quadra Street, North	8	305	256.32	84.03	
Rock Bay (closed)	1	..	12.33	....	
South Park	9	363	314.11	86.53	
Spring Ridge	4	191	145.72	76.29	
West	10	403	329.45	81.74	
Child Study Laboratory	1	20	12.44	62.20	

RURAL MUNICIPALITY SCHOOLS.

The total enrolment in these schools for the year was 15,305. Of this number, 7,755 were boys and 7,550 girls.

The following table gives the names of the several municipalities, the number of schools in each, the number of divisions, the total enrolment, and the average actual daily attendance:—

Municipality.	Number of Schools.	Number of Divisions.	Total Enrolment.	Average Actual Daily Attendance.
Burnaby	15	40	1,470	1,175.57
Chilliwack	14	25	691	517.43
Coldstream	2	2	48	34.26
Coquitlam	5	7	108	88.15
Cowichan, North	7	9	195	143.76
Delta	9	12	356	287.90
Esquimalt	1	14	553	438.04
Kent	4	6	172	138.07
Langley	14	21	584	435.53
Maple Ridge	9	17	455	337.91
Matsqui	11	16	378	302.83
Mission	8	13	344	259.04
Oak Bay	2	12	469	363.50
Peachland	2	3	94	70.92
Penticton	2	11	398	317.89
Pitt Meadows	2	2	61	35.77
Point Grey	6	29	1,102	918.79
Richmond	6	13	429	336.15
Saanich	15	43	1,331	1,046.05
Salmon Arm	5	6	187	129.41
Spallumcheen	7	7	142	101.38
Sumas	5	6	118	81.51
Summerland	3	7	212	159.61
Surrey	19	26	607	444.34
Vancouver, North	4	12	325	254.90
Vancouver, South	14	114	4,313	3,726.90
Vancouver, West	3	5	163	113.50

RURAL AND ASSISTED SCHOOLS.

The total enrolment in these schools for the year was 12,708. Of this number, 6,520 were boys and 6,188 were girls. In the following list of rural and assisted schools the names in italics are "assisted schools":—

Abbotsford,
Ainsworth,
Albert Canyon,
Albert Head,
Alert Bay,
Alexandria,
Alice Arm,
Alice Siding,
Allen Grove,
Anaconda,
Anarchist Mountain,
Annable,
Appledale,
Arrowhead,
Arrow Park, East,
Arrow Park, West,
Ashcroft,
Ashton Creek,
Aspen Grove,
Athalmer,
Atlin,
Balfour,
Balmoral,
Bamfield,
Barkerville,
Barnston Island,
Barriere Power House,
Barriere River,
Barriere Valley,
Baynes Lake,
Bear Creek,
Beaton,
Beaver Creek,
Beaver Lake,
Beaver Point,
Begbie,
Belford,
Bella Coola,
Bella Coola, Lower,
Bench,
Beresford,
Berrydale,
Big Bar,
Big Bar Mountain,
Big Bar, Upper,
Big Eddy,
Blaeberry,
Blind Bay,
Blueberry Creek,
Bonaparte Valley,
Boston Bar,
Boswell,
Boundary Falls,
Bowen Island,
Bowie,
Bowser,
Box Lake,
Brechin,
Bridesville,
Brilliant,
Brisco,
Britannia Beach,
Britannia Mine,
Bull River Bridge,
Burgoyne Bay,
Burtondale,
Cache Creek,
Campbell Creek,
Campbell Range,
Campbell River,
Canford,
Canim Lake,
Canyon City,
Cape Scott,
Cariboo,
Carlin Siding,
Carson,
Cartier,
Cascade,
Castledale,
Castlegar,
Cedar, East,
Cedar, North,
Cedar, South,
Chase,
Chase Creek,
Chase Creek, Lower,
Chase River,
Chaumox,
Cherry Creek Valley,
Chief Lake,
Chilco,
Chimney Creek,
Christina Lake,
Chu Chua,
Clayoquot,
Clearwater,
Clinton,
Clo-oose,
Coal Creek,
Coalmont,
Cobble Hill,
Cokato,
Coltern,
Columbia Gardens,
Columbia Park,
Colwood,
Comox,
Concord,
Copper City,
Copper Creek,
Copper Mountain,
Corbin,
Cortes Island,
Cowichan,
Cowichan Lake,
Craigellachie,
Cranberry Marsh,
Crawford Bay,
Crawford Creek,
Crescent Valley,
Creston,
Criss Creek,
Crowsnest,
Cultus Lake,
Curzon,
Darcy Mountain,
Deadwood,
Deep Cove,
Deep Creek,
Deer Park,
Demars, West,
Denman Island,
Departure Bay,
Dewdney,
Diamond Crossing,
Discovery,
Dragon Lake,
Duck Range,
Duhamel,
Dunster,

Edgewood,
Edith Lake,
Eholt,
Elk Bridge,
Elko,
Elk Prairie,
Ellison,
Empire Valley,
Endako,
Enderby, North,
Erickson,
Erie,
Errington,
Essington,
Extension,
Fairview,
Falkland,
Fanny Bay,
Fauquier,
Ferguson,
Field,
Fife,
Fire Valley,
Fish Lake,
Flagstone,
Fort Fraser,
Fort George,
Fort George, South,
Fort Steele,
Foster's Bar,
French Creek,
Fruitlands,
Fruitvale,
Gabriola, North,
Gabriola, South,
Galena Bay,
Galiano,
Galiano, North,
Galloway,
Gambier Island,
Ganges,
Gerrard,
Gill,
Gillis Bay,
Gilpin,
Giscome,
Glade,
Glenbank,
Glencoe,
Glenemma,
Glenora,
Glenrosa,
Golden,
Goldstream,
Granby Bay,
Granby Bay Mine,
Grande Prairie,
Granite Bay,
Grantham,
Grindrod,
Half Moon Bay,
Hall's Landing,
Happy Valley,
Hardy Island,
Harewood,
Harper's Camp,
Harrogate,
Harrop,
Hat Creek,
Hatzic Prairie,
Haysport,
Hazelton,
Hazelton, New,
Headquarters,
Hedley,
Heffley Creek,
Heffley Lake,
Heriot Bay,
Heydon Bay,
Highland,
Hilborn,
Hillier,
Hilltop,
Hilton,
Hope,
Hope Station,
Hornby Island,
Horse Creek,
Hosmer,
Houston,
Howe Sound,
Hume,
Hupel,
Hurlingham,
Huscroft,
Invermere,
Inverness,
Ioco,
Isabella Point,
Jaffray,
James Island,
Jordan River,
Kaleden,
Kaleva,
Kedleston,
Keefers,
Kelowna, East,
Kelowna, North,
Keremeos,
Keremeos, South,
Kettle River, North,
Kettle Valley,
Kildonan,
Killarney,
Kimberley,
Kingsgate,
Kitimat,
Kitsumgallum,
Knutsford,
Koch Siding,
Koksilah,
Kundis,
Lac du Bois,
Lac la Hache,
Lake Buntzen,
Langford,
Lasqueti,
Lazo,
Lillooet,
Little Fort,
Loco,
Long Lake,
Louis Creek,
Lucerne,
Lumby,
Lund,
Lytton,
Mabel Lake,
Malahat,
Malakwa,
Malcolm Island,
Mapes,
Mara,
Marshall,
Martin's Prairie,
Marysville,
Masset,
Mayne Island,
Meadowbrook,
Meadow Spur,
Meadow Valley,
Meldrum Creek,
Metchosin,
Metlakatla,
Michel,
Michel, New,
Midway,
Mill Brook Cove,
Mill Creek,
Minto,
Mirror Lake,
Mission Creek,
Moberly,
Model Farms,
Monte Creek,
Montrose,
Morrissey,
Morrissey Mines,
Mountain,
Mount Ingersoll,
Moyase,

Moyie,
Myncaster,
Macalister,
McBride,
McGuire,
MacKenzie,
Nakusp,
Nanaimo Bay,
Nanoose Bay,
Naramata,
Nechako,
Needles,
New Denver,
Nickel Plate Mine.
Nicola,
Nicola, Lower,
Nicomen,
Nicomen, North,
Nimpkish,
Nine-mile Creek.
Nob Hill,
North Bend,
Northfield,
North Thompson, West,
Notch Hill,
No. 7 Mine,
Ocean Falls,
Okanagan,
Okanagan Centre,
Okanagan Falls,
Okanagan Landing,
Okanagan, South,
Okeover Arm,
Olalla,
Olsen Lake,
Ootsa Lake,
Osland,
Otter Point,
Oyama,
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Royston,
Rutland,
Saanich, North,
Sahtlam,
St. Elmo,
Salmo,
Salmon River,
Salmon Valley,
Sandspit,
Sandwick,
Saskatoon Creek,
Savary Island,
Savona,
Sayward,
Sechelt,
Seton Lake Creek,
Seymour Arm,
Shaw Cove,
Shawnigan,
Shirley,
Shoreacres,
Shuswap,
Shuswap Falls,
Shuswap, North,
Shutty Bench,
Sicamous,
Sidney,
Silver Creek,
Silverton,
Similkameen,
Simpson,
Sinclair,
Sirdar,
Sisters Creek,
Skidegate,
Skookumchuck,
Slocan Junction,
Smithers,
Soda Creek,
Solsqua,
Sooke,
Sooke Harbour,
Sorrento,
Spences Bridge,
Squam Bay,
Squamish,
Squamish, Lower,
Squirrel Cove,
Standard Mine,
Stellaco,
Stewart,
Sullivan Valley,
Sunnybrae,
Sunnyside,
Sunnyside No. 2,
Swift Creek,
Syringa Creek,
Taft,
Tappen Siding,
Tappen Valley,
Telegraph Creek,
Telkwa,
Three Forks,
Three Valley,
Thrums,
Thurlow Island,
Tranquille,
Trapp Lake,
Trout Creek, Upper,
Trout Lake,
Tulameen,
Turtle Valley,
Ucluelet,
Ucluelet Arm,
Ucluelet, East,
Union Bay,
Valdes Island,
Vananda,
Vanderhoof,
Vargas Island,
Vesuvius,
Vesuvius, North,
Waldo,
Walhachin,

Wanklyn,
Wapta,
Wardner,
Wasa,
Waterloo,
Watmore,
Wellington,
Wellington, South,
Westbank Townsite,
Westview,
Whaletown,
Whatshan,
Wheeler Mountain,
White Lake,
Williams Lake,
Williams Siding,
Willow River,
Wilmer,
Windermere,
Winlaw,
Woden River,
Wolfson Bay,
Woods Lake,
Woodville Road,
Wycliffe,
Wynndel,
Yale,
Ymir.

EXPENDITURE FOR EDUCATION.

The expenditure for education proper during the year was:—

Per capita grant to city municipality school districts	$ 471,689 30
do rural municipality school districts	307,872 00
do rural school districts	106,778 50
Salaries of teachers in assisted schools	283,517 60
do Esquimalt & Nanaimo Railway Belt	66,968 05
Education Office	24,385 16
Free text-books	64,967 48
Inspection of schools	41,690 57
Provincial Normal Schools	42,946 56
Education of deaf, dumb, and blind	13,715 65
Agricultural and Industrial Education	35,117 18
Manual-training equipment	5,028 27
Grants to school libraries	300 78
Conveying children to Central School	568 68
Grant to Reading Camp Association	300 00
	$1,465,845 78
Less fees for teachers' certificates	2,440 00
	$1,463,405 78

The cost of construction of new school-houses, furniture, repairs, and improvements generally to school property for the year was $136,719.11. The total cost to the Provincial Government for all purposes of education during 1916-17 was:—

Education proper	$1,463,405 78
Department of Works	136,719 11
	$1,600,124 89

In addition to this amount, the incorporated cities, rural municipality and other school districts spent the following sums over and above the *per capita* grants received from the Treasury:—

CITIES OF THE FIRST CLASS.

New Westminster	$ 67,520 51
Vancouver	498,055 04
Victoria	158,276 24

CITIES OF THE SECOND CLASS.

Chilliwack	13,160 00
Cranbrook	11,905 36
Fernie	19,531 19
Grand Forks	11,547 24
Kamloops	14,967 25
Carried forward	$ 794,962 83

CITIES OF THE SECOND CLASS—*Concluded.*

Brought forward	$ 794,962 83
Kelowna	12,641 00
Ladysmith	6,222 90
Nanaimo	18,660 04
Nelson	26,340 99
Prince Rupert	17,201 77
Revelstoke	15,355 15
Rossland	16,910 07
Vancouver, North	24,694 21
Vernon	18,717 15

CITIES OF THE THIRD CLASS.

Alberni	934 28
Armstrong	4,861 61
Courtenay	1,974 91
Cumberland	2,745 20
Duncan	5,180 06
Enderby	4,353 61
Greenwood	3,853 77
Kaslo	4,516 92
Merritt	5,939 45
Phoenix	4,604 34
Port Alberni	2,801 07
Port Coquitlam	6,968 42
Port Moody	3,231 09
Prince George	4,740 00
Salmon Arm	5,085 06
Sandon	841 40
Slocan	1,355 39
Trail	21,980 25

RURAL MUNICIPALITIES.

Burnaby	37,588 95
Chilliwack	19,375 18
Coldstream	1,774 93
Coquitlam	2,544 59
Cowichan, North	7,780 71
Delta	9,775 94
Esquimalt	12,276 65
Kent	3,794 20
Langley	12,201 09
Maple Ridge	8,622 97
Matsqui	8,214 59
Mission	10,348 46
Oak Bay	23,524 38
Peachland	2,556 97
Penticton	11,761 33
Pitt Meadows	1,150 40
Point Grey	55,213 95
Richmond	11,800 00
Saanich	44,121 59
Salmon Arm	2,840 00
Spallumcheen	7,467 95
Sumas	2,195 04
Carried forward	$1,334,602 81

RURAL MUNICIPALITIES—*Concluded.*

Brought forward	$1,334,602 81
Summerland	6,552 08
Surrey	12,378 14
Vancouver, North	16,194 20
Vancouver, South	125,666 34
Vancouver, West	4,864 47

OTHER SCHOOL DISTRICTS.

Rural districts and assisted schools	137,281 04
	$1,637,539 08
Amount expended by the Provincial Government	1,600,124 89
Grant total cost of education	$3,237,663 97

The grand total cost of education for the year 1915-16 was $3,216,349.96.

The cost to the Government of education proper in the several electoral districts was:—

Alberni	$ 22,919 95
Atlin	7,772 70
Cariboo	15,167 15
Chilliwack	38,034 40
Columbia	16,108 45
Comox	50,509 55
Cowichan	18,963 75
Cranbrook	18,876 20
Delta	35,572 60
Dewdney	35,289 40
Esquimalt	18,236 95
Fernie	30,809 15
Fort George	22,775 95
Grand Forks	15,146 40
Greenwood	9,777 85
(The) Islands	13,521 95
Kamloops	51,175 75
Kaslo	18,347 60
Lillooet	12,403 25
Nanaimo	32,880 00
Nelson	12,046 65
Newcastle	22,569 55
New Westminster	32,468 35
North Okanagan	40,324 90
North Vancouver	35,416 65
Omineca	7,130 00
Prince Rupert	28,722 95
Revelstoke	21,966 50
Richmond	48,478 25
Rossland	10,693 30
Saanich	33,090 95
Similkameen	23,941 35
Slocan	23,590 95
South Okanagan	24,939 50
South Vancouver	84,295 60
Trail	30,571 65
Vancouver City	176,191 00
Victoria City	72,680 00
Yale	23,418 35
	$1,236,825 45

The following table shows the cost to the Provincial Government of each pupil on enrolment and on average daily attendance during the past ten years:—

Year.	Cost of each Pupil on Enrolment.	Cost of each Pupil on Average Actual Daily Attendance.
1907-08	$13 94	$20 02
1908-09	14 70	21 01
1909-10	15 36	21 78
1910-11	15 86	22 25
1911-12	17 47	23 32
1912-13	17 91	23 85
1913-14	20 04	25 27
1914-15	21 78	26 65
1915-16	22 50	28 56
1916-17	22 47	27 83

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The gradual growth of the schools, as well as the cost of maintaining the same, is fully shown by the record of attendance and expenditure given in the following exhibit:—

COMPARATIVE STATEMENT OF ATTENDANCE AND COST OF PUBLIC SCHOOLS FROM 1872-73 TO 1916-17.

Year.	Number of School Districts	Aggregate Enrolment.	Average Actual Daily Attendance.	Percentage of Attendance.	Expenditure for Education proper.
1872-73	25	1,028	575	55.93	$36,763 77
1873-74	37	1,245	767	61.60	35,287 59
1874-75	41	1,403	863	61.51	34,822 28
1875-76	41	1,685	984	58.39	44,506 11
1876-77	42	1,998	1,260	63.06	47,129 63
1877-78	45	2,198	1,395.50	63.49	43,334 01
1878-79	45	2,301	1,315.90	57.19	*22,110 70
1879-80	47	2,462	1,293.93	52.56	47,006 10
1880-81	48	2,571	1,366.86	53.16	46,960 69
1881-82	50	2,653	1,358.68	51.21	49,268 63
1882-83	59	2,693	1,383.00	51.36	50,850 63
1883-84	67	3,420	1,808.60	52.88	66,654 15
1884-85	76	4,027	2,089.74	51.89	71,151 52
1885-86	86	4,471	2,481.48	55.50	79,527 56
1886-87	95	5,345	2,873.38	53.75	88,521 08
1887-88	104	6,372	3,093.46	48.54	99,902 04
1888-89	109	6,796	3,681.14	54.16	108,190 59
1889-90	123	8,042	4,333.90	53.89	122,984 83
1890-91	141	9,260	5,134.91	55.45	136,901 73
1891-92	154	10,773	6,227.10	57.80	160,627 80
1892-93	169	11,496	7,111.40	61.85	190,558 33
1893-94	178	12,613	7,785.50	61.72	169,050 18
1894-95	183	13,482	8,610.31	63.86	189,037 25
1895-96	193	14,469	9,254.25	64.00	204,930 32
1896-97	199	15,798	9,999.61	63.29	220,810 38
1897-98	213	17,648	11,055.65	62.64	247,756 37
1898-99	224	19,185	12,304.32	64.13	268,653 46
1899-1900	231	21,531	13,438.41	62.41	284,909 10
1900-01	245	23,615	15,098.28	63.93	312,187 17
1901-02	257	23,903	15,564.25	65.11	365,492 15
1902-03	268	24,499	16,357.43	66.76	397,003 46
1903-04	†252	25,787	17,060.93	66.16	414,383 43
1904-05	†248	27,354	18,859.41	68.94	433,005 17
1905-06	†257	28,522	19,506.23	68.39	418,227 97
1906-07	‡167	30,039	20,017.02	66.63	407,937 85
1907-08	189	33,314	23,195.27	69.62	464,473 78
1908-09	197	36,227	25,350.63	69.97	532,809 84
1909-10	211	39,822	28,094.16	70.54	612,052 74
1910-11	§211	45,125	32,163.24	71.27	715,733 59
1911-12	§328	50,170	37,567.88	74.88	876,415 08
1912-13	§359	57,608	43,274.12	75.12	1,032,038 60
1913-14	§374	62,263	49,377.70	79.30	1,248,163 44
1914-15	§410	64,624	52,821.72	81.73	1,407,990 32
1915-16	§419	64,570	50,870.25	78.78	1,452,999 99
1916-17	§432	65,118	52,577.12	80.74	1,463,405 78

* Half-year.
† Including only those in which a school was in operation during the year.
‡ The consolidation of school districts by the formation of rural municipality districts reduced the number from 257 in 1905-06 to 167 in 1906-07.
§ Including assisted schools with defined boundaries.

The following statement shows the average salary paid to the teachers during the year under each of the four classes of certificates:—

Certificate.	Average Salary paid.	
	Male Teachers.	Female Teachers.
Academic	$1,587 60	$1,075 92
First Class	1,454 28	936 60
Second Class	1,175 76	856 56
Third Class	957 00	827 52

The average salary paid to the teachers of the Province (male and female) was $1,002.96.

The following is a list in tabular form of the number of teachers employed during 1916-17 in the various electoral districts of the Province; the number of male and female teachers is also shown as well as the class of certificate held:—

	Academic.	First Class.	Second Class.	Third Class.	Tempo-rary.	Special.	Male.	Female.	Total.
Alberni	4	6	12	5	3	.....	6	24	30
Atlin	.....	1	.....	5	2	.....	3	5	8
Cariboo	2	4	6	3	1	.....	4	12	16
Chilliwack	10	10	33	13	.....	2	10	58	68
Columbia	2	4	4	7	2	.....	4	15	19
Comox	7	7	23	20	9	.....	14	52	66
Cowichan	4	8	10	6	.....	1	7	22	29
Cranbrook	5	5	6	10	3	1	8	22	30
Delta	7	9	25	20	1	2	11	53	64
Dewdney	8	9	19	23	1	2	8	54	62
Esquimalt	4	6	13	6	1	2	6	26	32
Fernie	8	11	16	13	3	.....	11	40	51
Fort George	3	4	5	5	6	.....	10	13	23
Grand Forks	3	8	7	7	.....	.....	4	21	25
Greenwood	2	3	5	4	1	.....	3	12	15
(The) Islands	2	4	10	4	1	.....	4	17	21
Kamloops	9	15	27	27	1	.....	12	67	79
Kaslo	5	5	10	5	.....	.....	6	19	25
Lillooet	1	3	3	6	3	.....	1	15	16
Nanaimo	8	9	19	10	.....	2	10	38	48
Nelson	9	3	8	2	.....	2	7	17	24
Newcastle	3	5	18	4	.....	.....	5	25	30
New Westminster	12	26	22	7	.....	5	20	52	72
North Okanagan	12	9	24	20	.....	2	9	58	67
North Vancouver	11	18	13	18	1	1	12	50	62
Omineca	2	1	.....	2	2	.....	3	4	7
Prince Rupert	13	8	8	10	1	1	14	27	41
Revelstoke	5	7	15	5	2	.....	7	27	34
Richmond	12	18	32	18	.....	9	23	66	89
Rossland	5	.....	10	5	.....	.....	2	18	20
Saanich	6	16	23	12	.....	2	8	51	59
Similkameen	11	7	11	6	.....	2	9	28	37
Slocan	7	10	3	8	2	.....	14	16	30
South Okanagan	11	7	17	7	1	2	9	36	45
South Vancouver	17	23	73	19	.....	10	34	108	142
Trail	5	13	15	12	1	.....	6	40	46
Vancouver City	112	116	122	12	2	30	102	292	394
Victoria City	27	44	60	14	1	14	36	124	160
Yale	6	4	13	13	2	.....	6	32	38
	380	466	740	393	53	92	468	1,656	2,124

INSPECTORS' REPORTS.

HIGH SCHOOLS.

VICTORIA, B.C., July 2nd, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I beg to submit herewith the following report on the high-school work of the Province for the school-year ending June 30th, 1917:—

Amid the ebb and flow incidental to all school-work the fact that we are making progress stands prominent. The increase in the number of teachers and pupils, the increased attention that is being given to the agricultural and commercial courses, and the opening of a technical class are some of the evidences of progress. Forty-one high schools, with 166 divisions, and sixteen superior schools were in operation during the year, employing in all 196 teachers. When we consider that the number of high-school teachers increased by twenty-two during the past year and by twenty-six during the year 1915-16, we get a fair idea of the recent advance in the magnitude of the work. During the year new superior schools were established at Ashcroft and Chemainus, and the one-room schools at Cumberland, Matsqui, and Trail became graded high schools. I feel strongly that the importance of the work of inspection and the continued increase in the number of high-school teachers demand more attention than it is possible for one man to give. A good deal of the high-school inspector's time is taken up in connection with the terminal examinations, and it is obviously impossible for him to make two visits of inspection to each division in the Province. Last year I was able to make 226 inspections.

My first year of inspection has impressed upon me strongly the need for better accommodation for the high-school pupils in many of the smaller centres. I am almost afraid to venture on any forecast regarding the happy day when the teachers and pupils of some centres shall have such accommodation as they richly deserve. It is surely reasonable to expect that a high school which has reached the dignity of two divisions is important enough to deserve a separate building. Districts cannot expect the best results if they consider their high school simply as an adjunct of the public school. The following high schools have very inadequate accommodation: Cranbrook, Grand Forks, Fernie, Nanaimo, Rossland, Trail, and Vernon. In each of these cities the present trustees are fully alive to the necessity for a change, but are handicapped financially. However, it is almost a certainty that at least three of the districts mentioned above will this year obtain the accommodation which is so much needed.

During the past year a large addition to the Nelson High School was completed, giving this important centre a building of which it is deservedly proud.

There is an ever-increasing demand for an extension in the work of our high schools, so that the varied needs of different communities may be better served, and so that the pupils, to whom the observational, manual, and scientific subjects rather than those subjects which train the memory and powers of analysis and discrimination appeal, may not be lost to our schools. It is possible that in the past educators may have been too much concerned with the problem of making the boys and girls of all communities fit the same courses, but are now realizing that the courses might with profit be varied to suit the needs of the boys and girls of different communities. The experience of the past has been that unless care is taken when changes are being made the pendulum is apt to swing too far. In my opinion the educational authorities of this Province are dealing with this question in a very sane manner.

The Education Department two years ago recognized that the work of the rural high schools should be extended so as to better serve the agricultural communities by which they are surrounded, and accordingly established an agricultural course in the Chilliwack High School. The progress along this line has been encouraging. During the past year the high or superior schools at Chilliwack, Armstrong, Belmont, Cloverdale, and Vernon have been conducting agricultural classes under trained specialists. The work is meeting with favour. The growth will be in proportion to the need that is felt among the rural population for such service. The probability is that next year the number of high schools giving agricultural courses will be at least doubled. This course should attract the farm-boy into the high school, will offer pupils

definite instruction in agricultural science, and will give the prospective teachers throughout their High School Course a practical knowledge of agriculture which is essential to the greatest success in any rural school.

Commercial courses are now being given by seven of our high schools. Business men are continually bearing testimony to the excellence of the work being done in these classes. At the beginning of the last school-year a new class was established in the Point Grey High School, while at least three other high schools are making preparation for beginning instruction in commercial work next year.

The King Edward High School, Vancouver, established a technical class for boys at the beginning of the year. This is the first class of its kind in connection with the high schools of the Province and is proving a success. In addition to the mental training received, the technical subjects are preparing the boys for any one of many different trades by giving them a nervous system capable of co-ordinate efforts and a widely applicable skill of hand and eye. The probability is that the same school will next year provide an advanced course in household arts.

The high schools of the Province are now offering the following courses: Non-professional training of teachers; matriculation to University; commercial; agricultural; manual training; domestic science; technical.

For years to come the most important work of our high schools will be the business of providing a non-professional training for the future teachers of our elementary and high schools. When looked at in this light, how important it is that the methods employed by our high-school teachers should be of the best! No matter how excellent a professional course teachers receive at our Normal Schools, there is a grave danger that they will present the different subjects to their classes in much the same manner as these subjects were presented by their high-school teachers. The nature of the preparation and training our young people receive in the high schools must, therefore, always seriously engage the attention of the educational authorities.

I shall refer to some of the outstanding defects I have noted in the presentation of different subjects.

In science the text-book is too much in evidence. In too many schools the suggested experimental work is not done at all or is performed by the teacher before the class; hence the pupils get little or no training in seeing correctly, in manipulating the apparatus deftly, and in drawing the right inferences from the testimony of their senses. It is indispensable to success in scientific work that the subject be taught in the most concrete manner possible—that is, with ample experimental work done by the pupil himself, that he be taught to draw only the legitimate inferences, and that he himself describe his own observations. Nearly all our high schools are deficient in the matter of laboratory accommodation and equipment, but in a number of cases where these have been supplied the teachers do not make use of them.

There are not many good teachers of botany in the high schools. Pupils should be taught to get a first-hand knowledge of plants by visiting them as often as possible and by making collections of the best specimens. The limited number of technical terms needed should be taught when the class see the need for such terms. The contrast between the apathy and listlessness of a class in this subject under a poor teacher and the enthusiasm and earnestness displayed where the teacher is a master of the subject is most apparent.

Geometry is made too much of a memory subject.

Conversational work in French does not receive sufficient attention.

Sight translation is a most invaluable form of exercise in the teaching of foreign languages, yet is used but little. It shows the teacher just what progress is being made in acquiring a facility of translation, and at the same time emphasizes for the benefit of both teacher and pupil the weakness of harmful methods.

In a large number of schools arithmetic and drawing are not receiving the attention their importance deserves. I am firmly convinced that it will be necessary for the Department to either give papers in these subjects at the end of the first year or extend the course to two years.

Strathcona Trust prizes were awarded to the following: First, Division 1, Oak Bay High School, Mr. H. P. Hope, B.A.; second, Division 2, Armstrong High School, Miss I. Tompkins, M.A.; third, Division 2, Nanaimo High School, Miss B. Macdonald, B.A.

It is only fair to state that Division 2 of the Kamloops High School, under Mr. T. R. Hall, B.A., is worthy of special mention. This division came within one point of tying for third place.

In addition to the above, fifteen or twenty additional divisions are doing creditable work, but in the majority of our high schools the showing in this subject is most disappointing. About sixty of the teachers engaged during the year were without Strathcona Trust certificates. The majority of these taught in the Interior and have had no opportunity to qualify. The indications are that these teachers would avail themselves of the opportunity, were one afforded, to secure the full qualification.

I have been deeply impressed with the need for much greater attention to the physical welfare of the pupils. The boys and girls of many of the smaller high schools take absolutely no part in playground sports. A proper blending of formal physical exercises and organized playground sports seems to me the ideal system, but it is most unfair to the pupils when both are lacking. The development of the mind and the development of the body are both important and cannot well be dissociated. In the larger high schools the most satisfactory plan is the appointment of physical instructors who are capable of directing all the physical activities of the school and can devote all their time to this work. The Victoria High School has adopted this plan with most satisfactory results. Occasionally a teacher complains that he has no time to devote to this subject. I am firmly convinced that a few minutes spent each day in physical drill would so brighten and stimulate the classes that there would result a real economy in time and labour; instead of adding to the present burdens this would really lighten them.

During the past two years the Department has given no examinations on the work of the Preliminary Course, Junior Grade. Last year, 1,476 pupils sat at the Departmental Examinations, and 1,086 were successful, a percentage of 73.57, which is practically the same as the percentage for the previous year, when the number of successful candidates was 974, or 73.95 per cent. The above figures do not include pupils who wrote the University Matriculation Examination. Had two or three of our larger schools accomplished even average results the percentage this year would have been in the vicinity of 80. The disastrous showing made by these two or three schools should give the principals and teachers pause. This showing is due only in part to the presence of a few weak teachers. There are weak teachers, and principals and trustees should realize that they cannot afford to keep them any longer; but when almost 50 per cent. of the pupils fail when a reasonable test is given, unless we are willing to admit that fully a third of the teachers are incompetent, we must look elsewhere for a contributory cause. When we consider the excellent results obtained in the recent examination by many of the smaller high schools, in spite of poor accommodation and inexperienced teachers, and contrast it with the most disappointing showing of some of the larger ones, it should lead the latter to seriously take stock.

I believe that the majority of the teachers of the larger schools taught just as well as their fellows of the smaller as far as the mere presentation of subject-matter is concerned, but the great difference lay in the attitude of the pupils towards their work. It is impossible for the principal and teachers to shirk their responsibility for the attitude of the pupils, and they with the parents should realize the necessity for instilling into the children's minds the idea that school-work should hold first place. While the methods by which subjects may be taught are very important, yet the methods by which the pupils may be stimulated are still more important. The vigorous activity of the pupil is an essential feature of all good education. An ambitious, earnest boy with poor teaching will learn more than an indifferent boy with good teaching. I believe in a teacher presenting lessons clearly, carefully, and patiently, and being ever ready to direct and lend a helping hand; but we should not make the mistake of doing everything *for* the pupil. Let us rather see that much is done *by* the pupil. As pupils grow with their own conquests, it is more important that pupils should be taught to study on their own account rather than that they should expect others to spare them the necessity.

It has been a great pleasure to me to meet the teachers and trustees and to discuss school problems with them. It would be impossible to find a more earnest, conscientious body of men and women. While I have had considerable experience in teaching high-school subjects, yet I feel that my first year in the work of inspection has been a valuable one for myself. The work in many class-rooms has been a source of inspiration. I trust that my visits have been a help to at least a few.

I have, etc.,
J. B. DELONG,
Inspector of High Schools.

INSPECTORATE No. 1.

VICTORIA, B.C., October 25th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I beg to submit the following report on the schools of Inspectorate No. 1 for the school-year ending June 30th, 1917:—

As in the two preceding years, the district comprised the City of Victoria, the Rural Municipalities of Esquimalt, Oak Bay, and Saanich, and the northern portion of Saanich Peninsula.

The number of teachers engaged in each of these school districts was as follows:—

Victoria	121
Esquimalt	14
Oak Bay	12
Saanich	42
Rural	6
Total	195

Many of the teachers within the city were young and inexperienced, the policy of the Board during the last three years being to fill vacancies as they have occurred with young women direct from the Normal School; and as a great number of vacancies have arisen during this period, caused in part through the younger men enlisting for war service and in part to the much lower salaries paid by the city as compared with those paid to teachers in other parts of the Province, the standing of the schools has fallen away to a very considerable extent. The standing of the schools has been further affected through a spirit of discontent among many of the remaining teachers on account of salaries, and, unless the Board changes its attitude and adopts a more liberal policy with regard to salaries, there will be a further exodus of teachers from the city.

Five years ago the Board adopted the recommendations of its Municipal Inspector, which may be stated briefly as follows:—

(1.) The class not to exceed thirty-five scholars.

(2.) A salary schedule with annual increases for length of service and creditable work.

(3.). Teachers of experience and ability to receive preference in filling vacancies.

The effect of such a policy was soon noticeable in the schools, particularly in the lower divisions; the retardation of pupils which I had reported upon about that time began to disappear, and, with few exceptions, pupils received their grading at the proper intervals. But the full effect of that policy is just reaching the senior divisions of the schools. The following table will show the growth in numbers completing the Public School Course:—

Year.	Average Attendance.	Entrance Examination Passes.	Ratio of Passes to Attendance.
1912	3,208	133	1 passed in 24
1913	3,764	150	1 „ 25
1914	4,159	287	1 „ 14.5
1915	4,221	231	1 „ 18
1916	3,980	253	1 „ 15.5
1917	4,082	325	1 „ 12.5

While in 1913 only 1 child in every 25 in attendance at the city schools completed the Public School Course, 1 in 12.5 succeeded in doing so in 1917; and when it is realized that the highest possible pass is about 1 in 7 pupils, inasmuch as our Course of Study requires about seven years to complete, the effect upon the schools of the adoption of the Inspector's recommendations will be more fully appreciated.

But soon after the outbreak of war the Board was stampeded from its position; all salaries were reduced 10 per cent., annual increments were stopped, and appointments to the staff were made at $50 a month. This change of policy is affecting the Junior and Intermediate Grades to

the greatest extent so far, but its effect upon the whole school will become more and more marked. As the ratepayer is charged only $2.75 on every 1,000 assessed valuation of his property for the current expenses of the schools, he cannot have saved over 15 cents on each $1,000 of his property's valuation by the changed policy of the Board, but this 15 cents marks the difference between an efficient and an inefficient service.

The Rural Municipality Boards, I am pleased to be able to state, have been more careful in the selection of teachers for the filling of vacancies, and these schools are continuing to show greater strength. Particularly so is this the case with respect to the Saanich schools, where, through the influence of Parent-Teachers' Associations and Women's Institutes, the parents are demanding the best instructors for their children and right conditions at the school-houses.

There was a slight increase in the number of school-gardens last year, but owing to the backward spring and the dry summer they were not, in many instances, as successful as the teachers had hoped.

The Saanich Teachers' Institute held its regular monthly meetings, all of which were well attended.

I have, etc.,
W. H. M. MAY,
Inspector of Schools.

INSPECTORATE No. 3.

VANCOUVER, B.C., August 1st, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I beg to submit the following report on the public schools of that part of Inspectorate No. 3 which formed my district for the school-year ended June 30th, 1917:—

This inspectorate comprises the City of Vancouver and the Rural Municipalities of Burnaby, Delta, Point Grey, and Richmond. It was until recently in charge of three Inspectors. In the public schools of the five districts that it embraces 414 teachers were employed and 17,028 pupils enrolled. My duties from the beginning of the school-year till the end of February were confined to the schools of Point Grey and the following eight in Vancouver: Roberts, Strathcona, Mount Pleasant, Florence Nightingale, Central, Grandview, Macdonald, and Franklin. In March the staff of Inspectors was reduced to two and a reapportionment of the schools became necessary. The Model, Simon Fraser, General Gordon, Charles Dickens, and the Livingstone Schools, as well as those of Richmond Municipality, were added to the number which had previously been assigned me.

Building operations were limited during the year to such work as was urgently needed. In a few districts the existing schools did not fully meet the demands for additional accommodation and temporary buildings had to be erected. Towards the end of the year preparations were made by the School Board of Point Grey to increase the class-room accommodation at Magee. A modern two-room school-house is now under construction there, which, with the rooms available in the High School building, will, it is expected, meet the requirements of the locality for the next year or two. The schools at Eburne and Shaughnessy are filled to their capacity and extensions to them will soon become necessary.

A great deal of renovating work in the way of painting and general repairs was done throughout the inspectorate. In Vancouver the ventilating and heating systems in several schools were changed and improved.

School-gardens were in operation at the Grandview School, Vancouver; the Kerrisdale School, Point Grey; and the Bridgeport, Steveston, English, Lulu, and Mitchell Schools in Richmond Municipality. In Point Grey two classes of the Queen Mary School carried on home-gardens under the direction of their teachers. Where these outdoor activities are properly directed, they are proving an attractive as well as a valuable feature of school studies. As a rule, the localities which take up this work also show much interest in the matter of general school-ground improvement.

Conditions existed in many class-rooms during the fall term which were decidedly unfavourable to good work. Vancouver, with a view to economy, reopened the schools in August with fewer teachers than it had the previous term. There was an unexpectedly large increase in enrolment, and this, together with the reduction in the staff, led to overcrowding in many rooms and made successful teaching difficult. It soon became evident that the saving effected was secured at the expense of efficiency. At the beginning of the spring term, in order to relieve the congestion and to provide for new pupils about to be enrolled for the first time, many additions were made to the staff. But at that time it was difficult to get well-qualified teachers for all the positions to be filled. As a result many "beginners" had to be appointed, and, though all were earnest and zealous, some of them at the outset were unable to do good or even fair work.

Enlistment for military service has taken away from the school-rooms many of the best male teachers. Nearly all the young men of the profession have secured leave of absence and have joined Canada's forces overseas. The withdrawal from class-room work of these teachers, all of whom had been in charge of Senior Grade pupils, is a distinct loss to the schools.

In spite of the difficulties under which many schools were conducted, the progress made along all lines of school effort has been most encouraging. The great majority of the teachers are enthusiastic, industrious, and capable, and show due appreciation of their responsibilities. They not only present lessons well and teach their pupils how to study and gain knowledge, but they also aim to give them a sound and wholesome view of life and to establish right ideals and suitable habits. The incidents of school-life and the rounds of daily tasks enable them to impress on the children the importance of self-control, consideration for others, honesty, system, thoroughness, and close application to work. In the lessons on history and literature they are able by numerous examples to emphasize the value of courage, patriotism, public spirit, and, in fact, of all the qualities which make for good citizenship.

On the other hand, some teachers have not done well. Their work, even when viewed in the most sympathetic way, cannot be regarded as satisfactory. Some of them are weak in control, others are careless, and a few lack the "will to labour." It is rare to find a school of eight or more divisions which has not on its staff at least one teacher who does not possess the necessary aptitude for the teaching service.

It is desirable that greater discretion be used in assigning home lessons. I believe that for a large proportion of the children in the upper classes the home-work is altogether too heavy. Pupils while in the Junior Grade prepare all their lessons in the class-room; but when the Intermediate and the Senior Grades are reached new subjects are added. All the lessons can no longer be assigned and presented by the teachers and prepared by the pupils within the regular school-hours. Some home preparation becomes necessary at this stage. But a large number of teachers are unreasonable in their demands. They give too many lessons and assign tasks that are unsuitable and unprofitable. Their pupils have to prepare nearly all their lessons at home. Consequently very little time is left for recreation or play. There is a danger under these conditions that many of the children are getting their education at the expense of their health. It is perhaps not surprising that parents protest against the practice and demand that such tasks be greatly reduced or be abolished altogether.

Problems in arithmetic and exercises in analysis and parsing, though favourite assignments, are most unsuitable for home-work. They are simply tests of the pupils' knowledge and can be conducted profitably only in the class-rooms. Since much of the work given in this way is beyond the comprehension of the slower pupils, it is small wonder that some of the written exercises handed in each morning to the teacher have been done with the assistance of others or copied from the exercise-books of class-mates. Drawing maps at home is also of doubtful value. The children mechanically fill in places and physical features, rarely noticing positions or relationships. The sketching of memory maps in the class-rooms and the filling-in of blank maps are much better exercises and are much more likely to impress locations on the minds of the pupils. Of the value of home-work there is no doubt. If wisely assigned, it will lead to habits of study and concentration. I am of the opinion, however, that the time devoted to it should not, even in the case of Entrance pupils, exceed one hour and a half each evening. Home studies should, almost entirely, take the form of review-work, or of getting information or illustrations about topics to be taken up later for study in the school-room.

The importance of giving careful attention to the physical development of the pupils is very generally recognized. Teachers realize more than ever that good work in the class-room or out of it is possible only to persons who are enjoying good health. The schools are aiming at developing health and vigour of body as well as intellectual habits and sound character. Physical training, hygienic teaching, and medical inspection form a very necessary and important part of the work of our schools. The rooms in which exercises in physical training do not form a feature of class-room instruction are few indeed. Through lessons in hygiene the value of sunlight, fresh air, exercise, wholesome food, and adequate rest is emphasized. This work, if combined with close attention to school ventilation and heating, must tend to the better physical and mental development of the children who attend the schools of this Province.

Prizes for excellence in physical training were this year awarded as follows:—

Division I. of the inspectorate—

Miss E. C. Matheson, 5th Division, Strathcona School.

Miss Florence Mulloy, 2nd Division, Eburne School.

Mrs. J. M. H. Harding, 4th Division, Lord Roberts School.

Division II.—

Miss E. L. Roberts, 5th Division, Model School.

Miss Agnes Spencer, 3rd Division, Model School.

Miss A. M. Stiven, 4th Division, Lord Tennyson School.

In closing, I wish to express my appreciation of the support that was so generally given me by teachers and School Boards during the eleven years I served as Inspector of Schools. The earnestness of the teachers and their devotion to duty, as well as the willingness of School Boards to co-operate in all matters that tended to the improvement of the teaching service, were always sources of encouragement and assistance to me in carrying out my duties.

I have, etc.,

J. D. GILLIS,

Inspector of Schools.

VANCOUVER, B.C., August 1st, 1917.

Alexander Robinson, Esq.,

Superintendent of Education, Victoria, B.C.

SIR,—I beg to submit the following report on the public schools of that portion of Inspectorate No. 3 which formed my district for the school-year ending June 30th, 1917:—

Until the end of February my duties were confined to the schools of Burnaby, Delta, and the following seven in Vancouver: Aberdeen, Dawson, Hastings, Kitsilano, Lord Nelson, Laura Secord, and Seymour. From March 1st to the end of the school-year the list of city schools was increased by the addition of the Alexandra, Bayview, Beaconsfield, Children's Aid, Fairview, Henry Hudson, Cecil Rhodes, Tennyson, and the School for the Blind.

The equipment of most of the schools is fairly complete. The Burnaby schools are amply provided with all necessary supplies. The trustees and the Secretary deserve commendation for the systematic manner in which they have attended to such matters. The teachers of this municipality are working under conditions so favourable in this respect that none of them can justly blame the Board for poor or indifferent work or any loss of time occurring during school-hours. In the smaller municipality of Delta the handling of supplies is not so well organized. The Board was always willing to fill any orders sent in by the teachers. However, greater promptitude on the part of the trustees in dealing with such matters would increase the teachers' efficiency. In a city the size of Vancouver the providing of suitable and adequate supplies is a matter of great importance, involving the expenditure of nearly $15,000 annually. Since the Board has agreed to provide certain articles, any failure on its part to fulfil this important duty is a great inconvenience to the teachers, and frequently causes a loss of valuable time to both pupils and teachers. As the supplies are of a non-perishable nature and unaffected by the fitful fancies of fashion, the quantities purchased by the Board, twice during the year, should arrive in good time and be large enough to provide for all requirements of the next five months. This will necessitate, on the part of the Secretary, an early compiling of the estimates sent in

by the various principals; the Board also must pass the order promptly, as wholesale merchants, and possibly the manufacturer, will require some time, especially during the war, to fill the order.

Unless estimates for supplies are compiled in the office from a standard schedule, ability on the part of each principal to estimate fairly accurately the requirements of his school is necessary for the successful working of any scheme for providing such supplies. If the principals are excessive in their estimates, the Board by following such suggestions would tie up an unnecessary amount of money in idle stock. However, a reasonable reserve of all the articles supplied should be on hand at the central office.

When the supplies reach the various schools the principals and their assistants have duties to perform. A subdivision to each class-room is necessary. This should be done as soon as possible, so that the principal will not have a series of interruptions throughout the term. Then begin the duties of the individual teacher, which require frequent attention and close observation if the pupils are to form habits that will prevent the wasting of valuable time. Several details have been neglected when, during the early part of a term, we find a lesson in spelling or writing delayed, a teacher and forty pupils idly waiting while a boy goes to the stock-room for a supply of pens, or while a girl trips off to an adjoining room and interrupts a teacher with forty other pupils in order that two or three empty ink-wells may be replenished. Is not this suggestive of the foolish virgins? Before leaving this subject, I wish to state that, as far as the great majority of principals and teachers are concerned, this paragraph might have been omitted; but to the few—principals and teachers—may its suggestions be helpful.

In the Municipalities of Burnaby and Delta the work of the schools during the year just past was carried on under conditions comparing favourably with those of the preceding year; but in Vancouver City such was not the case. In Burnaby sixty-seven candidates wrote on the Entrance Examination, forty-five of whom were successful. The number of pupils in the Senior Grade classes is steadily increasing. During the school-year 1917-18 the principals of the two largest schools, for the first time, will be in a position to devote their whole time to Entrance pupils. Of the twenty pupils from the Delta schools who wrote on the same examination, fifteen were successful. In one school where there was material for three or four successful candidates, none wrote, as the year's work was disorganized during the first term by a teacher who was inexperienced and weak in discipline. The ratepayers of Delta will never secure results commensurate with the amount expended for education until they adopt, in the fullest possible measure, a scheme to consolidate their schools. The Vancouver School Board, although warned that evil results would inevitably follow such a course, was constrained, during the short period of acute financial depression, to adopt a most stringent policy of retrenchment. A temporary reduction of salaries was enforced; the supervisor of primary work was sent back to the class-room; and with a shortage of twenty teachers the school-work was carried on for months, while teachers struggled with impossible burdens in overcrowded class-rooms, where proper classification was impossible. Difficulties were intensified by an unexpected increase of pupils in several localities. Fortunately, what some had looked upon as a deep and wide valley of despair proved in a short time to be but a narrow vale of difficulty; and before Christmas had arrived it was generally conceded that efficiency was more desirable than a penny-wise but pound-foolish policy. Salaries were readjusted upward; Miss Trembath resumed her former position as supervisor of primary work, in which capacity she has for years rendered valuable service; and a sufficient number of extra teachers was added to the staff, so that overcrowded class-rooms and faulty classification were no longer necessary. For those who wish to criticize the general condition of the schools, it would be well to remember that the ground lost during those trying months, when conditions were so unfavourable, cannot be regained as speedily as it was lost.

During the year the school-garden movement made some advancement in this division of Inspectorate No. 3. Twenty-four gardens were conducted in accordance with the plans submitted to the Department. They were distributed as follows: Burnaby, 12; Delta, 7; and the sixteen city schools, 5. In Burnaby some of the gardens were not a success. The teachers and pupils did their part faithfully, but the trustees failed to supply sufficient quantities of fertilizing material. When this is neglected, I consider that teachers would be justified in declining to undertake this phase of school-work.

Although there was much that was disappointing, many were the encouraging features of the year's work. It was a pleasure to confer with a Municipal Inspector, capable and energetic, conscientious and fearless; to discuss methods and outline work with supervisors, zealous and

effective in the pursuit of duty; and to mingle with so many principals and teachers, faithful, sympathetic, yet efficient in the performance of their daily tasks. The tone and standing in a number of class-rooms were excellent and the general average in this respect fairly satisfactory, but the general efficiency would be greatly increased if the Boards would make bold to replace the few weak or indifferent teachers by thoroughly competent ones. A policy of patient waiting, continued too long with such cases, is a source of weakness, and inflicts grave injustice upon innocent children.

The prizes awarded under the conditions of the Strathcona Trust for competition in physical training were won by Miss Alice R. Rines, 4th Division, Lord Nelson School, Vancouver; Miss Margaret A. Gray, 1st Division, Kingsway East School, Burnaby; and Mrs. Stella Bermingham, 4th Division, Laura Secord School, Vancouver.

I have, etc.,
J. T. POLLOCK,
Inspector of Schools.

INSPECTORATE No. 4.

VICTORIA, B.C., October 26th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I beg to submit the following report on the public schools of Inspectorate No. 4 for the school-year ending June 30th, 1917:—

The boundaries of this inspectorate coincide with the bounds of the Municipality of South Vancouver. Although a rural municipality, city conditions apply to the majority of its fourteen public schools. In this regard the inspectorate has been well served by the two attendance officers who have been in the employ of the Board for several years. Prompt and continuous attendance at school is a recognized factor in any large school system. Working in conjunction with these officers, the principals are able to report excellent percentages of attendance, in most cases well over the 90-per-cent. mark. I am pleased to be able to report that the previous high average attendance has been well maintained for the year under review.

For the smooth working-out of the thousand-and-one details of any school system an efficient secretarial department is necessary. It is essential that supplies be promptly forwarded to the schools; that notices of meetings and other routine matters be carefully attended to; that substitute teachers be quickly provided in case of illness of the regular incumbent, etc. And it is also necessary, in order that the best results be obtained, that the secretary's department be in sympathy with the teachers and able to appreciate and understand their trials and difficulties. In this respect the municipality has of late been particularly fortunate. And I wish here to give due appreciation of the helpful counsel and courteous consideration accorded me in my many visits to the Board offices.

There are schools, and schools. All have tone, a character, an air, which very soon delights or oppresses the visitor as he moves from room to room, listening to the teaching and conversing with the members of the staff. Needless to say, the young children are easily affected by this tonal quality in the school and soon react to its influence. The underlying elements of what may be said to produce a good or healthy tone in a school have provided a fascinating study throughout the year. Undoubtedly the lines of influence reach back through teachers to the principal, and through the principal to the School Board. For some time the municipality has been the fortunate possessor of a wideawake, progressive Board of School Trustees. Its members have not been backward in reprimanding indifferent work on the part of the teaching staff, and in like measure they have been quick to promote promising teachers to higher positions at a good rate of pay. It has been my endeavour to keep the Board closely in touch with the school situation, neither covering up defects nor condoning faults. And I believe that a School Board actively in touch with the school problems is a great power in the toning-up of its school system.

It is true that a principal wields a marked and immediate influence over his school, and that the really strong principal stamps his school with his individuality. Does the staff arrive on time? Are reports promptly handed in? Are the time-tables followed? Are there frequent and well-planned staff meetings? Is discipline maintained? And many more such questions come

hurrying for an answer. It has been my good fortune to be the Inspector in a district where the principals are alive to this side of the school activities. Regular and well-planned meetings of the principals have been held throughout the year. Topics of general interest have been discussed and a solidarity and clarity of purpose engendered. Each has given of his best.

Added to this there has been throughout the year loyal, intelligent support from the teachers at large. The classes were in most instances well graded, properly taught, and making good progress.

It is then gratifying to note that a larger number of Entrance candidates presented themselves for examination in June. When it is understood that the public-school pupils enrolled do not now reach by several hundred the high-water mark of 1913, the statement is all the more praiseworthy. Over 90 per cent. of those writing received certificates permitting them to enter high school. The outlook for 1918 is equally promising.

Although I have at some length pointed out the underlying principles to which these results may be attributed, there remain numerous avenues along which improvement may be secured. One of these is the immediate organization of a library in each school in this inspectorate. This is a move I have earnestly desired, but so far little has been accomplished. It is true that the Board has replenished and increased the Supplementary Readers. This was a wise and much-needed step in advance. But the school library *per se* is as yet conspicuous by its absence.

A large sectional book-case adorns (if an empty one may be said to adorn) the office-room of each school. A set of the "Book of Knowledge" was several years ago purchased for each school, and although these volumes are replete with good pictures, I have yet to see one of these books used before a class, either to illustrate a point or by reference encourage in the pupils the desire for further information. The fact is that the pupils of this inspectorate have not acquired the reading habit. What a world of information, of beauty, joy, and sunshine awaits them in between the covers of our best literature.

What is vitally needed are fairy-tales for the Junior Grade and a good assortment of child verse; travel and adventure for the Intermediate Grades, with more poetry; and a well-graded set of history and geography readers for the Senior Grade, together with good stories and a wide range of our best poetry. It is quite in order to insist on the practical in education; on the training of the powers of observation; the cultivation of the powers of analysis and synthesis; to watch the appeal to the motor impulse and play instinct in children; and the other present-day tendencies *ad infinitum*. But there is something more to be desired than mere mental alertness; there is the building-up of a sturdy, clean character in the school-children, a character which will not go to pieces when the great hour strikes. Contact with the present provides one side of this character-building; acquaintance with the best in our race history provides the perspective that lends balance and clarity to this present.

We are at great pains to fit each child of the public school with the power to read, yet we are going only part of the way when we fail to provide suitable material for the complete and satisfying exercise of that power. There is an aching void in every healthy child for the folk-lore of the race, and no literature provides a wider range or better assortment of such stories than the literature of our mother-tongue. Although these points here enumerated are common knowledge, the press of other factors has pushed them somewhat to one side.

I have, etc.,

V. L. Denton,

Inspector of Schools.

INSPECTORATE No. 5.

Vancouver, B.C., August 28th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

Sir,—I beg to submit the following report on the public schools of Inspectorate No. 5 for the school-year ending June 30th, 1917:—

This inspectorate comprised the Cities of North Vancouver, Port Moody, and Port Coquitlam; the Rural Municipalities of West Vancouver, North Vancouver, Coquitlam, Pitt Meadows, Maple Ridge, Mission (and four adjacent rural schools), Matsqui, and Sumas; the rural school at

Abbotsford; and the schools on the Mainland and adjacent islands from Burrard Inlet to Smith Sound, and on the eastern coast of Vancouver Island north of Campbell River.

During the year the schools at Gambier Island, Half Moon Bay, Kingcome Inlet, and Strandby were closed; while new schools were established at Heydon Bay, Mill Brook Cove, Shaw Cove, Silver Hill, Skookumchuck, Squirrel Cove, Sunnyside No. 2, and Westview; additional divisions were opened in graded schools in North Vancouver and West Vancouver Rural Municipalities and Powell River, and in two of the schools in North Vancouver City. At the close of the year 174 divisions were open, seventy-one of which were in ungraded schools. It is to be regretted that twenty-six of these ungraded schools were in rural municipalities.

I was transferred to this inspectorate at the beginning of March, 1917; it is therefore impossible for me to report fully regarding the activities of its schools for the whole year. In those schools visited the majority of the teachers were capable and conscientious. Usually the lessons were logically planned and carefully taught. The younger teachers, however, did not always appreciate the importance of careful planning and checking of seat-work. A few of them were unable to make out a workable time-table for an ungraded school. But where the progress was unsatisfactory it was seldom the fault of the teacher. More often it was due to irregular attendance of the pupil or to improper lighting, heating, and ventilation of the school-house. In localities where consolidation of schools is practicable, teachers are wasting time over classes containing only a few pupils. In the smaller schools scattered along the Coast and on the islands a serious defect was the lack of interest shown by the parents and trustees; in many cases the voters do not take the trouble to attend the annual meeting and to elect suitable persons to be trustees. Though the teachers' expenses have increased greatly during the past three years, their salaries have not, except in rare instances, been raised, and in some cases they have even been reduced; in buying teaching ability, as in buying anything else, a School Board obtains about as much as it is willing to pay for.

The prizes for physical training were awarded as follows:—

First—Miss M. N. S. Johnston, Division 2, Port Moody.

Second—Miss E. M. McAdam, Division 7, Queen Mary School, North Vancouver City.

Third—Miss F. A. Wilkinson, Division 4, Queen Mary School, North Vancouver City.

I have, etc.,

LESLIE J. BRUCE,

Inspector of Schools.

INSPECTORATE No. 6.

NEW WESTMINSTER, B.C., September 1st, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I have the honour to submit the following report on the schools of Inspectorate No. 6 for the school-year ending June 30th, 1917:—

As stated in my last report, Inspectorate No. 6 embraces the schools within five municipal school districts—viz., the City Districts of New Westminster and Chilliwack and the Rural Municipal Districts of Chilliwack, Langley, and Surrey—as well as the assisted schools at Barnston Island and Cultus Lake.

During the year under review 135 rooms were in operation, two less than the year before. At the end of last term two rooms were closed, one at Tynehead, in the Municipality of Surrey, and one at Belmont, in the Municipality of Langley. The 135 teachers within the inspectorate were apportioned as follows: New Westminster City, 55; Chilliwack City, 9; Chilliwack Rural Municipality, 25; Langley Municipality, 20; Surrey Municipality, 24; Barnston Island, 1; Cultus Lake, 1.

No new buildings have been erected during the year within this district, but a considerable effort has been made to improve school property. The offer of the Department to bear part of the cost of improving school-grounds has resulted in much being accomplished in this connection. The Langley Board has made a particularly good start by way of improving the school-grounds under its care. The trim appearance of the Belmont School property in the Municipality of Langley is an excellent example of what can be effected by a little effort. Money spent in the

improvement of school property, both grounds and buildings, is money well spent. The children of a district spend a good part of their early years in and about their school and unconsciously are influenced by their environment. Neat, tidy school buildings and grounds teach their own silent lessons.

With very few exceptions, the teachers within this inspectorate worked faithfully throughout the year, although with varying degrees of success. Failure to obtain good results was due in almost all cases to the lack of natural ability to teach and control, rather than to any want of interest and enthusiasm for the work. There is a great deal of truth in the old adage, "Teachers are born, not made." Unless the individual has a natural aptitude for teaching, his work at the best is mediocre. The opening-up of many of the professions and occupations to women, as a result of the present war, will give the high-school graduate a greater choice of work, and those not adapted to teaching will be less likely to enter the profession.

Results in the various subjects of the Public School Course varied largely with the individual teacher. Speaking very generally, however, the work observed in both history and composition in the Intermediate Grade was not very satisfactory. It seems to me that the teaching of history in the Intermediate Grade at the present time is rather indefinite, and that much better results would be obtained if a simple well-written history reader were placed in the hands of the pupils. A well-written history reader in the hands of the children would not only serve as a basis for the work in history, but would be a great aid in the teaching of composition. The children would read and unconsciously adopt the carefully selected words and forms of their history-book. The introduction of the new British Columbia reading series is having a good effect on the teaching of oral reading in the schools, particularly from the standpoint of expression. The books, more especially the First and Second Readers, are being well received by the teachers, and there is every indication that better results in this subject can be looked for because of the bringing-in of this new reading series.

The employment of such a large number of young and inexperienced teachers within this inspectorate is not in the best interests of the schools. In the rural municipality schools alone, about one-third of the teachers who began work in August, 1916, were without experience. The rural schools of the Lower Fraser seem to be a training-ground for young teachers, and while such a condition continues little improvement can be looked for in the general standing of these schools. The third-class certificated teachers, too, who have spent but a couple of years in high school, and who have possibly taken the Preliminary Normal Course only, are finding their way in ever-increasing numbers into the schools of this district.

Although several of the schools did particularly well at the recent High School Entrance Examination, the percentage of successful pupils for the whole inspectorate was fair only. Out of the 315 candidates who presented themselves for examination, 201 succeeded in obtaining High School Entrance certificates. In a number of the rural municipality schools the pass-list was decidedly poor. In my opinion far too many of the children who attempt the Entrance Examination are quite unprepared, and many of our teachers seem to show very poor judgment in encouraging children who have not been well grounded in the public-school subjects, and who are quite incapable of doing high-school work, to present themselves for examination.

A progressive step, educationally, was made during the year in the organization of Teachers' Associations in the Chilliwack and Langley Districts for the purpose, mainly, of increasing teaching efficiency. A number of very helpful meetings have already been held, and there is every indication that better teaching in these districts will result because of the getting-together of the teachers.

It was a pleasure at the close of last term to recommend two of the principals for prizes in connection with the teaching of the Physical Drill Course. Mr. W. T. Fennell, Principal of the Herbert Spencer School, and Miss J. F. Rowan, Principal of the Lord Kelvin School, won first and third prizes, respectively. The winning of these prizes by successful principals refutes the oft-heard statement that the busiest teacher in the school, the principal, has no time to devote to the physical training of his pupils. Mr. W. H. Gray, Vice-Principal of the John Robson School, won second place in the physical-drill competition.

I have, etc.,

G. H. Gower,

Inspector of Schools.

INSPECTORATE No. 7.

KAMLOOPS, B.C., October 27th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I have the honour to submit for your consideration the following report on the public schools in Inspectorate No. 7 for the school-year ending June 30th, 1917:—

This inspectorate includes all the schools in the Electoral Districts of Yale, Lillooet, Kamloops, Cariboo as far north as Soda Creek, North Okanagan south to Salmon River, and Fort George along the Canadian Northern Railway to Yellowhead Pass.

A summary of the schools, municipal, rural, and assisted, is as follows:—

District.	No. of Schools.	No. of Teachers.
Cities	6	21
Municipalities	9	12
Rural and assisted	100	108
Totals	115	141

During the year assisted schools were opened at the following places: Adams Lake, Anderson Creek, Barriere Power House, Big Bar Mountain, Boston Bar, Canim Lake, Chase Creek Lower, Lac du Bois, Pinantan, Robin's Range, Round Top, Watmore, and White Lake.

Assisted schools have been recommended for Cahilty, Chinook Cove, Savona Road, Springhouse, and Vavenby.

The schools at Big Bar, Model Farms, North Thompson West, and Wheeler Mountain were closed during the year, as these districts were not able to keep up the required attendance.

High School Entrance Examinations were held on June 25th, 26th, and 27th at fourteen centres. One hundred and forty-two candidates presented themselves for examination; of these, eighty-three were successful, a percentage of 58.45. More detailed results are as follows:—Cities: Kamloops, 88 per cent.; Merritt, 77 per cent.; Salmon Arm, 77 per cent. Municipalities: Kent, 56 per cent.; Salmon Arm, 40 per cent. Rural and assisted, 46 per cent. The Governor-General's medals, donated for competition at this examination, were awarded to Grace Austin, of Kamloops, and Leslie W. McKay, of Agassiz.

Physical exercise finds its place on the time-table in all schools, and in general it is carried on in a systematic manner. The prizes for proficiency in this subject were awarded as follows:—

First—Mr. W. E. Graham, Division 4, Kamloops.
Second—Miss F. E. Mercer, Division 2, Hope.
Third—Miss Charlotte Hayes, Division 2, Notch Hill.

The introduction of school-gardens does not meet with the support that it should in this inspectorate. Few new ones have been started. The continuation of the summer school classes in rural science this year should be an incentive for more of the teachers to take up the work.

School-ground improvement has shown little progress. Unfenced, partly cleared, and partly graded playgrounds are found in too many communities. The school trustees have been trying to retrench in every way possible, and I find little money being spent on the school-grounds or in repairing the buildings.

Penmanship and neatness of written exercises show improvement in the majority of the schools. A low standard on the part of the teachers and want of proper supervision are responsible for the slovenly, careless exercise-books that are found in some school-rooms.

Composition is still backward in too many schools. The reproduction of stories, reading lessons, oral history, etc., is too often a method of keeping the scholars occupied rather than a means of improvement. Sufficient care is not taken by the teachers with the mechanism of composition. The use of capitals, ordinary punctuation-marks, sentence-structure, and paragraphing must be understood and practised by the student.

Oral history in the Intermediate Grade is not producing the desired results in the ungraded schools, especially in those where first- and second-year Third Reader classes are to be found.

The teachers find difficulty in giving sufficient time to the subject when all classes are represented. Some of them are not familiar enough with the subject to give interesting, instructive lessons.

Written reproduction is not supervised or corrected, and the pupil goes on to another historical character without any real knowledge of the one he has been studying. The student passes on with a disconnected, unrelated mass of information that gives him no real foundation to build upon in the Senior Grade. I do not infer that this is the result in all ungraded schools, but it is true in too many of them.

The other subjects on the Course of Study are being handled in the majority of schools in a careful, painstaking way. I seldom find teachers who are deliberately trying to shirk. They are sometimes confronted with unfair criticism on the part of the uninformed, and receive poor support from the parents and trustees. They live in remote and sparsely settled sections of the Province, and are in many cases poorly provided with the equipment necessary for class-room work. In the face of adverse conditions they are giving the schools honest, faithful service.

The loyalty of our teachers in answering the call of the Mother-land is very noticeable throughout this inspectorate. Out of the 141 teachers employed there are but nine males, and of these five are beyond military age. The lady teachers have endeavoured to do their share by assisting in Red Cross work in the community, by raising funds for hospitals and relief, and by encouraging the increased production of food.

In conclusion, I beg to thank you, the trustees, and the teachers throughout the inspectorate for the courtesy and kindness extended to me in carrying out my duties throughout this year.

I have, etc.,

JOHN MARTIN,

Inspector of Schools.

INSPECTORATE No. 8.

VERNON, B.C., October 20th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I beg to submit the following report on the public schools of Inspectorate No. 8 for the school-year 1916-17:—

The number of teachers employed in this district, which comprises the Okanagan and Similkameen Valleys, shows a slight increase over that of last year, sixty-four being engaged in the city and municipality schools and sixty in those of the rural districts. In addition to these, special instructors in manual training, domestic science, and elementary rural science are employed at Armstrong, Vernon, Kelowna, and Penticton.

During the year new rooms were opened at Kelowna, Penticton, and Princeton; new schools at East Princeton, Trout Creek (Summerland Municipality), and Meadow Valley; while others are to be in operation after the summer holidays at Osoyoos, Grandview Bench, Mountain View (Spallumcheen Municipality), together with a new room to be opened at Armstrong. Modern and excellent two-room schools were erected by the Government at Mara, Oyama, and Okanagan Mission; a new school at Trout Creek (Summerland); and a two-room addition, with modern heating and sanitary equipment, is in course of completion at Princeton.

In an inspectorate such as this, consisting largely of rural areas, an Inspector's best services to the community and to the cause of education lie in the assistance he is able to render to the rural schools. Teachers in the larger graded schools of the urban and rural municipalities usually have the advantage of an experienced principal's advice and co-operation; with the rural-school teachers the case is very different, and apart from the Inspector's visits they have to depend upon occasional conferences with their fellow-teachers in the neighbourhood and upon the support of the school trustees and of others interested in education. Under the circumstances it is surprising that so much, rather than so little, is accomplished; but it becomes increasingly apparent that, in the more settled areas where the population is not too sparsely scattered, the problem of the hour is that of consolidating the schools.

Even with the recently lowered minimum of attendance, schools have to be closed for lack of sufficient pupils, with definite loss to the children and to the country; for the pioneer is thereby discouraged, the very man whose services are essential if the remote and potentially

productive areas are to be opened up. In some cases transportation to the nearest school would meet the difficulty and would prove cheaper than maintaining a separate school, a solution impossible at present owing to the requirement that any consolidated school must provide at least two teachers. Moreover, although consolidation demands the existence of a large school district, a premium is at present placed upon the establishment of small ones; for in the larger area the trustees are not empowered to provide transportation, nor can they claim Provincial aid to that end, even though the grant of such financial assistance prove cheaper to the Government than the maintenance of separate schools within the district. A very real benefit would be conferred upon some of these rural communities by extending and rendering more elastic the conditions under which consolidation can be effected.

Although the public schools cannot be regarded as responsible for definite vocational training, there is an unmistakable tendency towards the establishment of a closer connection between school-work and the activities of the outside world; recognition of this principle is evidenced by the efforts of various Trustee Boards towards providing materials and equipment for hand-work of all kinds, and by the introduction in the graded schools of Enderby, Armstrong, Vernon, Kelowna, and Penticton of courses of instruction in the manual arts, domestic science, and practical rural science; indications point to a further and wider extension of this movement.

The requirements of the Strathcona Trust have been complied with in regard to regular physical instruction in the schools, the awards this year going to the following schools and divisions:—

First—Kelowna School, 1st Division (Mr. James Gordon).
Second—Penticton School, 3rd Division (Miss I. R. Hartinger).
Third—Mabel Lake School (Miss D. Magowen).

The work done in the schools has for the most part been entirely satisfactory, the results accomplished—judging from any reasonable standard—being quite up to that of other years; the teachers are sympathetic and earnest, capable, and ready to adopt any suggestion making for a higher standard of efficiency. The shadow of the war nevertheless rests over the land; not more than a dozen men were teaching in this inspectorate, and most of these are ineligible for military service. Among those who have given their lives for the cause of humanity none stood higher in the esteem of children, teachers, or the general public than Mr. T. Rankine, late principal of the Armstrong School; his splendid sacrifice for his country was but the logical sequel to a noble and unselfish career to which all who knew him love to bear witness. As the schools and teachers follow the even tenor of their way, far remote from strife and bloodshed, there appears to be some danger lest the world tragedy now being enacted be forgotten or ignored. By its issue (to all the schools) of the "Children's War History" and of suitable war pamphlets, in particular that dealing with the "Scrap of Paper," the Department has clearly indicated its attitude in the matter. In this fourth year of the war its events are fast becoming history, and as the children grow up in this war-time environment they should, according to their capacity, be led to understand the meaning of the mighty struggle, and to worthily appreciate that spirit of self-sacrifice which has prompted those noble deeds of heroism which are of daily occurrence, and which have too often involved the loss of loved ones. This responsibility rests upon all who are engaged in the work of education; in the honourable discharge of it we are no less paying a debt to Canada than to those whose sacrifices throw into the shade anything that we at home may be called upon to suffer or endure.

I have, etc.,
ARTHUR ANSTEY,
Inspector of Schools.

INSPECTORATE No. 9.

Revelstoke, B.C., October 26th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

Sir,—I beg to submit herewith the following report on the public schools of Inspectorate No. 9 for the school-year ending June 30th, 1917:—

During the year assisted schools were opened at Blueberry Creek, on the Lower Columbia, about six miles south of Castlegar; at Coltern, between Eholt and Phoenix; and at Parson, in the Upper Columbia Valley, about twenty-three miles south of Golden. A school for Doukhobors was opened at Glade, on the Lower Kootenay, about ten miles east of Castlegar, and a second division was opened in the Doukhobor school at Brilliant. In the Trail School District, where there has been a very large increase in the school population during the past year, three new divisions were opened in the Central School and a one-room ward school was established on Smelter Hill. The assisted schools at Galena, Ingram Mountain, and Rogers Pass were not operated during 1916-17 owing to the lack of a sufficient number of pupils to keep up the required attendance. There were in all eighty-five schools in operation in this inspectorate during the year, with a total staff of 143 teachers, an increase over last year of two schools and seven teachers. Of these, nine were city schools with a total staff of sixty-two teachers, two were graded rural schools with a total staff of six teachers, and the remaining seventy-four were ungraded rural schools and assisted schools, one of the latter consisting of two divisions. (In connection with the Doukhobor schools referred to above, it may be of interest to note that since midsummer a new school has been opened for the community children at Krestova, in the Slocan Valley, and another in the Pass Creek Settlement, a few miles from East Robson, while a second division has been opened at Glade. Arrangements are now under way for the establishment of a school solely for Doukhobors on the community property near Grand Forks, and it is hoped to have the opening of this school take place at an early date.)

Taking all the circumstances into consideration, the teachers are maintaining fairly well the standard of good work noted in previous reports. Entrance Examinations were held at eleven centres in June last, when 226 candidates from the public schools presented themselves. Of these, 152 were successful, a percentage of 67. It is gratifying to note that two of the five medals distributed among the successful candidates from rural schools were obtained by pupils from this inspectorate, one being awarded to a pupil of the Trout Lake School and another to a pupil of the Christina Lake School.

The voluntary contributions by pupils and teachers to the various patriotic funds have been well maintained and total a very considerable sum. Any teachers who are in a position to contribute regularly to one or more of these funds but have not yet done so should lose no time in "signing up," and should then see that their payments as promised are promptly met. The children, too, should be encouraged to continue and extend their praiseworthy efforts in this direction.

In many of the rural and assisted schools the problem of keeping the children supplied with pencils, exercise-books, etc., is a source of considerable anxiety to the teacher, as such supplies are expensive and sometimes difficult to secure, while without these materials the best work cannot be demanded. In these same schools the problem of efficient janitor service is one which the trustees have in too many instances failed to solve. Recently, however, both difficulties have been overcome in a few schools by a little sensible co-operation, the pupils doing the janitor-work in turn under the supervision of the teacher, and the trustees using the money thus saved to purchase the needed supplies. In times like these, when "economy" and "co-operation" are watchwords in the campaign for national thrift, it would seem that some such plan as this is worthy of being more widely adopted.

To take up a slightly different phase of the financial question it may be pointed out that in a number of school districts the practice of voting an assessment much beyond the actual requirements of the district is being followed in order that the advance of 75 per cent. for which provision is made in section 80A of the "School Act" may cover all the expenditure really necessary during the year for which the tax is levied. This seems to me a very dangerous

practice, and I think the ratepayers of the various districts would be well advised to avoid any such doubtful procedure in connection with their assessments for school purposes.

I have, etc.,

A. E. MILLER,

Inspector of Schools.

INSPECTORATE No. 10.

NELSON, B.C., October 26th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I have the honour to submit the following report upon the public schools of Inspectorate No. 10 for the school-year ending June 30th, 1917:—

The Gray Creek School has remained closed during the year, and the Mirror Lake, Morrissey, and Crowsnest schools have been closed on account of their inability to maintain the legal minimum attendance. A new school has been established at Wanklyn, and another authorized, though not yet opened, at the Florence Mine. There have thus been in operation during the year eighty-three schools, employing 157 teachers.

A number of old and inconvenient buildings have been replaced by new Government schools. A new two-room building has been erected at Silverton, and another has been authorized at New Denver. New one-room buildings are in course of erection at Corbin, Bull River, Baynes Lake, and Slocan Junction.

The Fernie School Board are in urgent need of additional suitable accommodation for their Public School and High School classes, three of which are at present housed in makeshift quarters—such as church basement and school corridor—whilst no rooms are available for Manual Training and Domestic Science classes. The Nelson School Board appointed efficient manual-training and domestic-science teachers at the beginning of the school-year. In January, however, under some slight pressure from the City Council, they consented to abandon again these newly reopened classes. Public opinion, fortunately, came to the rescue, and the trustees reconsidered their reconsideration, deciding eventually to maintain these departments, in which good work, educational as well as practical, has been done throughout the year.

With special reference to the country schools, the question is continually being raised—and cannot be answered by a blank affirmative—whether the public is receiving an adequate return for the expenditure on education. A reference to last year's Annual Report, page 15, shows that the sum paid towards the salaries of teachers in country schools, $426,330, is nearly one-third of the total sum expended by the Government on education proper. Two ways there are, I believe, which would operate: (*a*) To lessen the proportionate expenditure; (*b*) to secure a greater proportionate return from the expenditure now made on country schools. There is, in the first place, the method—provided for by section 95 of the "School Act" and recommended by the Department of Education—the method of consolidating the schools of adjacent rural school districts in a central graded school. This method, which has made considerable progress in certain other Provinces and in the United States, has peculiar difficulties to overcome in this Province owing to the nature of the terrain, in addition to the ever-present jealousies of the country population. To overcome these difficulties it may be necessary to remove the decision from local influences and place it in the hands of the Council of Public Instruction, and perhaps, also, to increase the proportion of the grant in aid of transportation. But, even when the consolidation of such schools has been carried out to the full, there will still remain a large number of schools—and these the least efficient of all—which, owing to isolation and other insurmountable obstacles, cannot be brought within the scope of this measure. The maintenance of a large number of small schools with a separate teacher for some six to nineteen children—and there are some 380 such schools—is an exceedingly expensive and equally inefficient arrangement. It would result in a great economy, and in a vast increase in the efficiency of education and in the welfare both of the child and the State, if the Government were to close such schools and were to collect the children now attending them at a suitable number of central boarding-schools, paying all the expenses of such children to and fro and while at such boarding-schools. The great improvement in the education, training, habits, physical welfare, and mental and moral

outlook of the children would, I believe, soon overcome preliminary objections and establish such schools firmly in the public favour.

I turn now to a criticism in some detail of the teaching of one or two of the fundamental school studies.

Reading.—In this subject I find teachers usually confining their questions to the literal meaning of the words and expressions used. Some of the more thorough proceed to allusions and to historical and geographical references. Very few illuminate and impress the thought by relating it directly to the intimate personal experience, observation, and surroundings of the child, or by inviting the child's own judgment upon the matters concerned. Few teachers question for the *feeling*, or, if they do so, question further with the object of associating such feeling and the manner of reading in the child's consciousness; though this is essential, for, in order that expression may correspond with feeling, that feeling must be not only known, it must be *felt*. While some teachers touch on the moral significance of the lesson, few relate it in a really intimate and gripping way to the sphere of the child's own conduct; though to do so is, alike from the view-point of the child and the State, supremely important,

When it comes to the actual oral reading of a passage, I find teachers trying to secure expression by such methods as, "Listen to me," or "Tell it to me." These methods have some value, but that they are not sufficient is shown by the state of reading in the public schools; the first method quoted tends to produce a parrot-like style; the second, a colloquial style. Such methods are, in fact, merely *expedients;* they are not intelligent, for reading should be neither imitative nor colloquial; and—this is their great defect—they are not psychological, they do not *teach*, they do not put the child to the test, they do not call upon it to use its own powers. Emphasis and phrasing must be taught systematically, by illustration and question, from the start, or even the fullest preparation, such as has been indicated above, will not produce good readers.

Writing.—This is a subject the teaching of which in the public schools is admittedly unsatisfactory, chiefly, I believe, because of a failure to grasp and carry out in all its implications the method indicated by the Department of Education in the issue of Writing-pads 1 and 2. Form, whether of a word or of a letter, is so manifestly, always and everywhere, the *result of movement* that one can but wonder to find teachers who fail to realize it. The teaching of reading and of number call for the early recognition and making of form, and, in order that the teaching of these subjects should not be held up, form must be made by a movement so simple and so natural to the young child, so fitted to the actual physiological development of brain and muscle already reached, that the movement itself may require the least possible attention from the child. This movement, indicated by the Department in the issue of the large pads as the one to be used, is known as the "free-arm movement." The children, generally, employ this movement in writing on the blackboard and the writing-pads; but when they are required to copy form, either letters or figures, at their seats, instead of being required to use the movement indicated and already known and employed by them on board and pad, *they are allowed to drop their arms on the desks, thereby making the "free-arm movement" impossible* and forcing them into use of finger and wrist—the foundation of those bad habits, on the imperfect overcoming of which so much time and energy are subsequently lost. It is of first importance, if the children are to develop easily into good writers, that these bad habits should not be formed and that the "free-arm movement" should be maintained in their seat-work. The reason for the failure to maintain the "free-arm movement" in their seat-work is to be found, I believe, in the small size of the writing material, such as scribblers, provided for the children's use. *The movement and the material do not accord;* and, since the movement offers no alternative and the material does, the material ought to be changed. In other words, the children should be provided for their seat-work with large blank pads—similar to those issued by the Department—and on these pads all their seat-work, both letter and figure, should be made, the size being gradually reduced until they are about half-way through the Second Primer. In default of such pads, the scribblers should be opened at the middle and the double page used. The children should not be expected, and must not be allowed to attempt, to make small-size form at first; if they are, their arms will inevitably fall on the desks, the free movement will be lost, and the bad habits immediately appear.

But the "free-arm movement," though the only physiologically suitable movement for young children, is not adequate to the demands of the higher grades. For the work of these grades a

more difficult movement, known as the "muscular movement," has to be acquired. This movement, takes time to teach, demands for its mastery concentration and practice on the part of the child, and should not, therefore, be used for the making of form until it has become largely automatic. Such facility should be approached before the No. 1 Copy-book is introduced; that is, by the time the child is about half-way through the Second Primer. To secure this facility a "muscular-movement" drill should be introduced after the child has been, say, a month at school, and practised daily. This drill should be for *position and movement only;* no form should be allowed or attempted until the position and movement have become well established and automatic. *Then* the form (which has been learned by the "free-arm movement") and the muscular movement (which has been learned independently) can be brought together, and the children are able to continue their form-making by this movement, unburdened by the bad habits which otherwise delay and distract both themselves and their teachers.

Space will not allow detailed criticism of other subjects, but I wish to touch, in passing, on:—

History.—History is too often presented merely as a school study; it is not presented to the children as *their* story, the story of their fathers; the story that tells them how they came to be what they are, and how and why they came to be where they are; how their independence was conquered abroad, and their liberty established at home; a story not yet finished, and in the making of which each of them has a part to play for good or ill.

Grammar.—This is another subject which is too often divorced from life, whereas it should provide an exploring expedition through the realms of language, a succession of discoveries, which other people have made before, and which the children are now going to make on their own account, of the origin of language and of the way in which it has gradually become customary to group, to vary, and to arrange the "parts of speech" of which language is composed, in order that their meaning may be clearly understood.

Physical Drill.—Although it is well known that physical drill is compulsory in this Province, some teachers and some trustees affect to treat the carrying-out of the regulation in this matter as subject to their own discretion, and ignore the benefit to be derived by the children from the *regular* use of these exercises. The commonest defects noticed are:—

(1.) Too short a time is allotted to the drill, with the result that some kinds of exercises are squeezed out altogether and a one-sided development is produced.

(2.) The order in which the exercises should be taken, as indicated in the tables, is seldom observed.

(3.) Each exercise is not repeated often enough to make it of value.

(4.) Insufficient care is given to the details of position and of the execution of movements.

The text as a whole is not studied by teachers. If a representative from each of the eight groups in a table is included in the day's drill, as should be done in order to secure an all-round development, and the requisite "easy" intervals are allowed, it will be found that fifteen minutes a day is none too much time to do the work in properly. A truer sense of the real value of this subject and better results in its teaching might be secured if Entrance pupils were required to pass in it, as they now are in manual training and domestic science, where such subjects are taught.

The Fernie Public School has done the best work in this, as in other directions, during the year.

The Flag.—The flag and what it stands for are too often forgotten. The regulations regarding its hoisting and lowering are often ignored. There should be at least one annual lesson on the flag, preferably near Empire Day; and the suggestions regarding the hoisting of the flag on the first day of each term should be zealously carried out by the teachers concerned.

The suggestions and criticisms made in this report must not be taken as overlooking much good work that is being done in many cases, particularly in the larger city schools; they are made only in the hope of assisting in and encouraging the continuous improvement for which we all ought to strive.

I have, etc.,

ALEX. J. DOVE,

Inspector of Schools.

INSPECTORATE No. 11.

Prince Rupert, B.C., October 19th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

Sir,—I have the honour to submit the following report in respect of the public schools of Inspectorate No. 11 for the school-year ending June 30th, 1917:—

The boundaries of this district remain unchanged from last year; included within it are the Electoral Districts of Atlin, Prince Rupert, Omineca, Fort George, and the northern portion of Cariboo. It is almost wholly in the pioneer stage of existence, and necessarily has an isolated population; hence much of my time has been taken up with organization-work. The tremendous distances covered—over 20,000 miles in all—coupled with infrequent and irregular means of transportation, rendered a satisfactory supervision of schools quite impossible. All schools in the district, save Ootsa Lake, Chief Lake, Barkerville, and Kitimat, were inspected once during the year, and forty-two received a second visit.

Schools were opened for the first time at Alice Arm, Osland, Kitimat, Pacific, Houston, Nechako, Cariboo, Giscome, Sisters Creek, Hilborn, Glencoe, and two additional divisions at Granby Bay; schools have also been authorized and will be in operation during the approaching school-year at Castle Rock, Swanson Bay, Hartley, Central Pouce Coupe, and Tatalaska Lake. Ocean Falls, Queen Charlotte City, and Haysport, which had been closed for some time, were reopened; while Skidegate, Engen, and Newlands were closed. Smithers, Ocean Falls, and Granby Bay were raised to the status of regularly organized districts; Masset and Queen Charlotte City were reduced to assisted schools. In all, sixty schools, employing eighty-one teachers, were in operation; these consisted of the City Districts of Prince George and Prince Rupert and fifty-eight rural and assisted schools.

Despite pioneer conditions, involving lack of funds and a consequent utter dearth in many schools of the simplest necessities, the class-room work on the whole has been gratifying. In a few instances lack of energy or latent inefficiency in the teacher has been responsible for inferior results; a similar condition has resulted, in two or three other cases, from local quarrels. The great proportion of teachers in the ungraded schools have been faithful and energetic and, in many cases, reasonably efficient; the results which they have secured will compare favourably with those obtained in urban districts, where, as a rule, less difficult working conditions are encountered. This is evidenced to some extent at least by the results of the recent High School Entrance Examination; at this examination eighty-nine candidates presented themselves and sixty-one were successful, an average of 68 per cent.; of these, forty-six were from rural and assisted schools and thirty-seven were successful, an average of 80 per cent. Candidates were sent up from eighteen rural and assisted schools, and from twelve of these—Cariboo, Soda Creek, Mapes, Vanderhoof, Endako, Smithers, New Hazelton, Fort George, Copper City, Granby Bay, Stewart, Port Simpson—there were no failures.

The most serious problem from an educational standpoint in Northern British Columbia is the question of single families and small communities in isolated localities. Many cases exist where one or two families with a few children have settled on land miles from the nearest neighbour, and where, under present conditions, these children are growing to manhood and womanhood in comparative if not absolute ignorance. Their parents are quite unable for financial reasons to send them outside to be educated, and in the majority of instances it will be years before ten children—the minimum requirement for an assisted school—are in residence. The reduction this year of the average attendance required from eight to six has been of some value in keeping small schools open, but has no bearing on the question of establishing new ones. The simplest solution would be a reduction in the number of pupils required, but it is distinctly open to question if the additional expenditure would be justified. Another suggestion is the establishment at a central point of a residence school in which all children thus situated might be received; while open to certain obvious objections, this plan would combine a maximum of efficiency with a comparatively reasonable expenditure. The ultimate solution of the question will lie undoubtedly in a revised system of land-settlement, but for some years to come this can hardly be expected. Incidentally it would be well for parents thus situated to realize that they

have obligations to their children, and that a large share of the responsibility for providing a reasonable education rests primarily with themselves and not with the Department of Education.

I have, etc.,
A. R. LORD,
Inspector of Schools.

REPORT OF MUNICIPAL INSPECTORS.

VANCOUVER SCHOOLS.

VANCOUVER, B.C., October 19th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I have the honour to submit the following report on the Vancouver public schools for the school-year ending June 30th, 1917:—

SCHOOL ACCOMMODATION.

A year ago it was generally supposed there would be no increase in the school population of the city during the school-year 1916-17. Consequently no plans were made by the Vancouver School Board for any increase in the school accommodation. The unexpected, however, happened. The school population increased 723 during the year, and the largest increases were in districts having no vacant class-rooms to accommodate more children.

In the Dawson District four temporary class-rooms and a manual-training room were required, and were provided at comparatively small cost. Two rooms—one originally intended for a domestic-science kitchen and the other for a lecture-room—were changed into two class-rooms. Two more class-rooms and a manual-training room were fitted up in the hitherto uncompleted portion of the school auditorium. These alterations served a twofold purpose. They furnished needed class-room accommodation and improved the general appearance of the school.

In the Lord Roberts District the principal's office and a small house, hitherto used as a residence by the janitor, had to be converted into class-rooms; while accommodation for another class was secured by utilizing a portion of the auditorium.

These increases in school accommodation are of a temporary character and by no means satisfactory. Plans should therefore be made at once to provide permanent and adequate accommodation for the increasing school population in these two important districts.

In all other parts of the city the school accommodation has been found sufficient for an increased attendance of children in the graded schools.

Two of the three high schools, Britannia and King Edward, have been using every available room, and that with large classes; while King George High School at the close of the year had only one vacant room in a sixteen-room building. In the light of these facts and in the expectation of Vancouver's high-school population continuing to increase in the future as it has in the past, the necessity for immediate and extensive increased high-school accommodation is apparent.

TEACHING STAFF.

A number of changes took place in the teaching staffs of both the high and the graded schools during the year. In most of these cases experienced teachers resigned or left on leave of absence, and their places were filled by inexperienced or comparatively inexperienced teachers—the best that could be secured for the small salaries offered. These changes naturally militated against success in the schools.

A more serious change, however, than that caused by exchange of teachers took place. A reduction of twenty-four was made in the teaching staff when schools were reorganized at the beginning of the year. This reduction would have proved a serious matter even if the school population had not increased, but with an increasing school attendance many classes soon became much too large and the pupils suffered. In October there were twenty-nine classes in the city with an enrolment of fifty or more. The mistake that had been made in reducing the teaching staff was then apparent, but it was too late to apply a remedy. Suitable teachers could not be secured and the unsatisfactory conditions had to continue till schools were again reorganized in January.

HONOUR ROLL.

More regrettable than any other change in our teaching staff has been that caused by the withdrawal of a number of young men to join the Overseas Forces. The first two years of the Great War drew heavily on our teaching staff.

During the past year the following volunteered: Messrs. C. B. Crowe and Chester W. McNeil, both of Simon Fraser School; F. C. Boyes, of Livingstone School; J. L. Watson, of Kitsilano School; F. Fairey, of King Edward High School; and C. C. Chute, Principal of Hastings School.

In the going forward of these young men our schools have suffered a distinct loss.

SUPERVISION.

Never since I entered upon my present duties as Municipal Inspector did the work in the Vancouver schools need careful supervision as much as it did during the past year, and never did it receive so little. In order to economize, the services of the supervisors of manual training, domestic science, and primary work were dispensed with at the beginning of the school-year.

There were very few changes in the manual-training and domestic-science staffs during the year and the work had been well organized. The teachers in these departments were therefore able to carry on their work fairly well.

With the primary work, however, it was quite different. Classes larger than usual and taught by an unusually large number of young, inexperienced teachers greatly increased the amount of supervision required of the principals in the rooms of their assistants. Instead of having more time for this, as they should have had, they had really less, for the urgent work of supervising the teaching in the primary grades also fell to their lot. It was only to be expected, therefore, that the loss sustained by the schools in dispensing with the services of the supervisor of primary work should be early and deeply felt. Before the close of the first term the principals appointed a deputation to wait upon the Board to urge the reappointment of the supervisor. Their request was granted, the supervisor being reinstated in January.

Besides the reduction in the staff of supervisors referred to above, the reduction of the staff of Provincial Inspectors from three to two also deprived teachers of valuable assistance.

Under such conditions I should have spent more time than usual in the class-rooms. I found, however, it was quite impossible to do so. The reduction of the staff of supervisors increased my office-work so as to leave me less time than formerly for inspection of schools. My office-work was also materially increased by the Board's dispensing with the services of the director of night-schools, thus leaving the organizing of them for the past year entirely in my hands.

NIGHT-SCHOOLS.

The work in the night-schools, in the main, was very satisfactory. The Board made no appropriation for teachers' salaries and consequently no Government grant was received. It was decided, therefore, to try the experiment of making the classes self-supporting as far as tuition was concerned, the trustees undertaking to defray the expense of lighting, heating, and paying the janitors.

The experiment was a success. Thirty classes were organized, with an enrolment in October of 1,102. The fees collected were sufficient to pay the teachers, and the attendance for the session was very good. One weakness, however, was apparent—some of the classes, where individual instruction was necessary, were too large. In such cases I would recommend that the Government allow a grant to pay an assistant teacher if the Education Department favour the continuance of such classes.

The success of the night-schools for the past year may be attributed chiefly to the fact that we were fortunate in having a staff of seventeen experienced and successful teachers, all of whom had previously taught in our night-schools. The head teachers in the various departments did most of the work of organizing their classes; while all teachers, by close attention to business, made my work as general director comparatively light and very agreeable.

GARDENING.

The three school-gardens at Dawson, Fairview, and Grandview Schools were carefully managed during the year, and a new garden was made for the first time at the Tennyson

School. This last garden, worked up out of a well-trodden portion of the playground, was a wonderful success—a source of pride to people of the district and of delight to teachers and pupils.

The home-garden movement has never been more successfully managed than during the past year. Much credit is due to the many teachers who have interested themselves in the garden-plots of their pupils, and thereby encouraged them in their good work.

School Music.

Music in our schools is gradually improving. Never was this more evident than on the evening of May 25th last, when a chorus of about 1,500 school-children delighted with their sweet melodies an audience of over 4,000 citizens in the Arena. To the teachers, as well as to the supervisor of music in our schools, much credit is due for their painstaking efforts to increase the quality and quantity of music in Vancouver.

Cadet-work.

Lieutenant A. C. Bundy, with his staff of twenty-one cadet instructors, has, in spite of adverse conditions, managed to do a good year's work in military drill and rifle shooting. To the members of corps, for whom no uniforms could be obtained owing to the financial depression, much credit is due for the showing they made on inspection-day. They demonstrated that uniforms, even if desirable, are not absolutely essential to success. This is worth knowing when boys are many and dollars few, as at present.

Athletics.

The interest hitherto taken in school athletics was well maintained during 1916-17. A large number of our teachers gave a great amount of time to encourage school sports. Nearly every school in the city had a team or teams in one or other of the leagues. Many closely contested games of football, boys' basket-ball, girls' basket-ball, and baseball took place between neighbouring schools. The spirit manifested by the pupils in these was invariably good, even when facing defeat. As in former years, a number of public-spirited citizens encouraged this form of school activity by offering valuable trophies to be competed for.

Medical Inspection.

Medical inspection was conducted along the same lines as in previous years. In fact, the work was extended and the staff increased by the appointment of a fifth nurse for full time, and a second assistant medical officer for three forenoons per week. An attendant was also appointed for the dental clinic. This released one of the school nurses from duty there in the forenoons to devote her full time to inspection in the schools.

Dental Clinic.

The work in the dental clinic was also considerably extended during the year. Dr. J. M. Jones continued to render valuable service in the forenoons of all teaching-days; and, at the beginning of the second term, the Board, recognizing the importance of dental work, appointed Dr. R. L. Pallen as assistant to Dr. Jones.

Special Classes.

The School for the Blind, opened in May, 1916, was continued throughout the year with an enrolment of six. Several inquiries, however, have been made by parents outside of Vancouver wishing to send one or more pupils to the school.

The attendance in the School for the Deaf, opened with eight pupils in 1915, increased to thirteen, necessitating the appointment of a second teacher. Judging from the number of inquiries by people interested in this school, it is evident the staff will need to be increased in the near future. In fact, the number of older pupils available would seem to indicate that greatly extended facilities for teaching the deaf are urgently needed in this Province.

No extension was made in work for the mentally defective pupils of the city, though the needs of these are not yet entirely met. The apparatus required for manual work in the present school has been added to, however, much to the satisfaction of the teachers and the older pupils.

New School Activities.

Much thought was given during the year to the question of establishing a retiring allowance for teachers. While it cannot be said the question is settled one way or another, the investigation

of the year seems to indicate there is little likelihood of the Vancouver teaching staff, as at present constituted, working out a satisfactory retiring allowance scheme.

Very gratifying results followed the efforts put forth to open an Information and Employment Bureau in connection with the schools. In the month of June many of the principals filed in my office cards giving very full particulars regarding pupils from fourteen to seventeen years of age whose circumstances made it impossible for them to continue in school. At the same time employers of labour in the city were circularized to the effect that they might be able to obtain suitable helpers by applying to the School Board offices.

In July and August suitable positions were secured for a number of young people, and several employers expressed their appreciation of the valuable assistance the Bureau had rendered them free of all charge.

While the work done thus far has been limited, it has been quite enough to indicate the great possibilities of the Bureau for the future. Its work is certain to increase and will have a salutary effect upon boys and girls, especially upon those seeking employment on leaving school.

GENERAL OBSERVATIONS.

As indicated above, conditions have been far from satisfactory, in a number of important particulars, in our schools during the year now under review. The teachers and officials, however, have, for the most part, done good work, putting forth greater effort in the face of greater difficulties. The outlook, too, for the future is brighter, and one is justified in going forward as a cheerful optimist.

I have, etc.,
J. S. GORDON,
Municipal Inspector of Schools.

VICTORIA SCHOOLS.

VICTORIA, B.C., November 16th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I have the honour to make the following report on the condition and progress of the Victoria City schools for the year 1916-17:—

ATTENDANCE.

The school attendance from October, 1916, to October, 1917, is shown in the following table:—

	Attendance.	Divisions.	
1916—			
October	5,096	140	
November	5,039	140	
December	4,915	140	
1917—			
January	5,184	143	1 extra, Boys' Central. 1 „ Burnside. 1 „ Sir James Douglas.
February	5,151	143	
March	5,012	144	1 „ Girls' Central.
April	4,913	145	1 „ Margaret Jenkins.
May	5,006	146	1 „ King's Road.
June	4,874	146	
August	..	..	
September	5,186	151	3 „ High. 3 „ Margaret Jenkins. 1 „ South Park. 2 less. Sir James Douglas.
October	5,224	150	Pembroke School closed.

The above table shows an increase of 128 in the attendance in October, 1917, over the attendance in the same month of 1916.

Divisions.

In the column showing the number of divisions it will be noted that this year there is an increase of ten over the number in December of last year. This was due partly to additional teachers being attached to certain schools which showed overcrowding; partly to increased attendance, especially at the High School; and partly to the reorganization of the Margaret Jenkins and the Sir James Douglas Schools, to which I shall allude in another part of this report.

While some rooms are still overcrowded, the Victoria schools are now in a more satisfactory condition as regards the number of pupils per teacher than they were last year.

Changes in Schools.

For a long time the Sir James Douglas School laboured under the disadvantage of being unable to accommodate, without overcrowding, the large and growing population of the Moss Street District. Attempts were made to divert some of the pupils to the Margaret Jenkins School by changing the boundaries, but it was found to be impossible to make any improvement, worth while, unless pupils were drawn from that part of the district lying on the side of the Sir James Douglas School remote from the Margaret Jenkins School. To do that would have placed the Sir James Douglas School out of its own district, and pupils would have had to pass it in order to reach a more distant school, which would have created much discontent. The plan finally adopted was to create the Margaret Jenkins School a boys' school and the Sir James Douglas School a girls' school, as far as the Intermediate and Senior Grades were concerned, the Junior Divisions remaining mixed classes, with the former boundaries. The boys in the upper grades of the Sir James Douglas District were thus compelled to go farther to reach their new school than they had been accustomed to go, and parents very naturally viewed the change with disapproval. But, when it was pointed out to them that the alternative was the building of a new wing to the Sir James Douglas School, they perceived that it was impossible at the present time to secure funds for that purpose and generally acquiesced in the proposal. The schools as reorganized have now been in operation for two months, the result being satisfactory. It was found necessary, however, to create optional districts, near the boundaries separating the Sir James Douglas District and the South Park and Central School Districts, within which pupils might be considered as residents, for school purposes, of any one of these districts.

An efficient principal has been selected for the Margaret Jenkins School in the person of Mr. W. H. Gee, a teacher of long experience, who had previously filled the position of first assistant in the Victoria West School very satisfactorily.

The Pembroke Street School, attached to the Children's Aid Home, was discontinued at the end of September. That school, as you are aware, was commenced for the purpose of educating the boys of the Home, and, till it was closed, did excellent work under the able direction of Miss Bernardine O'Keiffe, who had a keen interest in her work, which was rewarded not only by the progress of her pupils in the class-room, but also by the success of many of them after leaving the Home. The addition of a number of girls belonging to the Day Nursery, however, and the necessity, if the school were maintained, of coeducating them with the boys, led the Board of School Trustees to discontinue the school, especially as it was always an open question whether it was not advisable that the inmates of the Home should mix as much as possible with other children rather than that they should lose their self-respect by isolation.

Playgrounds and Sports.

The advantage of having organized sports in connection with each school has been long appreciated by the Board. They accordingly have done their best to make and keep up adequate playgrounds, and to erect goal-posts and other fixtures necessary for games. Some of the schools, however, are not sufficiently provided with suitable places for sports; but that matter is occupying, at present, the attention of the Buildings and Grounds Committee.

Formerly, balls, hockey-sticks, baseball-clubs, etc., used to be provided out of a fund placed at the disposal of the schools by the Board of Trustees. The necessity for economy, however, which arose two years ago, caused the Board to discontinue their grant, with the result that, while the schools still continued to have games, the loss of the grant crippled them considerably. Many of the boys were unable, owing to the financial condition of their parents, to subscribe to the sports funds of their respective schools, while, in some schools, the boys who were able to subscribe looked on the footballs with proprietary interest and considered that they had a better

right than the other boys to use them. Some of the schools, also, were unable to provide any footballs or materials for playing other games.

To remedy the consequent falling-off of interest in sports in the schools, a meeting of representatives of the staffs of the schools was lately held in the office of the Board, at which a resolution was passed praying the Board to make provision in their estimates for 1918 for a small grant to aid the teachers in supplying the materials necessary for school games, and thus revive the interest in sports and friendly rivalry among the schools which is always conducive to healthy school spirit.

SCHOOL-GARDENS.

In some of the Victoria schools, notably the George Jay, the Oaklands, the Burnside, and the Kingston Street Schools, school-gardens have received much attention. If there is in any quarter a doubt as to the value of including gardening in the curriculum, a visit to any one of those schools would convince the most sceptical. The educational as well as the practical importance of the training received by the children in the school-gardens can hardly be over-estimated, and it is to be hoped that at an early date all the schools in Victoria will offer their pupils opportunities for such training equal to those enjoyed by the boys and girls of the above-mentioned schools.

HIGH SCHOOL.

The regular work of the High School is reported on to the Department in detail by the Inspector of High Schools, and is therefore only alluded to here. On the whole, it is as satisfactory as can be expected, considering the loss sustained by the staff in consequence of the resignations of many of its most experienced members. Teachers who were largely instrumental in raising the High School of Victoria to a very elevated position among similar institutions in Canada have now left Victoria to continue their educational work in other places. The names of Messrs. Willis, Russell, Putnam, Elliott, Yates, Wood, Richardson, and Misses Burris and Whelen, lost to the roll of Victoria teachers, speak more eloquently than any words of mine can of the change that is now apparent in the High School staff. I do not mean by those remarks to disparage the work or ability of the new teachers. But they would be the first to acknowledge the difficulty of filling the places of their distinguished predecessors. It is to be hoped that the financial circumstances of the city will justify the Board of School Trustees in dealing with salaries in a more generous spirit than heretofore, so as to avoid further loss to the already weakened staff of the High School.

Since my last report a class in agriculture was opened in the High School last September under the tuition of Mr. H. E. Hallwright, B.Sc.A., with an enrolment of thirty-one. The popularity of the class and the enthusiasm of the Victoria pupils is indicated by the fact that they have taken the initiative of inviting the co-operation of those high schools in the Province that have agricultural instruction in forming a High School Agricultural Club. Such an association, by bringing together the students of agriculture from all sections of British Columbia, seems to be highly desirable as tending to advertise and render popular this very important branch of high-school education.

NIGHT-SCHOOL.

Last year I reported the attendance at the night-school for the month ended October 31st, 1916, to be 588. On October 31st, 1917, the enrolment was 545—a falling-off of forty-three students. The decrease is no doubt due to the large number of young men who have either joined Canada's Overseas Forces or are engaged in occupations bearing upon the prosecution of the war. It is satisfactory, however, to note that women are showing by their attendance that they are alive to the necessity of preparing themselves for positions they may be called on to fill owing to new conditions arising out of shortage of male labour.

The Commercial classes are unprecedentedly large, and the number of students in the French class indicates its continued popularity. A new class in salesmanship has been opened, and is satisfactory both on account of the ability with which it is conducted and the interest manifested in the subject by the men and women attending it. The other classes keep up their numbers and are satisfactory; but I regret to have to report that classes in such important subjects as drawing (light and shade, colour), chemistry, and advertising had to be closed owing to insufficient attendance.

Cadet Corps.

The Victoria Schools Cadet Corps shows this year a large increase of attendance, due largely to the enthusiasm with which Captain Ian St. Clair, physical director of the schools, inspires the boys. The corps, however, is greatly handicapped for want of uniforms.

There is a prospect of the affiliation of the High School Cadet Corps with either the 50th Gordon Highlanders of Canada or the 5th Regiment of Garrison Artillery. Should such affiliation take place, the corps will undoubtedly benefit both in popularity and efficiency.

Singing.

The progress of singing in the public schools during last term may be best understood, perhaps, from the following extracts from the report of Messrs. Kent and Sehl, who were so good as to give up much of their valuable time and to lend their great musical knowledge to the School Board in judging the school-singing competitions for the Paterson shields:—

"Among the senior classes there was shown this year an improvement under the headings of expression, enunciation, and two-part singing, which we look upon as highly commendable, although, on the other hand, there is a marked falling-off under the important heading of pitch. . . .

"In the junior classes we are pleased indeed to report a very decided improvement under enunciation, tone quality, and time and attack, also a small improvement in pitch. Under the latter heading the juniors are certainly to be congratulated, as two of their classes secured full marks for maintaining the pitch throughout the three numbers sung. . . ."

It has always seemed to me to be a matter of regret that singing is not taught in the High School, especially since many of its students who intend to become teachers will have to teach the subject in the class-room. A movement is, however, now on foot to remedy this defect.

Salaries.

The matter of salaries has been during the past school-year a source of discontent for the staff and of anxiety for the School Board. Many of our best teachers have left Victoria to accept better-paid positions elsewhere, and I fear there are still more who would follow them if they were not confined to this city by family or other ties.

The experienced teacher is being replaced by young, untried graduates of the Normal School, who, however skilful as instructors and brilliant as scholars they may be—and I am glad to say there are many such on our staff—cannot be expected to have the same influence with and control over their pupils that a few more years of experience will give them. I have alluded above to the teachers who have left the High School. Others, who could be ill spared, have for financial reasons resigned from the public-schools staff. And I repeat my suggestion that, unless some relief in the matter of salaries is given them, and that soon, many others will seek that financial security that they think they are denied in this city.

The Board of Trustees, however, aware that the limit beyond which efficiency is menaced had been reached, have this month restored to the teachers half of the 10 per cent. reduction made in 1915; and they intend to make an attempt before the end of November to equalize the salaries, so that there will no longer be the discrepancy that now exists between the pay of teachers doing equal work and having the same record for efficiency. When that is done and the remaining 5 per cent. restored, it is to be expected that Victoria will recover its former strong position of popularity among the teachers of the Province.

I have, etc.,

Edward B. Paul,

Municipal Inspector of Schools.

PROVINCIAL NORMAL SCHOOLS.

VANCOUVER PROVINCIAL NORMAL SCHOOL.

VANCOUVER, B.C., July 18th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I beg to forward herewith reports for the thirty-second and thirty-third sessions of the Vancouver Provincial Normal School, extending from August, 1916, to May, 1917.

Our summer session commenced on August 21st, 1916, with 280 students enrolled, namely: Advanced, 40; preliminary, 240; and at its close there were granted 207 diplomas, namely: Advanced, 31; preliminary, 177; 32 other students will be given diplomas as soon as they become more proficient in the practical side of our work.

Two of our staff, Messrs. Murphy and Spouse, left for active service, and two other teachers were required in their places. Miss C. McNiven, B.A., was appointed, and Mr. MacLean was transferred from the Victoria Normal School. A rearrangement of our work was thus rendered necessary, which was apportioned as follows: Principal—Psychology, pedagogy, school law, and arithmetic. Mr. H. H. MacKenzie—English and registration. Mr. W. P. Weston—Art subjects and writing. Mr. H. B. MacLean—Nature-study and hygiene, arithmetic. Miss C. McNiven—History and geography. Miss L. A. Burpee—Junior Grade subjects. Miss E. M. Coney—Singing and voice-culture. Sergeant-Major Instructor Wallace—Physical drill.

Our winter session commenced on January 15th, 1917, with 226 students enrolled, namely: Advanced, 186; preliminary, 40; and at its close 195 diplomas were granted, namely: Advanced, 168; preliminary, 27; 5 other students will be given diplomas as soon as they become more proficient in the practical side of our work.

In addition to the usual school-work, the students have engaged in many other activities. Evening classes have been held in first aid and home-nursing, the instruction having been given gratuitously by medical men in the city under the auspices of the St. John Ambulance Association, and the majority of the students in these classes obtained diplomas from that association.

A "Red Cross" society was held every Thursday afternoon after school under the supervision of our ladies, and parcels—158 in all—have been sent to the boys of our school now at the front. Numerous letters of thanks and appreciation for this remembrance have been received from France.

A literary society was held fortnightly, and all the work of arrangement was carried on by the students themselves under the direction of the Students' Council.

Athletics, basket-ball, tennis, and football have all received their share of attention.

I would like to state here that all such activities are voluntary and must only be taken up after school-hours, although they are of such a nature as to be of great ultimate value in the future training of children.

A roll of honour has been made of the names of our students who have enlisted in their Empire's service. This list now contains sixty-one names. There are no doubt several other students who were not reported to me. Eight have given up their lives in the service of their country.

All of our work has been greatly assisted by the kind co-operation of the Municipal Inspector, J. S. Gordon, Esq., and especially of the staff of each of the two schools used for the practice-work of our students.

I have, etc.,

WILLIAM BURNS,
Principal.

VICTORIA PROVINCIAL NORMAL SCHOOL.

VICTORIA, B.C., October 27th, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I have the honour to submit the following report of the work done in the Provincial Normal School at Victoria during the school-year ending June 30th, 1917:—

During the fourth session, which opened on August 21st, 1916, and closed on December 23rd, 1916, there was an enrolment of seventy-seven students. Eighteen of these were taking the Advanced Course and fifty-nine the Preliminary Course. At the close of the session all of the advanced students completed the work successfully. Of the preliminary students, two withdrew during the session, one failed to do satisfactory work, and fifty-six were awarded diplomas. When the fifth session opened on January 15th, 1917, there were in attendance sixty-one students and one entered later in the term. Fifty of these took the Advanced Course and twelve the Preliminary Course. So faithfully did these students devote themselves to their work that we were able to award sixty-two diplomas when the session closed on May 23rd.

By comparison it may be easily seen that the number of students attending during the year 1916-17 was less than attended during the previous school-year. This difference was largely due to the fact that the City of Victoria contributed to the teaching profession slightly less than 50 per cent. of the number it provided the previous year. The number attending from other parts of the Province was much larger comparatively, and provided representatives from Armstrong, Ashcroft, Chilliwack, Coal Creek, Comox, Creston, Cumberland, Duncan, Errington, Fruitvale, Keremeos Centre, Ladysmith, Nelson, Prince George, Prince Rupert, Quesnel, Salmon Arm, Sidney, Stave Falls, Summerland, and Ucluelet.

In August, 1916, our staff was reduced in number. Mr. H. B. MacLean was transferred to the Provincial Normal School at Vancouver. This necessitated a reapportionment of the subjects among the members of the staff, as follows: The Principal—English literature, English grammar, arithmetic, language, reading, psychology, history of education, and physical drill. Mr. D. M. Robinson, First Assistant—History, geography, class management, school law, and physical drill. Mr. Harry Dunnell, Drawing Master and Technical Instructor—Drawing, manual training (including paper-folding, modelling, and woodwork), writing, nature-study (including school-gardening), and physical drill. Miss Lexa Denne—Household science (including cookery, home-nursing, and sewing), hygiene, first aid to the injured, and gymnasium classes. Miss Ida Morris, L.R.A.M.—Music (including singing and choral work), elocution, and voice production. When it is remembered that in addition to class instruction in the above-mentioned subjects each instructor gave individual assistance to the students for their teaching lessons, it is obvious that the burden is not light. Especially is this evident if the amount of individual assistance required is computed from the following statement of practical teaching done by the students. Each student of the class graduating in December taught about *sixty* lessons and each student of the class graduating in May taught at least *forty* lessons in the training-schools.

In addition to the Model School, we were again able to use the Boys' Central, the North Ward, and the Bank Street School for teacher-training purposes. I regret to report that the teachers in these three schools are still permitted to do this extra work without remuneration. That the teachers in Victoria who do this extra work should receive nothing for it while those in Vancouver are paid an extra allowance is obviously unjust. May I again most respectfully repeat the suggestion made in my last year's report, that it would assist materially if the Government would pay from the Provincial Treasury for the extra services rendered by teachers in *all* schools used for teacher-training. Not only would this establish a definite relation between these schools and the Provincial Normal School, but it would remove the unpleasant thought that the necessary assistance rendered by these teachers in the provision of future teachers for this Province was accepted gratuitously. In the meantime I wish to express to the principals of these schools, Mr. J. A. Cunningham, Mr. J. M. Campbell, and Miss A. M. Paterson, and their assistants, my sincere appreciation of the splendid service so generously given.

In concluding this review of the year's work, it is pleasant to recall that the sterner stress of work was supplemented and relieved by the weekly meetings of the Literary Society, the activities of the Athletic Association, the provision of field comforts and constant knitting for

our soldiers, the simple social functions, and the yearly concert in aid of the Red Cross. I am again privileged to state that out of the very small number of male students attending this year two enlisted for overseas service.

I have, etc.,
D. L. MACLAURIN,
Principal.

An excellent garden established at the Lord Tennyson School, Vancouver, 1917.

Part of the home-garden exhibit as shown at the school fair at West Summerland, B.C., 1917.

Garden and greenhouse at the George Jay School, Victoria, B.C. This garden was not neglected during the summer holidays as the photograph taken Sept. 1st shows.

ELEMENTARY AGRICULTURAL EDUCATION.

REPORT OF THE DIRECTOR.

Victoria, B.C., December 31st, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

Sir,—I have the honour to submit the following report dealing with elementary agricultural education for the year ending December 31st, 1917:—

During the year substantial progress has been made in each department of the work as already organized—viz., rural science in public schools, agriculture in high schools, and the improvement of school-grounds. In addition to these usual lines of work, a special effort was made to increase production as a patriotic enterprise. A special report dealing with the results of this campaign will be issued as soon as all of the remittances have come to hand.

Rural Science.

The work in rural science, which includes nature-study, school-gardening, and such elementary agricultural studies as are usually conducted in the public school, is receiving more attention throughout the Province than ever before. There is still, however, great need for a better understanding of the important place this work can be made to fill in the education of children. Our teachers are not being properly and adequately prepared to teach this subject effectively and to give it its full value and relationship in the training of the child in school. It is a subject which can never be bound down to the usual routine methods of the class-room. It is a subject which more than any other demands activity on the part of the pupils rather than mere receptivity. Unfortunately, most teachers fall into the error—all too common in the teaching of all subjects—of stressing the informational side of the subject, thinking rather of the number of facts which the pupil can reproduce than of the added power which has come to him as a result of the study. This personal power is the direct result of the daily exercise of the child's faculties in observing, relating, and expressing, and it will manifest itself in a growing mental alertness and a keener sense-perception, which adds much to his ability and usefulness along other lines. Moreover, in the study of his natural environment the child is coming more and more to understand and appreciate the things and also the forces around him with which he will have to do during his whole life. No amount of gratuitous information about nature, no matter how thoroughly "drilled into him," could ever produce these results. Finally, ability to understand and appreciate nature means also ability to control and develop nature, and this is the fundamental idea underlying all development in the science and practice of agriculture.

Preparation of Teachers.

Our teachers, poorly prepared as most of them are in this subject, are struggling along with some measure of success. Some of them have had marked success, first of all, in training themselves, and it need hardly be said that they are sure to be equally successful in training their pupils. We must look to the high schools of the Province to give to those students who are to be our public-school teachers a fair working knowledge of the experimental and biological sciences, and we must also look to our Provincial University to provide the opportunity and the facilities whereby our high-school teachers can more fully prepare themselves to teach these subjects. Finally, we must look to our Normal Schools to provide adequate means for the training of all our young teachers in methods in rural science. In this connection I wish to point out the desirability of having on the staff of each Normal School a specialist in science and agriculture who is at the same time thoroughly qualified to give instruction in the pedagogics of the subject. Such instructors, if supplied with the proper facilities for teaching the subject and given sufficient time in which to conduct such a course, would revolutionize the teaching of nature-study and elementary agriculture in this Province.

As a subject of instruction rural science is intrinsically interesting. When properly handled it is enjoyed alike by teacher and pupils. Any failure on the part of the teacher to arouse and maintain interest in this subject cannot, therefore, be traced to the character of the subject itself, but is most likely due to the teacher's lack of preparatory training. Rural science is not any easy subject, even to the well-trained and experienced teacher. It calls for much preparation, as well as resourcefulness, on the part of any teacher who would hope to get the best results, but those who have tried and whose efforts have been attended with success invariably state that the good effects resulting in their schools more than counterbalance the extra effort put forth in the teaching of the subject. They also state that the subject of nature-study or rural science is not only invaluable on its own account, but that it gives vitality and added meaning and effectiveness to the teaching of other school subjects. Those teachers who have taken the summer course in rural science are doing much better work in the teaching of that subject, and it is to be hoped that a much larger number will take advantage of these courses in future.

SCHOOL-GARDENS.

The organization and use of the school-garden is coming to be understood and appreciated more than ever before. Its relationship to general education, on the one hand, and to agriculture, on the other, is steadily improving. It is the common meeting-ground for nature-study and agriculture—subjects which cannot be taught so well by any other method—but its influence on child life and character makes it of much greater importance than merely a first-class teaching device. Some of the outstanding values of the school-garden are well stated in the following paragraph from the pen of one of the most capable authors and instructors in nature-study and school-gardening, Miss Jean Patterson, of the Illinois State Normal School:—

"The school-garden seems to supply a natural demand, irrespective of locality. It has a definite mission to fulfil in the city, as well as in the village and rural school. While its purposes may differ in different schools, its value as a factor in education is rarely questioned. It is worth while, not only because of its practical bearings, but because it is very valuable on its educative and esthetic side. . . . Indeed, if the full purpose of the garden-work is carried out, it means more than the training of the hand in doing its part of the work successfully and skilfully. It means a training of the eye to see things as they are, a training of the mind to think logically and independently, to draw truthful conclusions, and to recognize the dignity of this work."

As is to be expected, not all teachers are equally successful in organizing and conducting school-gardens. Teachers' view-points differ widely with reference to this subject, as do also their methods of conducting the work. Some devote too much attention merely to the industrial side of it. To help the children to make and maintain a good garden is their chief concern, forgetting that the broad educational use which they make of the garden in the daily round of studies and of child-experience is the more important consideration. Occasionally, the work has been carried on in such a perfunctory manner as to lead to carelessness, and even disaffection, on the part of the pupils. The most serious error of all, perhaps—one which I am glad to say is seldom met with in this Province—is the tendency to exploit child-labour in the school-garden in order to make a good showing so far as external appearances go. I have seen boys of their own free will spend much time out of school-hours sifting the soil of their plots in order to render it finer and, as they thought, more productive, and even going so far as to sweep all the garden-walks so as to give their gardens a more trim and tidy appearance, but that kind of exercise was the natural outcome of boyish interest and enthusiasm, and as such is commendable when not overdone. If it can always be borne in mind that the child is everything and that the garden is valuable only in so far as it is an agency to be used for his benefit, we will have gardens at once valuable and beautiful. Such gardens may not "pay" in the sense that some school trustees and parents would have them pay—merely as an economic undertaking; but they will pay as a valuable means towards the development of better boys and girls—better mentally and morally and stronger physically.

DIFFICULTIES.

The difficulties and drawbacks that had to be faced in connection with school-gardening this past year have been rather more serious than usual, and in many localities the gardens themselves were not so good as in former years. An unusually late spring followed by an exceptionally dry

summer proved disastrous to many gardens that under ordinary weather conditions are very good. Even more serious, however, than the summer drought in some gardens was the lack of cultivation during the months of July and August, when the schools are closed. The great scarcity of labour which existed throughout the whole Province this past season made it next to impossible in some districts to get any person to work in the school-gardens. Even the school-boys themselves were able to earn good wages with farmers and fruit-growers. In some cases failure on the part of the school trustees in the matter of securing the services of a caretaker would appear to be the real cause of the difficulty. Lack of funds is seldom the cause of this failure to secure adequate supervision of gardens during the summer holidays. It is expected of School Boards that they will provide a minimum of 50 per cent. of the amount of the departmental grant towards the maintenance of school-gardens. Only in a few cases has this been done, and in a number of cases where the gardens fared worst during the past summer the School Boards did not even take advantage of the whole of the departmental grant. These difficulties, though real, are by no means insurmountable. It is largely a matter of interest and appreciation of values, first on the part of the School Board, and then on the part of the teachers. Not until we have a more general appreciation of the place and value of the school-garden in child-education will we be able to make the work completely successful.

Then there is the question of the extra time and energy required to conduct school-gardening. Many teachers look with favour upon the work itself and are appreciative of its value as a part of school-work, but they complain of their inability to carry on this work and at the same time accomplish all that they find to be necessary in the other regular school studies. This is particularly true of teachers who are preparing candidates for Entrance Examinations. So common is this complaint that I have frequently suggested to these teachers that Senior Fourth Reader or Entrance pupils be encouraged to undertake one or two special gardening or agricultural problems at home, so that they would not be called upon to use any of the regular class periods in school-gardening classes. If boys and girls have had instruction in and through school-gardening in the primary and intermediate grades, they should be in a position to derive real profit from the carrying-out of an independent home project in elementary agriculture.

School Credits for Home and School Gardening.

There is a growing feeling amongst trustees as well as teachers that, as school-gardening properly conducted makes some considerable demand upon the time and energy of both teachers and pupils, it should have more official recognition in the way of school credits. This cannot be considered as an unreasonable request, especially under present conditions, when so much stress is laid upon the Entrance Examination and the status of the teacher is, unfortunately, so largely determined by the percentage of successful candidates coming from his classes. It is held that the giving of reasonable credits to pupils taking up school and home gardening would do much to maintain interest in the work throughout the year, and would greatly aid in meeting the summer-vacation difficulty. The system of school credits commonly followed in American schools applies mostly to work done by pupils out of school-hours, and by arrangement can be applied to any or all school subjects. It is probably best, however, when applied to such practicums as the raising of farm or garden crops or the rearing of live stock. The evidence is usually more tangible in these cases and the results more easily checked up by the teacher. If, say, 50 per cent. of the pupils' standing in nature-study and elementary agriculture were based upon their year's work in school and home gardening, or other approved home projects of an agricultural character, I am strongly of the opinion that teachers would accomplish more and better work with their classes. They would feel that adequate recognition was being made in this way for the extra work which these agricultural studies entail. This will be true at least until such times as the subject of elementary agriculture is made compulsory in our schools.

Home-gardens.

Many of the boys and girls who are enrolled in school-gardening also do good work in home-gardening. In other cases where conditions at school make it impracticable to establish school-gardens, the teachers give instruction to the pupils which the latter carry out in gardens at their respective homes. In districts where the children do not leave home for a long period in the summer-time these home-gardens are usually very successful. The spirit of competition is usually introduced, the garden-plots are judged twice during the season, and prizes are frequently offered, either by the School Board or by interested men and women of the district. This is a

part of the work which is capable of great development, and during these times of much-needed food production can be made of great value economically as well as educationally. We look to the teachers in our high and public schools to encourage this home-garden production work during the coming year. There are but few schools in the Province where something cannot be done by the larger pupils, if only the teachers and school trustees will give the work proper direction and support. Ways and means of securing the widespread adoption of this kind of home-work in practical elementary agriculture are now under consideration. As already referred to, some well-regulated system of school credits for home-work of this kind would doubtless encourage both teachers and students to undertake it and carry it through to success.

SCHOOL FAIRS.

As boys and girls who go in for home-gardening or other home projects in agriculture seldom see the results of each other's work at the individual homes, it is desirable that samples of the best produce grown by each pupil should be assembled in the autumn, and that this be made the occasion for a suitable celebration. This exhibition of produce may be included in the annual exhibition held under the auspices of the local agricultural society, or it may be held purely as a school function. The winners are usually determined by judging the results of the season's work, as well as the quality of the produce exhibited. For instance, it is recommended that 100 points be allowed for the organization and care of the garden as determined by two field scores or examinations of the gardens by the teacher or by other competent judges. In the case of poultry, rabbits, or live stock, this score would be determined by the condition of the animals at the time of the judge's visit, the system of feeding and care followed, etc. One hundred points are also allowed on records and business statement as kept by the pupil throughout the season, and, finally, 100 points are allowed on the quality and arrangement of exhibits at the school fair or exhibition.

The following report submitted by Mr. J. C. Readey, B.S.A., District Supervisor of Agricultural Instruction for Chilliwack City and Municipality, shows what can be done by energy and good organization in making a school fair not only an interesting and enjoyable event in the community, but also a valuable stimulus to teachers and pupils in helping them to maintain a high standard of work in the schools:—

CHILLIWACK, B.C., December 31st, 1917.

J. W. Gibson, Esq.,
Director of Elementary Agricultural Education,
Victoria, B.C.

SIR,—I beg to submit herewith my report on the school fair held under my supervision at Chilliwack on October 13th, 1917.

Owing to the fact that the Chilliwack Agricultural Association had cancelled their annual fair for 1917, it was necessary, in order to keep faith with the teachers and pupils of the city and municipality, to hold the annual competitions between the various school-gardens on a separate occasion. The exhibits from the school-gardens were not thought sufficient attraction to warrant the expectation of a large number of visitors, and it was decided, with the concurrence of the two School Boards, to add a special prize-list providing for competitions in manual training, domestic science, and literature as well.

The regular prize-list amounted to $50, and provided prizes for the best exhibits selected by the pupils from their own school-gardens. These were competed for by the one-room schools, two-room schools, and schools with three or more rooms, respectively. The special list provided prizes for bird-houses, feed-hoppers, corn, oats, eggs, biscuits, garden-plans, painting, and English composition, as well as competions in grading potatoes and judging mangels. The special prizes totalled $150, and consisted of cash and goods donated by the citizens of the city and district.

There were 343 entries. A unique feature of the fair was the exhibit of all the produce grown in the school-gardens. This exhibit comprised 7 tons of potatoes, 11½ tons of carrots, and 2 tons of onions, a total of 20½ tons. This produce was sold locally, and the balance of the proceeds, after paying expenses, was contributed to a fund opened by your Department for contributions by the school-children of the Province for patriotic purposes. No admission fee was charged.

The following is a summary of the financial statement:—

Receipts, including proceeds from sale of garden produce and cash donations	$607 85
Disbursements, including prizes, advertising, labour, rental	306 90
Balance to Patriotism and Production Fund	$300 95

The school fair has been a success, and I beg to recommend your approval of its continuance next season.

Respectfully submitted.

J. C. READEY,
District Supervisor of Agricultural Instruction.

A very successful school fair was held at West Summerland under the direction of Mr. C. W. Lees, B.A., Principal of the public school, assisted by the teachers and school trustees. In the afternoon a sale of the produce raised by the pupils at their homes was held, refreshments served, and a number of interesting and novel contests put on, such as hat-trimming for boys and apple-box making for girls. A number of school choruses were given by the pupils during the afternoon. In the evening a public meeting was held, which was well attended both by adults and children of the district. At this meeting I gave a talk on school-grounds improvement and school-gardening, illustrated with lantern-slides. As a result of the sale and other special features the neat sum of $140 was realized for the Patriotism and Production Fund.

Other schools making exhibits at school fairs or other exhibitions and which have been reported as very successful are the following: Cowichan, Parksville, North Vesuvius, Galiano, Denman Island, Fauquier, Happy Valley, Lazo, Port Clements, Victoria City, Grand Forks City, Cranbrook City, Point Grey Municipality, Saanich Municipality.

In Richmond Municipality Mr. Henry Bayley has done some valuable work in connection with school and home gardening. He has always favoured agricultural experimentation and research problems of a suitable character for the older pupils, as his school is in the centre of an exceptionally fine farming district. Obviously, such lines of agricultural experimentation are more applicable to rural school-gardens than to those established in cities, where the children have no knowledge of the every-day methods of cultivation. Referring to his school fair, Mr. Bayley reported as follows:—

"We had a most successful meeting on October 5th. The farmers and others who were present represented a large district. The results of the experiment with oats exceeded my expectations. The best selected plant in our exhibition last year yielded 1,065 well-formed and healthy grains. The children selected the heaviest of these grains, and I divided these into three parts—A, B, C. Part A was planted in our school-garden; parts B and C were given to two pupils for a home-garden experiment. The school-garden oat-plot measured 3 feet 10 inches by 5 feet and yielded 6¼ lb. of grain, which is at the rate of 8,877 lb. or 261 bushels to the acre. This is nearly a ton to the acre more than the same oat yielded in our school-garden plot trial last year. One of the girls planted a plot 5 x 8 feet in her home-garden, using part B of the seed. This plot yielded 8 lb. or at the rate of 8,712 lb. per acre, a result approaching that obtained in the school-garden. The third home plot, in charge of one of the boys, was not carried through owing to an accident in the early stage of growth. Our visitors were very much interested in these experiments with the Leader oats, and I think we plainly proved to them the value of selected seed and hence the advantage to them of selecting their own seed. In our experiment we planted the grains 3 inches apart in rows which were also 3 inches apart, and I suggested that it would be a good experiment to plant a larger area in a like manner to see if this thinner sowing would yield better results than the thicker sowing usually practised. One of the farmers offered to try this out next year, and we have furnished him a large share of our selected seed to do it with.

"The exhibits of seedling potatoes were much appreciated. We had seedlings of 1916 and 1917. A professional horticulturist of good standing on the Coast who saw them advised us to try out at least three of our 1917 seedlings. As a matter of fact, all of the varieties will be tried out next year when they arrive at their full maturity. Two of the children's mothers cooked specimens of three of the varieties and pronounced the flavour excellent. Our exhibit next year should be still more interesting, when 1916, 1917, and 1918 seedlings may be exhibited. One of our visitors inspecting exhibit of potato-seeds and seed-potatoes made up his mind to do a little on his own account in raising potatoes from seed.

"Another exhibit was made up of seeds produced from the selected roots of last year. These included parsnip, beet, onion, carrot, and turnip seeds—all good, healthy seed which in our experiments have germinated splendidly. We also obtained two excellent varieties of bean-seed. We also had an exhibit of field roots selected from the pupils' plots, which were much appreciated."

There are scores of teachers in this Province who have just as much time for this work as Mr. Bayley has, and who might well emulate his example in the coming year.

Mr. Harry Charlesworth, Principal of the George Jay School, Victoria, which, by the way, is one of the first schools in the Province to take up school-gardening, has this year added home-

gardening to school-gardening, his own Fourth Reader pupils taking home-gardening. He reports as follows:—

"In accordance with instructions from the Department of Education, the work this year was carried on with a view to assisting the 'Increased Production' campaign. Each of the pupils took up as much land as possible, either in their own home-gardens or by taking city vacant lots. The growing of potatoes and other vegetables was the main work undertaken and splendid success resulted. The City Council Increased Production Committee offered six prizes open to school-children of Victoria, and of these, all except the third were won by pupils of this school with their home-gardens. The first prize was $15 cash, and the sixth $4 in cash, the other prizes being $10, $8, and $6 in cash. The quantity and quality of the vegetables raised were both very satisfactory, and the parents of the scholars testified to the material assistance in the 'cost of living' brought about by these home-grown products. The value of co-operation was illustrated by three of the pupils, who obtained two vacant lots and shared the expenses of ploughing, seed, etc., each obtaining an excellent return on his investment.

"In visiting the gardens, a noticeable feature was that in almost all cases where scholars had undertaken home-garden work those living alongside had followed the example set by the children, and had cultivated their lots also. One man, who had cultivated his land for the first time, admitted that he had done so because he felt ashamed to leave it lying idle when the scholars were busy next door, and said: 'If youngsters can do so well, there is no excuse for grown-ups to neglect cultivation.'"

The George Jay School is the only public school in the Province which has a greenhouse. Many schools operate hot-beds and cold-frames, but for cities, especially, a school greenhouse has a great value from the economic as well as from the educational standpoint. The following report by Mr. Charlesworth on the plant-house work at this school is more convincing than any argument which I could make in its support:—

"During the autumn and winter cuttings were propagated and in the early spring the seeds were sown for bedding out. Vegetable plants, including cabbage, cauliflower, onions, tomatoes, and brussels sprouts, numbering altogether 1,002 plants, were supplied to five Victoria school-gardens. Flowers for transplanting into school-garden borders, comprising some 2,498 plants of fourteen of the best varieties for school-garden use, were also supplied to these school-gardens from the greenhouse. In addition to this, 4,141 bedding plants for the beautifying of fifteen of the city school-grounds were supplied from our greenhouse. Some 1,500 wallflowers were used in our own school borders, making altogether 9,141 plants produced for our own and other city schools from this one greenhouse. After all the bedding plants and vegetable plants had been removed, the entire plant-house was set with tomato-plants. The proceeds from the sale of the tomatoes, which amounted to $26.90, was contributed to the Red Cross Fund. Some of the tomatoes were made into pickles by the girls in the domestic-science classes and sold, as was also part of the produce from the school-garden. The total amount contributed to the Red Cross Fund from these sources was $37.90."

In the special report which will shortly be prepared full details will be furnished with reference to the contributions and methods adopted in raising the money under the "Patriotism and Production" campaign. A report on the Belgian Children's Relief Fund will also be included in this supplementary report.

SCHOOL-GARDENS IN BRITISH COLUMBIA, 1917.

	Cities.	Rural Municipalities.	Rural and Assisted.	Total.
Number of schools taking up school-gardening (officially enrolled)	29	85	57	171
Number of teachers and divisions in the above schools taking the gardening-work	72	144	63	279
Number of pupils in gardening (all grades)	2,848	3,314	1,177	7,339

In addition to the above, there are a number of schools scattered through the Province where a good deal of attention is given to the cultivation of flower-plots and borders about the buildings and grounds. As we have no definite record of these, it is impossible to make an estimate as to

Interior view of the school greenhouse at the George Jay School, Victoria, where thousands of plants were propagated for the Victoria schools.

A corner in the high school agricultural grounds, Chilliwack, B.C. The crops harvested from these trial plots were exceptionally fine.

Students of the high school agricultural classes at Chilliwack, B.C. The experimental grounds are furnished with a greenhouse where an important part of the experimental work is carried on.

the number of them. Although not officially recognized and reported on, there can be no doubt as to the value of even the smallest efforts of this kind in the schools.

HOME-GARDENS IN BRITISH COLUMBIA, 1917.

	Cities.	Rural Municipalities.	Rural and Assisted.	Total.
Number of schools taking up home-gardening (officially enrolled)	1	5	13	19
Number of teachers and divisions in the above schools taking the home-gardening work	1	5	13	19
Number of pupils in home-gardening (all grades) ..	30	72	148	250

NOTE.—For some years in the City of Vancouver a great many children's home-gardens have been successfully conducted, mostly under the patronage and direction of the Local Council of Women. These home-gardens the Department has had no direct connection with, although many teachers in the Vancouver schools have done a good deal to assist in the work.

Of the 298 teachers who have conducted school or home gardening this year, 88 have already taken the summer course in rural science and 210 have had no such special course. It is a matter of regret that out of the 401 teachers who took summer courses in rural science, only 88 have this year taken up school or home gardening. Whilst it is true that many of these teachers are located in schools where it is not possible to conduct school-gardening, and a number of others have left the teaching profession, yet the fact remains that too large a percentage of teachers holding special rural-science qualifications in this Province have apparently failed to take any active part in the teaching of this subject as it should be taught.

It is also worthy of note that of the 298 teachers who started school and home gardening last spring, 100 either left the teaching profession or took other schools after the summer holidays. This frequent changing of teachers is one of the most serious drawbacks to the progress of all lines of school-work in this Province. It is probably most injurious in the case of school and home gardening, as the incoming teacher has missed the best part of the gardening season, and, being concerned with the organization of all branches of school-work immediately following promotion examinations and being new to the school itself, cannot be expected to accomplish good work.

AGRICULTURE IN HIGH SCHOOLS.

Commencing in August of this year, three additional district supervisors were appointed, as follows: W. J. Austin, B.S.A., at Vernon and Kelowna; S. H. Hopkins, B.S.A., at Duncan and North and South Cowichan; and H. E. Hallwright, B.S.A., at Victoria and Saanich. Enderby joined in with Armstrong, under supervision of J. E. Britton, B.S.A., in place of Vernon, which last year was associated with Armstrong. Following is a list of the high schools where agriculture is now being taught, with the enrolment by classes in each:—

School.	Instructor.	No. in First-Year Agriculture.	No. in Second-Year Agriculture.	Total.
Armstrong	J. E. Britton	9	16	25
Chilliwack	J. C. Readey	16	13	29
Cloverdale	E. L. Small	4	5	9
Duncan	S. H. Hopkins	26	...	26
Enderby	J. E. Britton	19	...	19
Kelowna	W. J. Austin	20	...	20
Murrayville	E. L. Small	14	11	25
Vernon	W. J. Austin	24	10	34
Victoria	H. E. Hallwright	30	...	30
Total number of students		162	55	217

From the start, girls as well as boys have taken this course, and, speaking generally, have done quite as good work as the boys. It is especially desirable that all of the students who aim at securing teachers' certificates should take the course in agriculture in those high and superior schools where it is given, as it is bound to be of great value to them in the teaching of rural

science later on. Those students who complete the two-year course in agriculture in the high school and who obtain the necessary professional standing in methods in rural science when obtaining their second-class certificates from the Normal Schools will be granted their diplomas in rural science without attending the special summer courses in that subject. Thus the value of the study of agriculture in the high schools will soon be made manifest in the public schools by those teachers who take up that study in connection with their high-school course. It will be of the greatest importance to this Province, from the industrial as well as from the educational standpoint, if, as soon as circumstances will permit, such a course can be offered in every high school.

It is a matter of regret that more definite steps have not as yet been taken to give special training to capable young men in our own Province such as would fit them for positions as district supervisors and instructors in agriculture. Suitable men with the necessary academic and professional training for this work are very scarce at the present time. Other Provinces as well as British Columbia are finding the need of such specially qualified men. This is a matter which might be considered by the Provincial Government in conjunction with the Provincial University.

The course of study as adopted is giving fair satisfaction. Some slight changes have been recommended by the district instructors, and no doubt a number of beneficial changes will be made from time to time as experience may warrant. We have aimed at making the course suitable to the Province and as practical as possible. It is also more broadly educational than might appear at first sight. It is bound to link up in close relationship with the other science studies in the curriculum, and would no doubt be still better if preceded by a preliminary course in biology and general science. At the present time our instructors are doing all they can to supply this scientific approach to the various branches of agriculture as they reach them during the first year.

The modern scientific method of teaching is followed in so far as equipment and facilities generally will permit. It takes some time and money to establish a proper working laboratory class-room for the teaching of agriculture as it should be taught. Such a laboratory, however, has the great advantage of being available for the teaching of other science subjects. From the start we adopted the policy of getting the most essential parts of the equipment first, and then adding further supplies and apparatus as the need arose. This plan, whilst it has somewhat hampered the instructors in carrying on certain parts of the work, has made it easier for the School Boards, who agree to meet all of the expenses outside of the salary of the instructor, which is paid by the Department. The proper preparation, fertilizing, and in some cases irrigating of the necessary ground for the outside experimental work also requires a good deal of time and extra labour, so that the first year's expense is somewhat greater than that of succeeding years.

One cannot help feeling, however, that when the study of agriculture in secondary schools has received the attention which it deserves, and which it must certainly receive in future if we would escape national bankruptcy and a gradual extermination of the race, not *one* scantily furnished class-room with its half-acre of experimental grounds will be provided, but a well-equipped building of several rooms properly fitted up, each for its special line of instruction. Such an agricultural high school as this would be located in grounds 30 or 40 acres in extent and fully equipped with outbuildings, live stock, and everything that can help in the training of young people for a successful and contented life in the country. Where we now ask for hundreds we will then require thousands, but the prosperity of the country would presently be estimated in tens and hundreds of thousands. As yet we have made but a small beginning, but one which we are hoping may not only become valuable in itself, but that will also demonstrate the possibilities of something very much better.

EXTENSION OR CONTINUATION CLASSES.

The great scarcity of young men throughout this Province, due to the large number who have gone overseas, has made it difficult for our district supervisors to organize winter classes to the extent which we had hoped. Although these part-time classes are open to young men from fifteen years of age upwards, but few have as yet found it possible to attend. Under ordinary circumstances we believe that this would be different. In some cases the classes are being held in the evening, twice a week, with fair results. In Saanich a number of young women applied

for admission to these classes and are following the course of instruction in a most satisfactory manner. If, as seems to be inevitable, the women of our country are to take up certain lines of farming and fruit-growing, they should be granted just such an opportunity as I have referred to for gaining all possible assistance in the way of special instruction in those lines of agricultural work which they may hope to undertake.

School-grounds Improvement.

Since this work was started less than three years ago no less than sixty-five school-grounds have been planned and improved. Trees and ornamental shrubs to the number of 5,832 have been sent out from the Essondale Nursery for use in the beautifying of these grounds. In most cases the work is being advanced from year to year and is being appreciated more and more by the parents and trustees. Plans of the grounds have been carefully prepared, and each year will bring the grounds nearer to the requirements indicated in these plans. Officials of the Supervising Architect's office in the Public Works Department have been so good as to prepare these plans. The excellent service which these gentlemen have rendered is greatly appreciated. Following is a list of the schools receiving departmental grants on account of grounds improvement:—

Cities.—Courtenay Public School; Cranbrook Central School; Grand Forks Central School; Kelowna Central School; New Westminster—Duke of Connaught High School, F. W. Howay School, Lord Lister School, Richard McBride School, John Robson School, Herbert Spencer School; Port Coquitlam Central School; Revelstoke High School; Vancouver, North—Lonsdale School.

Municipalities.—Burnaby—Edmonds Street School, Gilmore Avenue School, Hamilton Road School, Howard Avenue School, Inman Avenue School, Kingsway East School, Kingsway West School, Nelson Avenue School, Riverway East School, Schou Street School, Second Street School, Sperling Avenue School; Chilliwack—Cheam School, Sardis School; Cowichan, North—Chemainus School, Somenos Station School; Delta—Boundary Bay School, Ladner High School; Esquimalt—Lampson Street School; Langley—Aldergrove School, Belmont School, Langley School, Langley West School, Langley Prairie School, Milner School, Otter School; Maple Ridge—Hammond School, Haney School, Maple Ridge School, Alexander Robinson School; Matsqui—Matsqui School; Mission—Mission High and Public School; Peachland School; Penticton—High School, Ellis School, Poplar Grove School; Point Grey—Queen Mary School; Surrey—Cloverdale School; Vancouver, South—Lord Selkirk School.

Rural and Assisted Schools.—Anarchist Mountain, Arrowhead, Beaver Creek, Bench, Box Lake, Chase, Deer Park, Nakusp, Naramata, Parksville, Renata, Rutland, Wynndel.

This movement to improve the school-grounds of the Province for purposes of education and recreation is steadily growing. A number of teachers and School Boards are doing good work on their own account. As children become more interested in the growing of things in gardens and develop a certain skill and ability along this line, they are only too willing to turn this ability to account in helping to improve the school-grounds. Such work is bound to be advantageous from every standpoint.

Special School Courses in Fruit-packing.

Owing to the shortage of labour which existed in many parts of the Province, and especially in the large fruit-growing districts, it was deemed advisable to provide special winter courses in fruit-packing for boys and girls in the high schools and advanced grades of the public schools in these districts. It was decided at a conference between officials of the Departments of Agriculture and Education that the Department of Education would bear all expenses in connection with the courses, and that the Department of Agriculture would arrange for the instructors and their itinerary. All details as to places and dates were arranged by the Provincial Horticulturist in consultation with myself.

Following is a list of the places where these special courses were conducted, and the number of students taking the course at each place: Coldstream, 16 pupils; Creston, 32 pupils; Duncan, 52 pupils; Grand Forks, 30 pupils; Haney, 27 pupils; Harrop, 9 pupils; Kelowna, 69 pupils; Keremeos, 11 pupils; Maple Ridge, 28 pupils; Nakusp, 33 pupils; Nelson, 18 pupils; Peachland, 20 pupils; Penticton, 88 pupils; Salmon Arm, 47 pupils; Summerland, 59 pupils; Vernon, 79 pupils; making a total of 618 pupils.

The universal testimony of the instructors was that the boys and girls showed very good ability and took a keen interest in the course. The records of efficiency under test as submitted to me by the instructors were very gratifying indeed. From the reports and recommendations received from various reliable sources I would strongly recommend that these courses be arranged for again this winter and early spring.

At some of the fall fairs small cash prizes were offered for the most perfectly packed box of apples, to be competed for by boys and girls who had taken the special course in 1917. Very few of the boys and girls, however, entered the competitions, but with better organization I am of the opinion that next year will see a much larger response from those who have attended the course in fruit-packing.

We realized, of course, that this training, whilst desirable from almost every standpoint, would naturally tend to reduce the attendance in the high schools during the busy months of fruit picking and packing. This proved to be true; nevertheless, it appeared that the circumstances justified this action on the part of the students. Those who attended the winter courses were a little more competent in the handling of fruit than they otherwise would have been, and their earning capacity was correspondingly increased. During September and October certain high schools in fruit districts were very poorly attended, as I myself was able to observe. It is also true that many of the boys and girls from the high schools were placed in a most difficult position. Their services were greatly needed by the fruit-growers, yet they realized that the loss of two months meant a serious handicap in their high-school year should they decide to return. Some, I am told, would not return, but would pick up other jobs in the town or neighbourhood. This is such a regrettable circumstance that I venture to suggest that for high-school students in these districts a part-time school be conducted. It could be so arranged that they would have, say, three hours' regular class-work every day, including Saturdays, and work in the orchards and packing-houses about six or seven hours. If some such arrangement could be made during the rush season in fruit districts it would be of advantage to students and fruit-growers alike. If an arrangement of this kind could be made to apply to all classes and students in those high schools, the teachers also might be in a position to lend much-needed aid to the fruit-growers of their respective districts. Many teachers did excellent work last summer and autumn in so far as their time would permit, and it is to be hoped that all teachers, both male and female, will enlist in the noble army of food-producers and food-savers in this serious crisis of labour shortage and consequent food shortage which now confronts us. What I have suggested in the case of high schools might also be made applicable to the Senior Grade of the public schools. To meet such a crisis as we are now confronted with all the available man-power of the Province, including school-children and school-teachers, should immediately be mobilized in such a manner as will best meet that crisis. It is a question whether in any case it is advisable to close the schools altogether. A part-time system running through the busy months and possibly through a part of the long summer vacation would seem to meet the situation in a better way.

I have, etc.,

J. W. GIBSON,

Director of Elementary Agricultural Education.

SUMMER SCHOOL FOR TEACHERS.

Victoria, B.C., December 31st, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

Sir,—I beg to submit herewith a report on the summer school for teachers held in Victoria from July 3rd to August 3rd, 1917.

As at previous summer schools held here, the courses were open to all teachers in the Province holding permanent certificates. Normal School graduates who received second-class certificates in June of the present year were given the opportunity of applying for admission to the summer school, but, partly owing to the fact that a very short time elapsed between the closing of the Normal Schools and the opening of the summer school, very few Normal graduates made application. If in future the summer school should open a little later, as has been suggested, we would in all probability have a larger number of Normal graduates in attendance.

Last year, on account of the great stress and financial depression that existed everywhere, it was thought advisable to omit the summer school altogether. This year it was found possible to hold the school only by limiting the attendance and reducing the expenses in every possible way. Whilst all teachers attending the school received free tuition and transportation, as in former years, no allowance was made towards the living expenses of the teachers who attended. This may have accounted in part for the reduced attendance of teachers, which totalled 245, as compared with 513 in 1914 and 690 in 1915. This falling-off in numbers, however, was also partly due to the delay in sending out the summer-school announcements, occasioned by the fact that the Legislature was convened a little later than usual, and, consequently, the consideration of the departmental estimates was somewhat delayed.

In point of organization and quality of instruction given the school was even more successful than in former years, when the very large classes rendered efficient work more difficult. The teachers who attended displayed great earnestness throughout the course. The daily class-period, although not unduly long—lasting only from 9 a.m. to 3 p.m. for regular classes, with an hour's intermission at noon—was, nevertheless, fully occupied. The amount of work covered by the various classes during the term was somewhat of a surprise to those who had the opportunity of observing it. The system adopted here of confining the summer students to single courses made it possible for them each to accomplish more and better work in the single course chosen than if two or three courses were being carried during the term.

Arrangements were made to bring all of the students together at least once a week in an evening meeting. These meetings, held on Friday evenings, were open to the public and were well attended. The programme varied somewhat from week to week. On Friday evening, July 6th, Dr. F. F. Wesbrook, President of the University of British Columbia, delivered a lecture on "Co-ordination in Education." On the evening of July 13th Rev. Ernest Thomas, assisted by Mrs. Thomas, gave a lecture-recital on Tennyson's "Idylls of the King," which was thoroughly enjoyed by all present. On July 20th Dr. J. S. Plaskett, Director of the new Astronomical Observatory, gave an illustrated lecture on "A Trip Through Space," which was greatly appreciated; and on July 27th the students in the Music class, under the direction of Miss E. M. Coney, Music Mistress of the Provincial Normal School, Vancouver, presented a mixed programme of music and elocution. Another evening was occupied with a series of short addresses and several musical selections provided by the "Life Conservation League" of Victoria.

Class excursions, which combined recreation with instruction, were held at frequent intervals during the course. One of the most delightful of these was an afternoon spent in the beautiful grounds and gardens of Mrs. R. P. Butchart at Brentwood. The members of the staff and the entire student-body were delightfully entertained by Mrs. Butchart during the afternoon and evening. A large percentage of the students also visited the new observatory on the invitation of Dr. Plaskett, who explained the working of the huge telescope recently installed. A most

enjoyable evening was spent by upwards of a hundred of the students who attended a musicale at the Victoria Conservatory of Music specially arranged for their benefit by Mrs. Macdonald Fahey.

It is, indeed, impossible in the space of this report to enumerate all of the courtesies which were extended to the summer students during the term by numerous citizens of Victoria City and District. This spirit of helpful co-operation so plainly manifested by sympathetic and public-spirited men and women of our capital city has done much already and is destined to do more in future to render the summer school more attractive to visiting teachers. The action of the Victoria School Board in once more giving to the Department the use of the High School is greatly appreciated. The excellent accommodation thus provided has always been an important factor in the successful operation of the school.

At the close of the school an exhibition of work done by the student-teachers was held in the High School. The building was thrown open to the public, and after an interesting hour had been spent in examining the exhibits provided by the various classes a formal closing took place in the large assembly-hall. Addresses were delivered by the Hon. J. D. MacLean, Minister of Education, and Dr. Alexander Robinson, Superintendent of Education, in which the highest commendation of the good work accomplished during the short period of the summer school was expressed.

Following are the courses of instruction, with the number of students in attendance in each:—

(1.) Rural Science (Elementary Agriculture, Nature-study, School-gardening, and Forestry):
- (*a.*) Preliminary or First-year Course 42
- (*b.*) Advanced or Second-year Course 28

(2.) Art:
- (*a.*) Preliminary Course 70
- (*b.*) Advanced Course 14

(3.) Manual Training:
- (*a.*) Manual Arts (Primary and Intermediate) 20
- (*b.*) Wood and Metal Work (for men only) 19

(4.) Household Economics:
- (*a.*) Preliminary Course 28
- (*b.*) Advanced Course 5

(5.) Vocal Music and Elocution 19

DETAILS OF COURSES.

(1.) RURAL SCIENCE.

PRELIMINARY OR FIRST-YEAR COURSE.

Organization and Methods in Rural Science:

(Instructor: J. W. Gibson, M.A., Director of Elementary Agricultural Education.)

A course of lectures and demonstrations dealing with such topics as the place and value of nature-study and elementary agriculture in the Public School Course; the relationship of school and home gardening to nature-study and agriculture; correlation of rural science with other school subjects; special methods in rural science; class management, equipment, reference literature, etc.

School-gardening:

(Instructor: H. B. MacLean, Provincial Normal School, Vancouver.)

Garden plans suitable for various types of school and home gardens; garden tools and equipment; planting and care of garden plots—each student will receive practical instruction in making and managing a garden; garden varieties suitable for school and home planting; garden records and diaries; garden exhibits.

Soil Studies:

(Instructor: J. C. Readey, B.S.A., District Supervisor of Agricultural Instruction, Chilliwack.)

Studies conducted in the field and laboratory dealing with the origin, formation, and classification of soils; physical analysis; water and air in the soil; effects of tillage and humus; agricultural implements and their special uses.

Field Husbandry:

(Instructors: J. C. Readey, B.S.A.; E. L. Small, B.S.A., District Supervisor of Agricultural Instruction, Cloverdale.)

Systems of cropping and rotation; most important cereals and fodder grasses; special crops in relation to soil and climate; improvement of farm seeds; purity and vitality tests; the "Seed Control Act."

Animal Husbandry and Dairying:

(Instructors: J. A. McLean, B.S.A., Professor of Animal Husbandry, University of British Columbia; T. A. F. Wiancko, Dairy Instructor, Victoria.)

The live-stock industry in its relation to agriculture with special reference to British Columbia; a study of the different types of horses, cattle, sheep, and swine, with relation to their utility; a study of the characteristics of the more important breeds (particular effort will be made to acquaint students with animal form and as much judging as possible will be practised); the keeping of milk records; milk separation and milk testing; animal health.

Horticulture:

(Instructors: F. M. Clement, B.S.A., Professor of Horticulture, University of British Columbia; J. E. Britton, B.S.A., District Supervisor of Agricultral Instruction, Armstrong.)

Fruit-growing in British Columbia; its history and development; nursery stock, planting, cultivation, and general care of the orchard and small-fruit plantation; the home vegetable-garden; the market-garden; the elements of landscape-gardening as applied to home decoration; methods of plant propagation.

Poultry-keeping:

(Instructor: H. E. Upton, Poultry Instructor, Victoria.)

Popular breeds—their origin and characteristics; breeding for eggs and for meat production; incubation and brooding; housing and general equipment; diseases of poultry and treatment.

Plant-study:

(Instructors: J. W. Eastham, B.Sc., Plant Pathologist, Vancouver; A. H. Hutchinson, M.A., Ph.D., Professor of Botany, University of British Columbia.

Characters of living things; plant structures in relation to the part taken by each in carrying on life processes; collecting, pressing, and mounting of plant specimens; elementary studies in systematic botany and the use of botanical keys; some common plant-diseases with methods of controlling them.

Bird-study:

(Instructor: W. B. Anderson, Esq., Victoria.)

Methods followed in the study of birds; museum studies in the identification of birds; nesting and life-habits of the birds of the district; the economic relationships of birds.

Entomology:

(Instructor: R. C. Treherne, B.S.A., Entomologist for the Dominion Government.)

Position of insects in the animal kingdom; elementary anatomy; functions of parts; development, growth, and metamorphosis; methods for the collecting and preservation of insects; simple classification and identification; field-study; principles of control for injurious insects of farm and garden.

ADVANCED OR SECOND-YEAR COURSE.

Group A.

Organization and Methods in Rural Science:

(Instructor: J. W. Gibson, M.A., Director of Elementary Agricultural Education.)

Methods in rural science continued; class conferences in rural-science problems; organizations for rural progress; school-improvement work; the planting and care of school-grounds.

School-gardening and Special Floriculture:

(Instructors: H. B. MacLean; J. E. Britton, B.S.A.)

Special problems in school and home gardening; experimental work; garden studies and garden management continued; garden competitions, exhibitions, and judging.

Soil-fertility:

(Instructor: P. A. Boving, B.A., Professor of Agronomy, University of British Columbia.)

The soil and plant-food; manure, lime, and fertilizers; drainage and irrigation; bacteria and inoculation; conservation of soil-fertility.

Group B.

Field Husbandry and Farm Management:

(Instructors: J. C. Readey, B.S.A.; E. L. Small, B.S.A.)

A further study of the common cereal and fodder crops; intensive or specialized farming as determined by soil, climatic conditions, markets, etc.; farm equipment—machinery, buildings, live stock, etc.—in relation to the size of the farm; farm planning; farm records and accounts.

Live Stock—Feeding, Care, and Management.

(Instructor: Professor J. A. McLean.)

A study of feeds and their constituents; the feeding, housing, care, and management of dairy cattle, horses, sheep, and swine; combating disease among farm animals.

Group C.

Horticulture and Floriculture:

(Instructor: Professor F. M. Clement.)

A continuation of the work of the first year. Special emphasis will be laid on the principles underlying various horticultural practices, cultivation, pruning, fertilization, and spraying for the control of insects and plant-diseases; landscape-gardening and floriculture as applied to school decoration and to rural and suburban homes.

Poultry-keeping:

(Instructor: J. R. Terry, Chief Poultry Instructor, Victoria.)

Feeds and feeding; demonstration in killing and plucking; incubation and brooding (continued); egg-judging; visits to poultry-ranches, poulterers, egg-laying contests; preparing fowls for exhibition (by H. D. Reid, President of British Columbia Poultry Association).

Bee-keeping:

(Instructor: F. Dundas Todd, Inspector of Apiaries, Victoria.)

Life-history of the honey-bee; the value of bees in the production of seed and fruit; the bee-keeper's equipment; swarming, hiving, feeding, and winter care of bees; bee-diseases and remedial measures.

Group D.

Plant-study:

(Instructors: J. W. Eastham; Professor Hutchinson.)

A continuation of the Preliminary Course, proceeding from a consideration of general biology to an observational study of plants in relation to environment and experimental work dealing with the growth and work of root, stem, and leaf; systematic botany continued; the nature and work of bacteria; plant-diseases and methods of controlling them.

Entomology:

(Instructors: R. C. Treherne, B.S.A.; E. H. Blackmore, Esq., Victoria.)

Study of representative insects of common families, their life-histories and habits; practical, identification of insects; artificial control—insecticides and methods of manufacture; natural control; value of parasitism, predaceous insects, etc.; field-study of insect species; practical methods of collecting and preservation.

SPECIAL LECTURES ON AGRICULTURAL TOPICS.

"The Country Life Problem," a series of five lectures by Professor L. S. Klinck, Dean of the Faculty of Agriculture, University of British Columbia.

(In the consideration of this question special attention was devoted to a study of the economic, social, and educational aspects of the subject.)

"Animal Disease and Public Health," by W. T. McDonald, B.S.A., M.S.A., Live Stock Commissioner, Victoria.

"The Growing of Bulbs and Garden Seeds," two lectures by L. Stevenson, B.S.A., M.S., Superintendent, Dominion Experimental Farm, Sidney, B.C.

"Parasitism amongst Insects," by J. D. Tothill, Dominion Department of Agriculture, Fredericton, N.B.

Certificates:

Teachers who completed satisfactorily the Preliminary or First-year Course received an interim certificate in rural science. Those who took the Advanced or Second-year Course and obtained satisfactory standing in all practical and written tests received a diploma in rural science.

(2.) ART COURSE.

(*a.*) PRELIMINARY. (*b.*) ADVANCED.

(*a.*) PRELIMINARY COURSE.

(Staff of Instructors: W. P. Weston, Art Teacher; James G. Sinclair, Art Teacher; Spencer P. Judge, Art Teacher.)

Object Drawing:

With pencil, charcoal, pen, brush; principles of construction; relation of construction to memory drawing; methods of teaching; tests; light and shade; tone studies; blackboard drawing.

Nature Drawing:

With pencil, pen, brush; construction of plant forms, leaves, flowers, and natural-history specimens; blackboard drawing.

Design:

Geometrical construction in patterns; decorative motifs; principles of design; naturalistic and conventional styles; colour; colour harmonies; the appreciation of good form; development of taste; blackboard drawing.

(*b.*) ADVANCED COURSE.

This course was open to those students who obtained a first-class certificate in the Preliminary Course of 1914 or 1915, or who could satisfy the authorities that they possessed the necessary ability to profit by the instruction. The course was of particular value to high-school teachers.

(Instructors: John Kyle, A.R.C.A., Art Master; J. Macmillan, Art Teacher.)

Drawing and Painting from Objects:

Flowering plants; natural-history specimens; study of light and shade, tone, colour, and composition; blackboard drawing.

Design:

Decorative motifs; principles of design; naturalistic and conventional styles; suitability of design to purpose; colour harmonies from nature; historic styles.

Applied Design:

Designing objects to be made in wood and metal; decoration of same by stains, gesso; metal repoussé, embroidery, applique, leather-work.

Certificate:

Practical and theoretical tests were conducted during the session and at the close a certificate was awarded showing the standing of each student who completed the course.

(3.) MANUAL TRAINING.

(*a.*) MANUAL ARTS, PRIMARY AND INTERMEDIATE. (*b.*) WOOD AND METAL WORK FOR SCHOOL-TEACHERS AND CERTIFICATED MANUAL INSTRUCTORS.

(*a.*) MANUAL ARTS, PRIMARY AND INTERMEDIATE GRADE HAND-WORK.

(Instructor: William H. Binns, Supervisor of Manual Training, Victoria.)

Pedagogics:

The child and the work; organization and equipment; lesson plans and methods of presentation; Manual of School Law on primary and intermediate grade work.

Drawing:

Sketching the various views of objects made—top, front, end, perspective view; lettering; the use of ruler, set-squares, compasses, simple draughting exercises; lessons in design as applied to the construction of models; suitability of design to purpose; discussion on good taste and form; blackboard practice.

Applied Work:

PAPER FOLDING AND CUTTING:

Process.—To illustrate arithmetical and geometrical truths.

Design.—Colour harmonies and contrasts.

Projects.—Square, oblong, triangle, etc.

MAT-WEAVING.

THIN CARDBOARD-WORK.

Process.—Use of ruler, drawing patterns, cutting out, decorative design, folding, and pasting.

Projects.—Trays, boxes, booklets for school-work, mounts, book-marks, desk-blotters.

HEAVIER CARDBOARD-WORK.

Process.—More accurate drawing; working-out of development patterns, use of ruler, compass, and set-squares; calculations.

Projects.—Book-covers, simple portfolios, envelopes and files, booklets, desk-pads, boxes, section booklets and their sewing.

CLAY OR PLASTICENE MODELLING:

Process.—Acquaintance with material; study of type forms and models; relation to drawing; correlation to school-work, such as nature-study, geography, etc.

Projects.—Fruits, vegetables flowers, and common objects; their relation to type-models.

Certificate:

Tests were conducted as the work proceeded and a certificate awarded to those students who successfully completed the course.

(*b.*) WOOD AND METAL WORK.

(Instructors: A. S. Hamilton, Manual Training Instructor; A. W. Jones, Manual Training Instructor; H. Dunnell, Manual Training Instructor and Art Teacher; S. Northrop, Supervisor of Manual Training, Vancouver.)

Manual-training instructors holding positions with temporary certificates had an opportunity at this class to qualify for certificates of a permanent character. Instructors already holding permanent certificates were permitted to attend and give their time to special subjects, such as wood-turning and metal repoussé.

Pedagogics of Manual Training:

The history, theory, and methods of educational hand-work; lectures given each day; written tests each week.

Cardboard Modelling:

A course will be carried out suitable to intermediate-grade classes, and preparatory to woodwork.

Woodwork:

DRAWING AND DESIGN:

(*a.*) Plans, elevations, and sections.
(*b.*) Translations of isometric views into orthographic plans and sections to scale, and vice versa.
(*c.*) Designing models and exercises suitable for elementary schools.

BENCH-WORK:

To design and execute in suitable material exercises or models involving the use of the tools detailed in the Manual of School Law.

Copper and Brass Repousse:

Processes.—Bending, filing, sawing, riveting, planishing, polishing, raising repoussé, etc.
Projects.—Paper-knife, blotter-corners, hat-pin, watch-fob, tray, book-ends, napkin-rings, frame, box, hinges, lamp-shade.

Mathematics:

Calculating time and cost of production; use of school-room methods in the workshop.

Written Work:

(*a.*) To answer questions on the construction and methods of using and sharpening any of the ordinary wood-working tools.
(*b.*) To understand the general conditions of the growth of timber, its preparation for market, the particular uses and sources of supply of materials used in British Columbia; to recognize specimens, tree pests, diseases, etc.

Certificate:

A first-class certificate was granted to candidates who attended the class regularly and passed first-class in the final examination in drawing, designing, bench-work, and written work. Seventy-five per cent. of the available marks in each subject were necessary to entitle the candidate to a first-class certificate, and 50 per cent. to a certificate of the second class. After the holder of a first-class certificate has satisfactorily conducted a manual-training centre for one school-year, and had his certificate endorsed by the Inspector of Manual Training, a permanent British Columbia certificate will then be awarded.

(4.) HOUSEHOLD ECONOMICS.

(*a.*) PRELIMINARY. (*b.*) ADVANCED.

(Instructors: Mrs. M. Arkley Martin, Supervisor of Domestic Science, South Vancouver; Miss A. B. Juniper, Supervisor of Domestic Science, Victoria; Miss A. Boorman, Supervisor of Sewing, Victoria.)

This course was arranged specially for teachers who work in districts where there is no special domestic-science instructor, and who desire to be able to instruct their pupils in the duties of the home-maker. The lessons in cookery, sewing, hygiene, and home-nursing were such as might be introduced in the ordinary class-room of a school.

(*a.*) PRELIMINARY COURSE (FIRST-YEAR COURSE).

Home-nursing and Hygiene:

Personal hygiene.
The invalid's room—location, ventilation, furnishing, temperature, bed-making, etc.
Treatment of common ailments.
Emergencies.

Sanitary Science:

Heating, lighting, and ventilation of a home.
Water-supply—disposal of waste.
Methods of living.
Infection and disinfection.

Cookery:

FOODS—THEORY:

Food and its effect on man; food principles; food accessories.
A study of carbohydrates; digestion and absorption.
A study of fats; the fuel value of foods.
A study of proteins, mineral matters, and acids; the preservation of foods.
Menus and balanced meals.
Food values and their cost.

PRACTICE:

Kitchen equipment.
Measurement of ingredients.
Cleaning and care of utensils.
Economical marketing.
The preparation, cooking, and serving of meals.
Beverages, milk, fruit, cereals, eggs, vegetables, cheese, soups.
Legumes, bread, leavening agents, meats, fish, pastry, and cakes.
Lunch-box for a child.
Invalid cookery.
The kitchen-garden.

Needlework:

PRACTICAL:

Hand and work drills.
Stitches—plain and sample embroidery.
Seams—hems, gathering, and putting-on of bands.
Buttons and button-holes, tapes, etc.
Patching and darning.
Set of garments draughted and cut to scale.
Set of garments made up by hand.

THEORETICAL:

Talks on sewing equipment.
Talks on household textiles.
Talks on suitable material for undergarments.
Talks on suitable material for outer and children's garments.
Comparison of ready-made and home-made garments.
Suggested courses for different grades.
Suggested courses for rural schools.
Suggested course in needlework for boys, following the lines of the "Boy Scouts."

(*b.*) ADVANCED COURSE (SECOND-YEAR COURSE).

For those students who obtained approved standing at the summer school of 1914 or 1915, or those who could satisfy the authorities that they possessed the necessary ability to profit by the instruction.

Home-nursing and Hygiene:

Personal hygiene.
Bandaging—practical instruction.
Recognition and emergency treatment of common accidents of the home, school-room, street, and playground; artificial respiration.

Summer School for Teachers held at the Victoria High School, July, 1917.

Rural Science classes in garden practice at the Victoria Summer School for Teachers, 1917.

Outline of course of instruction that might be given in public school.
Public-health system and "Public Health Act" in British Columbia.
Medical inspection in city and rural schools.

Sanitary Science:

Sites for a home; construction of a home.
Heating, lighting, and ventilation in the home.
Water supplies; plumbing; disposal of waste.
Sanitary control of foods; food adulteration.
Sanitary methods of living; infection and disinfection.

Cookery:

Study of recipes as to types and variations.
Experimental work with food materials and processes.
Applications of principles of dietetics in preparation of meals.
Table-setting and serving.

Needlework:

PRACTICAL:

Two hours' review or test covering first year's work.
Students given choice of suggested courses for the grades, one of these to be done by hand.
Sewing-machine lessons.
Taking of measurements.
Use of commercial patterns.
Draughting, cutting out, and making by machine one or two simple outer garments.
One or two specimens of household linen, either full size or to scale.

THEORETICAL:

Written test covering first year's work.
(*a.*) Household textiles, different kinds, choice, cost, durability, etc.
(*b.*) Introduction of the sewing-machine and the consequent development of the clothing industries.
(*c.*) Discussion and comparison of materials for outer garments.
(*d.*) Art in its relation to dress as to form and colour.
(*e.*) History of dress.
(*f.*) Justifiable proportion of income for dress allowance.
(*g.*) Methodical shopping and encouraging of home industries.

Millinery:

Making of buckram, net, and wire shapes.
Preparing trimming; making and trimming simple hats and bonnets.
Making of flowers and accessories.

Laundry:

White cottons and linens.
Ironing of white cottons and table-linen.
Washing of woollens and coloured cottons.
Ironing of woollens and coloured cottons.
Washing, stiffening, and finishing of laces and fine muslins.

Business Methods in House Administration:

House administration and division of labour; paid help in the house.
Home-made *versus* manufactured products.
Personal and household accounts; proportional division of income.
Economical marketing.
Banking and insurance as applied to the house.

House-furnishing:

Suggestions as to the choice of furniture.
Floor and wall coverings.
Draperies, etc.
Ethics and civics from a woman's standpoint.

Certificate:

Practical and theoretical tests were conducted as the work proceeded and at the close of the session a certificate was awarded to each student who had successfully completed the course.

(5.) VOCAL MUSIC AND ELOCUTION.

(Instructor: Miss E. M. Coney, Music Mistress, Provincial Normal School, Vancouver.)

VOCAL MUSIC.

Section I.

Voice-culture for Children:

1. The voice—its use and preservation.
2. Breathing and breathing rules and exercises.
3. Vowels and consonants—their treatment.
4. Rhythm, expression, interpretation, phrasing.
5. Singing out of tune—its cause and cure.
6. Breaking of the voice—signs and treatment.
7. Simple vocal exercises for daily practice, for the attainment of agility and evenness of tone.
8. General remarks; soft singing—loose throat, head voice.

Section II.

Sight-singing and Ear-training:

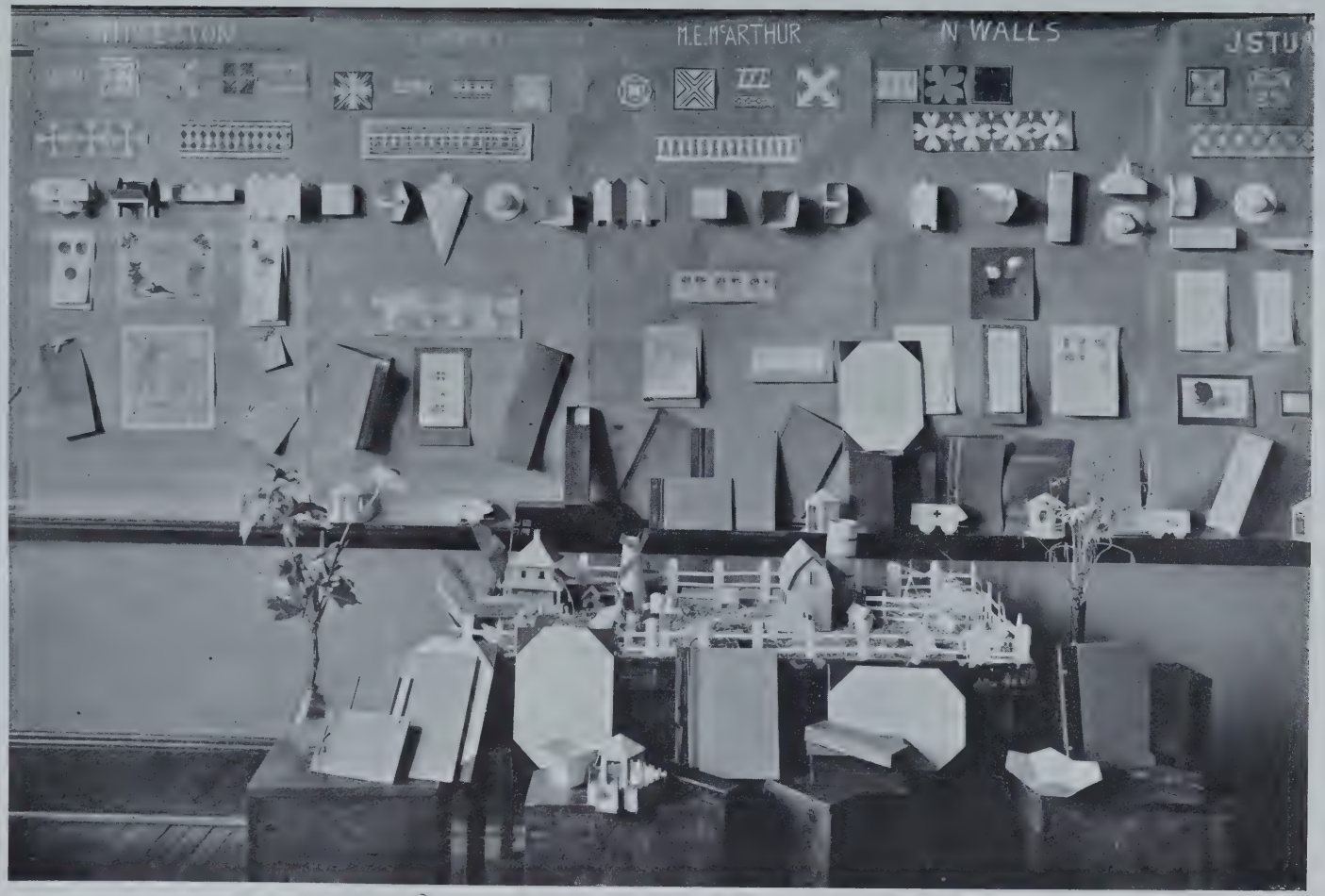
1. Knowledge and use of modulator and stave.
2. The "Doh," "Soh," and "Fah" Chords, including leaps, to syllables and lah.
3. Position of syllables on stave in Key C.
4. The various time signatures, with simple two-part, three-part, four-part, and compound six-part time.
5. Time-names, including the whole note, half-note, quarter, eighth, sixteenth, dotted quarter, and dotted eighth.
6. Formation of scale.
7. Staff Modulator Drill in all keys to syllables and alternatives to sol-faing, with key signatures.
8. Transition.
9. Chordal practice—Minor and Major Chords.
10. Ear-training in time and tune.

Section III.

Suggested Work for the Various Grades:

SENIOR AND INTERMEDIATE:

1. Voice-culture.
2. Tune—Modulator Drill.
3. Time.
4. Time and tune, including "study" songs.
5. Ear-training.
6. Theory.
7. Songs—unison and two-part.
8. Chordal training.



Scheme of work in Manual Arts, Victoria Summer School for Teachers, 1917.

Studying farm crops at first hand at the Victoria Summer School for Teachers.

A beautiful corner in the large grounds of Mrs. R. P. Butchart, Todd Inlet, where the students of the Summer School were delightfully entertained.

PRIMARY:

Rhythmic games for children.

1. Imitation exercises without music.
2. Games without music.
3. Old English games and Swedish games with song-singing.
4. Various marches and steps.

ELOCUTION.

1. The elements of elocution.
2. The voice as a musical instrument.
3. The breath.
4. Breathing and gesture exercises.
5. Nose-breathing.
6. Breath-pauses and throat-rests.
7. The breath-sounds of speech.
8. Phonation.
9. The vocal consonants.
10. The vowels.
11. Resonance.
12. Voice-production exercises.
13. Registers.
14. Flexibility.
15. Distinctness.
16. Selections for declamation.

Certificate:

At the close of the session a certificate was awarded to each student who had successfully completed the course.

Books required:

1. The School Teacher's Music Guide, by L. C. Venables.
2. Fifty Steps in Sight-singing, by Arthur Somervell.
3. Rhythmic Games and Dances for Children, by Mrs. F. Kirk.
4. Hasluck's Elements of Elocution and Gesture.

SPECIAL COURSE IN "FIRST AID TO THE INJURED" AND "HOME-NURSING."

Arrangements were made with the Canadian Branch of the St. John Ambulance Association for the giving of a special course in "First Aid to the Injured" and also one in "Home-nursing." Four large classes were formed, two in "First Aid," under Dr. M. Raynor, and two in "Home-nursing," one under Dr. W. J. Tomalin and the other under Nurse Grimmer, City School Nurse for Victoria. Three of the classes were held in the afternoons from 3 to 5, and the fourth in the evening from 7.30 to 10 o'clock. Each course called for a minimum of five two-hour periods, but in every case the instructors were able to arrange for six and in some instances seven periods. The Department met the expenses of instruction and examination, which was approximately $1 per student. Each student paid $1 to cover the cost of text-book and materials used in the course. A certificate was issued in the usual way to each student who completed the course and passed the required practical and written examinations. Following is a list of the successful candidates:—

First Aid to the Injured (Dr. Raynor).

Bell, Elizabeth M.
Bromley, Mrs. Mercy G.
Chute, Nellie V.
Drummond, Mrs. Jean S.
Finland, Edna.
Forrest, Sadie J.
Little, Helen E.
Spencer, Theodora.
Stone, Sylvia L.
Warren, Emily.
Armstrong, Francis A.
Bassett, Ivor.
Cameron, Ralph K.
Freman, Binney S.
Griffiths, Stanley J.
Harris, Henry.
Lowther, David H.
Morrison, Norman.
Moore, Samuel.
Muir, John N.
Mullin, Isador.
Summers, Gilbert S.
Sykes, William A.
Towell, Seymour.
Welch, John O.
Williams, John.

Home-nursing (Miss Grimmer).

Agar, Annie.
Anderson, Mary H.
Bell, Elizabeth M.
Bertrand, Clemence.
Bruce, E. Maude.
Clower, Gladys.
Hume, Ruby.
Hutchison, Mrs. B.
Nicholles, Clara.
Oliver, Dorothy A.
Opie, Alice M.

Home-nursing (Dr. Tomalin).

Bromley, Mrs. M. G.
Deane, Mrs. Jessie.
Doherty, Eva M.
Finland, Sadie L.
Hall, Amy V.
Johnson, Margaret.
Mercer, Ellen.
Mouat, Jessie.
McColl, Mrs. B.
MacGregor, Jean H.
McLennan, Annie.
Nowlan, Lena.
Nyman, Annie E.
Pim, Laura M.
Porter, Jessie.
Robertson, Mary.
Taylor, Mary E.
Tompkins, Ida.
Weismiller, Ethel M.
Wood, Ina V.

SCHOOL GAMES.

An attempt was made to interest the student-teachers in the practice of school games. As no regular course in physical training was offered, it was hoped that the majority of the students would avail themselves of the opportunity of learning a number of good school games, and also derive a certain amount of benefit and wholesome recreation from the practice of these games. Whilst a fair number of students did take part in these games, the majority found the time so fully occupied with the regular work of the course and the extra courses in First Aid and Home-nursing that they could not attend the practice hours for school games. It is to be hoped that a more satisfactory arrangement can be made in future to meet the needs of the students with reference to this particular part of their training.

In concluding this report, I wish to bear testimony to the splendid spirit of sympathy and co-operation which existed, not only amongst the instructors, but also amongst the student-teachers themselves. The majority of the instructors who were with us in this work in the 1917 summer school have been with us since the school was first organized, in 1914. The wide knowledge of his subject which each instructor has so clearly shown from year to year, coupled with an all-absorbing desire to make these summer courses successful, has made the management of the school a pleasure and not a mere task. I wish also to make special mention in closing of the invaluable services rendered throughout by my colleague, Mr. John Kyle, who was associated with me in the management of the school. To him and to Miss Edna Appleby, of this Department, who acted as secretary of the summer school, much credit is due for the success which attended the management of each day's work during the five weeks of the summer school.

The following are the names of the teachers who attended the summer session of 1917:—

RURAL SCIENCE COURSE.

(a.) Preliminary.

Agar, Ruth E.
Bertrand, Clemence.
Blacklock, Marion.
Bonsall, Marjorie.
Brockman, Mrs. Annie.
Bruce, E. Maude.
Cameron, Ralph K.
Cook, Dora L.
Davies, Tom L.
Debney, Dorothy F. L.
Denton, Churchill De B.
Devereaux, Gladys M.
Drader, Cecil R.
Finland, Edna E.
Freeman, Binney S.
Gray, Margaret A.
Harris, Henry.
Harris, Opie.
Heaps, Elsie F.
Herd, Isabella J.
Marriage, Frederick T.
Martin, May.
McIntosh, D. Howard.
McKenzie, Jessie M.
McKinlay, Margaret.
McManus, Glenna H.
McNeill, Chester W.
Opie, Alice M.
Paterson, Margaret B.
Richards, George E.
Scott, Margaret M.
Sisson, Richard E.
Smith, Edna M.
Smith, Hazel M.
Skelding, Cecil H.
Slater, John C.
Spencer, Theodora.
Sykes, William A.
Todd, Arthur A.
Towell, Albert S.
Wily, Mona L.
Webber, Joseph.

(b.) Advanced.

Anderson, Mary H.
Bassett, Ivor.
Bossi, Olga L.
Brett, Kathleen J.
Brundrett, Mary E.
Clarke, Theo. V.
Drummond, Mrs. Jean S.
Forsyth, Robert B.
Griffiths, Amy.
Griffiths, Stanley J.
Hutchison, Mrs. B.
Johnson, Margaret A.
Lowther, David H.
Masterton, Robert B.
Miller, Elizabeth J.
Mitchell, Morley W.
Morrison, Norman.
Murray, Paul.
Macdonald, John V.
Oliver, Dorothy A.
Porter, Jessie.
Richards, Jennie M.
Summers, Gilbert S.
Tallander, Louise J.
Tupper, James F.
Welch, John O.
Williams, John.
Wolfenden, Lena.

ART COURSE.

(a.) Preliminary.

Agar, Annie J.
Aird, Olive M.
Aldred, H. Helen.
Armstrong, Francis A.
Barton, Jessie I.
Beattie, Mrs. Anne.
Bell, Elizabeth.
Bissett, Marguerite.
Boyer, Alonzo B.
Brannick, Erroll H.
Briand, Annie.
Brundrett, Lyla I.
Cass, Eileen V.
Codd, Mrs. Sara.
Cook, Freida L.
Creeden, Elsie.
Crocker, Nellie F.
Doherty, Eva M.
Eason, Josephine B.
Forrester, Jeanie D.
Fraser, Florence J.
German, Clementina.
Girling, Richard H.
Glass, John C.
Hall, Florence E.
Hallowes, Katherine B.
Hardwick, Margaret S.
Hope, Jessie G.
Hume, Rubie M.
Irvine, Barbara E.
Irwin, Joseph.
Keatley, Sara E.
King, John.
Kittleson, Hilda.
Landells, Robert.
Lawrence, F. Kathleen.
Lettice, Edith.
Lingle, Nettie C.
Love, Mrs. Kate E.
Magee, Edna L.
Maxwell, Alexander M.
Mercer, Ellen A.
Milne, Frances R.
Moore, Francis W.
Moore, Samuel.
Morriss, May.
Muir, John N.
Mullin, Isadore M.
MacDonald, Rachel.
Macfie, Mabel T.
McIntyre, Gertrude.
MacKenzie, Margaret A.
Macleod, Belle.
Nesbitt, Dorothea.
Rowan, Bessie E.
Sargent, Beatrice H.
Sewell, Eunice A.
Sparkes, Edward.
Spragge, Phoebe.
Steeves, Greta.
Stone, Sylvia L.
Terhune, Lily M.
Thom, Elizabeth.
Tingley, A. Laura.
Traves, Myrtle L.
Warner, Mrs. Charlotte H.
Warner, Percy E.
Warren, Emily.
Williams, Myrtle E.
Wright, Gertrude C.

(b.) Advanced.

Brynjolfson, Bina H.
Calder, Thomas H.
Chute, Nellie V.
Gladstone, Margaret I.
Gulland, Emily P.
Hall, Amy V.
Hanna, Mavis V.
Huntley, Irene A.
Jenns, Ivy J.
Likeman, James.
Matheson, Vinnie J.
May, Grace J.
Stuart, Nellie M.
Wille, Annabelle E.

MANUAL TRAINING COURSE.

(a.) Manual Arts.

Bell, Ralph K.
Binney, Katherine.
Brett, Grace B.
Burns, Flora H.
Dicken, Isabel.
Dunnett, Jean E.
Monkley, Sadie B.
McArthur, Marjory E.
McKenna, Anthony J.
McLennan, Annie.
Noble, Alice L.
Nyman, Anna E.
Pim, Laura M.
Porter, Bessie B.
Preston, Margery.
Rumbely, Canterbury M.
Stewart, Ruth O.
Stiff, Louisa M.
Stuart, Jennie.
Walls, Nina.

(b.) Wood and Metal Work.

Bennett, John W.
Campbell, Archibald.
Cross, Norman Y.
Daniels, Edward G.
Green, James A.
Harris, Frederick J.
Illingworth, Charles.
Jones, Alexander W.
Marrion, Arthur H.
Michelmore, Arthur J.
Morris, Frank G.
Parker, Jacob W.
Plenderleith, William A.
Roberts, George.
Snider, William S.
Shockley, Richard H.
Smith, Alexander.
Vinall, Horace.
White, Edward M.

HOUSEHOLD ECONOMICS COURSE.

(a.) Preliminary.

Blake, Olive M.
Brash, Dorcas.
Bromley, Mrs. M. G.
Brown, Mary E.
Burnham, Lillian M.
Clower, Gladys B.
Deane, Mrs. Jessie.
Dynes, Stella E.
Ferguson, Ethel M.
Finland, Sadie L.
Forrest, Sadie J.
Fraser, Corinna C.
Ilsley, Grace B.
Little, Helen E.
Mouat, Jessie.
McColl, Mrs. Bessie.
McGregor, Jean H.
MacIntosh, Jessie M.
Newby, Evelyn B.
Nowlan, Lena M.
Robertson, Mary.
Rylett, Mary E.
Steen, Olive C.
Taylor, Mary E.
Tompkins, Ida.
Traviss, Violet.
Weismiller, Ethel M.
Wood, Ina V.

(b.) Advanced.

Fisher, Elizabeth McK.
Morrow, Maybel.
Pye, Bessie M.
Shaw, Mabel.
Spencer, Norma W.

VOCAL MUSIC AND ELOCUTION COURSE.

Beattie, Elizabeth.
Brydon, Jane D.
Buchanan, Christina.
Cathcart, Isabel.
England, Violet.
Hall, Carrie.
Keast, Ada.
King, Sibyl N.
Morrow, Mary K.
Murray, Charles R.
McKenzie, Mildred.
Nicholles, Clara L.
Robinson, Sarah A.
Service, Marion G.
Severs, Louisa.
Smith, Mabel E. L.
Watson, Violet.
White, Eva E.
Williams, Edith M.

I have, etc.,
J. W. GIBSON,
Director of Elementary Agricultural Education.

TECHNICAL EDUCATION.

REPORT OF THE ORGANIZER.

VICTORIA, B.C., October, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I beg to submit the following report on night-schools and technical education generally for the year 1916-17:—

NIGHT-SCHOOLS.

Night-schools continue to be held throughout the Province in spite of much opposition from many economical citizens and City Councillors who urge retrenchment in educational work. Yielding to these unworthy importunities, little effort has been made by many School Boards to advertise the opportunities offered and to urge the advantages which would certainly accrue from the establishment of night-schools. It is mainly in consequence of this attitude that the enrolment for 1916-17 shows a regrettable decrease when compared with that of the previous year (1915-16).

In the European countries now at war retrenchment in the outlay for education is looked upon as the last step in economy. The inhabitants are realizing as never before that they are the trustees for posterity; that they are guarding the lines of communication between the present and the future. The generation to come will not discover false play until it is too late; consequently it is the duty of the people of to-day to make sacrifices before betraying posterity. The hope of the Empire depends upon the training of the rising generation in industrial efficiency and upon instilling noble ideas of public service in the minds of those who will be the men and women of the future. It is, therefore, deplorable to see men willing to barter away the educational advantages of the boys and girls in the Province of British Columbia in order to carry out a pitiful policy of retrenchment.

Notwithstanding disadvantageous conditions during 1916-17, night-schools—the university of the workers—were conducted in the following cities:—

Vancouver	1,297	students, with	31	courses provided.
Victoria	649	„	20	„
Vancouver, South	336	„	9	„
New Westminster	161	„	6	„
Nanaimo	78	„	5	„
Nelson	67	„	3	„
Rossland	103	„	3	„
Trail	107	„	3	„

In these classes continuation-school subjects—i.e., English and arithmetic—were well taught, and the increasing number of students who came directly from the day-schools promises well for the future. The necessity of encouraging pupils who are leaving day-school to continue their studies at night-school cannot be impressed too strongly upon school principals. Study comes easier to the adolescent mind, and the night-school habit is thus more likely to be contracted.

Commercial subjects—business English, arithmetic, book-keeping, typewriting, and shorthand—were almost without exception taught in an efficient manner. The commercial course in Vancouver is worthy of special mention, and the businesslike way in which the classes were conducted is commendable. The course might, for commercial reasons, be extended to embrace the Spanish and Russian languages. A class in the latter subject was successfully conducted in Victoria. French was, as in former years, well taught both in Victoria and Vancouver, great attention being paid to pronunciation and conversation.

A three-years' course in electrical engineering was well attended in Vancouver and seems to have found favour with young men engaged in that vocation. Victoria and Nanaimo had each a one-year's course in the same subject, but it is hard to understand why greater numbers are not forthcoming to study such an important branch of science. I hope to be able to report progress in those two places next year.

Classes in the principles and practice of the gasoline-engine and electric ignition for automobiles and motor-boats were well conducted in Victoria. The subject of ignition only was studied

in Vancouver. The addition of the first-mentioned class could be made to the Vancouver course with great advantage.

Dressmaking and millinery are favourite subjects and the classes are usually well attended. In dealing with dressmaking, it would seem advisable to recognize two distinct types of students—viz., the one who wishes to acquire the skill to do the mending, sewing, and dressmaking which are so necessary in the home, and the other whose ambition is to take up dressmaking as a business. For the latter person instruction should be provided in pattern-draughting, in order to secure independence of the commercial or ready-made pattern. This instruction should be supplemented by a course of lessons in colour-harmony and costume-designing. Much might be accomplished in training dressmakers if employers and night-school authorities would co-operate. It is well known that the majority of girls who go to learn dressmaking in the work-room are taught only to sew, the more important side of the training being wholly neglected.

Enthusiasm is usually a distinguishing feature in the cookery classes. The subject is one which is entitled to every encouragement, and it is invariably well treated by the instructors. I was astonished, however, to find the Vancouver class in bread-making and confectionery discontinued. This class was taught by the Inspector of Bakeries, and surely nothing is of greater moment than that a scientific knowledge of bread-making be disseminated among the people.

Vancouver bears the palm for instruction in vocal and instrumental music. At a preparatory class students are trained in reading music and in voice-production, so that they may take part in the work of the advanced class or choral society. Recitals were successfully given during the past winter.

Drawing, painting, and design, both in Victoria and Vancouver, are taught with due regard to their commercial application and use. In Vancouver a Saturday Sketch Club was also organized, at which a study of picture-painting was seriously undertaken.

The class in clay-modelling in Vancouver does work of a high character, and it is to be trusted that this body of workers, though not numerous, will be kept together, as the future of the class is already well assured. It is regrettable that little is done to encourage the kindred art crafts of needlework, metalwork, and wood-carving. These have been dropped from the Vancouver night-school scheme entirely. There is no class for instruction in woodwork and none for the study of chemistry and physics.

Last year a small group of men was enrolled in Nanaimo to study the theory of coal-mining, the Ladysmith class failing to materialize owing to the difficulty of obtaining the services of an instructor. In this connection I may remark that we are out of touch with the young men of from sixteen to twenty years of age in the mining districts referred to. The shift system of work appears to militate against regular attendance at class, and it would seem desirable to have an instructor who is at liberty during the day. His time could be employed in a valuable way as the teacher of a kind of prevocational class for young men who have left school with a meagre education. Now that labour troubles on Vancouver Island seem settled, the present would be an opportune time to encourage such a step. The benefits which would accrue to the community would, I believe, be inestimable.

In the coal districts of Michel and Coal Creek the classes were discontinued owing to labour troubles. In Fernie, Grand Forks, Greenwood, and Phoenix the school trustees still continue to deny the people of their respective cities the additional educational advantages which in these days are so much needed. When these bodies will decide to take the lead in encouraging their youthful fellow-citizens to continue their education at night-schools remains to be seen, but I sincerely hope they will soon come under the quickening influence of the spirit of the times.

In the metalliferous districts of Rossland and Trail much evidence of interest in the work of night-schools has been shown. There are great possibilities in the two cities; men with the required knowledge as instructors have willingly come forward to act in such a capacity.

The men and women who teach in the night-schools of the Province deserve the highest commendation for the way they persist in their good work. An ever-increasing number show a sincere interest in the training of the young workers as well as in the lives of those who come searching for that knowledge, the want of which they have felt in their working experience.

MANUAL TRAINING AND DOMESTIC SCIENCE.

Manual-training and domestic-science centres continue to increase, the following being a list of places where the work was in progress:—

Twelve cities: Armstrong, Chilliwack, Cranbrook, Kelowna, Nanaimo, New Westminster, Nelson, Prince Rupert, Vancouver, North Vancouver, Vernon, and Victoria.

Twelve municipalities Burnaby, Chilliwack, Delta, Esquimalt, Maple Ridge, Mission, Oak Bay, Penticton, Point Grey, Richmond, Saanich, and South Vancouver.

In these places there were the following:—

61 manual-training centres.
46 instructors of manual training.
6,972 students from elementary schools.
836 students from high schools.
45 domestic-science centres.
33 instructors of domestic science.
4,374 students from elementary schools.
1,145 students from high schools.

The manual work taught in the manual-training centres throughout the Province is treated from a sound educational standpoint, and instructors are recognizing more and more that the educational value of a project may be increased by its usefulness. Greater care and attention might be given to the condition of the tools, and the fact that the lead-pencil is one of them should not be lost sight of. The results from the use of the latter should show skill both of hand and eye.

It is to be regretted that models good in proportion and workmanship are not always to be seen on the walls of the manual-training workshops. The aim which some of the instructors have of making a natural-history collection should be universal. The workshop should be an educational centre where the eye will find much of interest and where the boy may absorb knowledge on all sides. I would suggest that the working drawings for the three-year course of manual instruction should always be kept together in one portfolio in order that progress throughout the course may be judged and the amount of improvement noted. This is done in Vancouver and should be followed elsewhere. A retrograde step in the city just named was made when the supervisor of manual training was required to devote his time entirely to teaching. Co-ordination and success in manual work demand the appointment of some one who will have time for supervision.

The suggestion made last year of training intelligent craftsmen to qualify as educational hand-work instructors materialized in the organization of a class at the 1917 summer school held in Victoria. This class proved remarkably successful, and at a course of five weeks' training the educational point of view was emphasized to great advantage in the teaching of wood and metal work. A fear has been expressed by the men who are already qualified as instructors that the Department of Education might by this action flood the schools with a supply of half-trained artisans who would ruin the good work which has already been accomplished in the Province. In order to allay such a fear I may state that only four permanent certificates have been awarded as the result of finishing the summer-school course, and these were given to men who had been engaged in teaching and who had successfully conducted classes for the past two years. The summer-school course must be regarded as the introduction to a more advanced treatment of the subject, a course which most of the candidates will be asked to attend. No permanent certificate will be granted unless the men have scholarship and a natural aptitude for teaching. On the other hand, the professional mannerisms in the use and care of tools and the professional standards of craftmanship which these artisans bring to the manual-training workshops are distinct assets in their favour. It has been urged that a similar course might with advantage be organized for the training of domestic-science teachers, and I am firmly convinced that such an opportunity would meet with favour if conducted on the lines of the training class for manual-training instructors.

Domestic-science subjects are well taught throughout the Province, and great advancement has been made in sewing and knitting. Considerable attention has also been paid to economical cookery, as well as to the canning and preserving of fruit, vegetables, and fish. The necessity for such knowledge has been amply demonstrated by the war. Teachers adopt many different methods of attacking the lessons in domestic-science centres, but they all practise those which are more or less scientific in character and discard those of a purely empirical nature. The appointment of a teacher to give lessons in household science and sewing to the student-teachers attending Normal School in Vancouver would seem necessary in order to prepare class-room

teachers who could conduct the work of sewing without the aid of a specialist, as well as to correlate the theoretical lessons of the class-room with those practical lessons given in the domestic-science centres. This instruction is already given to great advantage in the Normal School at Victoria.

HIGH SCHOOL SCIENCE COURSE.

Before closing my report I should like to touch on a departure from the regular curriculum which has been made in King Edward High School, Vancouver. This encroachment on the province of Mr. DeLong, Inspector of High Schools, is made with his permission, and is alluded to because of its close association with the work of technical education and with the establishment of a technical school in the near future.

In the school above referred to a science course has been introduced for boys. The subjects taught embrace the following: English grammar, composition, and literature; business forms and usages; Latin; practical mathematics; drawing; mechanics and physics; shop-work in wood and metal. The aim of those who originated this course is to begin in the first year of high school the study of those subjects which will be of most service to the boy who is going to work as an artisan or craftsman, thus emphasizing the study of English, practical mathematics, mechanics, physics, drawing, and shopwork experience. Preparation for the University Matriculation Examination, however, necessitates a knowledge of two languages, English being counted as one. The second language which the boys attending the science course have the privilege of studying is Latin, but the time spent on this subject in the first and second years is considerably shorter than that usually required for boys taking the ordinary high-school course. It is expected that in the third year the students who desire to go to the University will put sufficient emphasis on the subject to pass the Matriculation Examination. Those third-year students, however, who have no intention of attending University will throw all their energy on English, science, and workshop experience. In these circumstances it might be wise to give considerably bias during the short lessons of the first two years to the study, *inter alia*, of Latin roots, prefixes, and suffixes.

Physics is well taught in this science course, and the system employed avoids plunging the students at once into a world of abstract symbols and definitions. Text-books are discarded in the first year, thus permitting the precedence of a realistic treatment of the subject. The advantage of this method is expected to be seen in the second and third years, when the students will exhibit a greater zest and increased desire for a continuance of the subject. The fundamental subjects of draughtsmanship, development of surfaces, and practical mathematics, which are so valuable in all industrial work, are well taught. Practical work in wood and metal is undertaken, and the students construct all experimental apparatus required for the study of physics and mechanics. It is intended to balance the technical course, just described, by a household-science course for girls, one which will give a distinct bias towards the science and art of home-making, and will at the same time lay the foundation of those studies required by student-teachers in the Normal School. This course will therefore include the subjects of English, arithmetic, sewing, cooking, art, music, and physical culture.

JUNIOR TECHNICAL CLASSES.

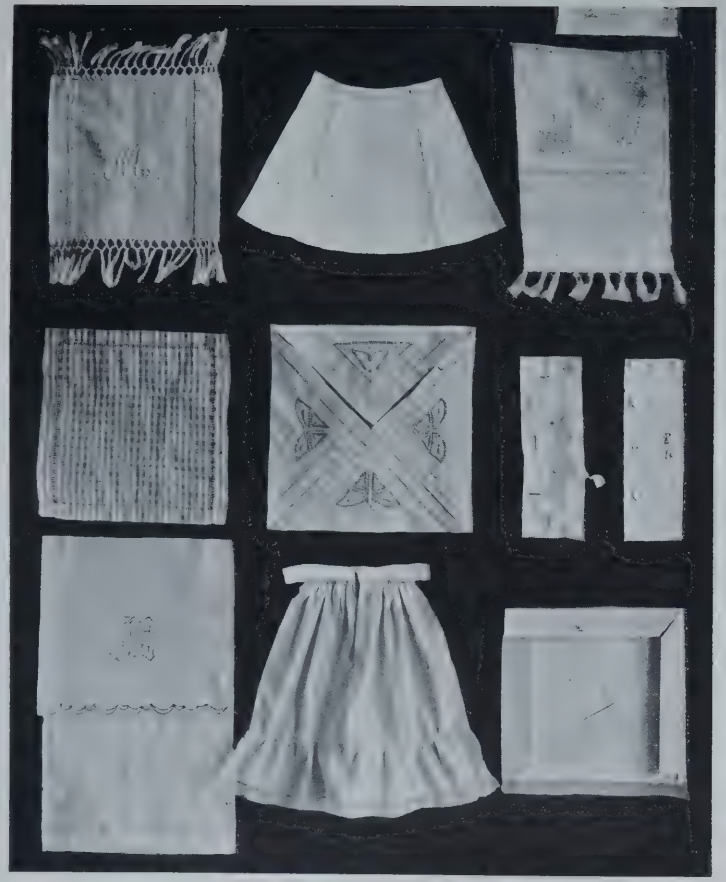
Nothing has been done to meet the demands of a group of boys and girls in the elementary schools who have reached the age of fourteen and over, and yet have not been promoted to the high-school entrance class. As it is for the good of the country that these students receive special attention, it is to be hoped that school trustees in the larger centres will take steps to arrange classes for their benefit. These might be termed "junior technical classes," the name suggesting the first step towards the senior technical school, a goal to which it would be wise to direct the pupils.

To this projected technical school the graduates from the high-school technical course, the household-science course, and the junior technical class would ultimately repair for the advanced study which would doubtless prove inspiring and helpful to them in after-life. The time is thus nearly ripe for making arrangements for the establishing of technical schools. The students will undoubtedly be forthcoming, and the conditions of the times, notwithstanding the financial stringency, make a move in the direction suggested of the utmost importance.

I have, etc.,

JOHN KYLE,

Organizer of Technical Education.



Scheme of work in sewing as carried out in the elementary schools of South Vancouver.

Scheme of work in sewing as carried out in the elementary schools of Point Grey Municipality.

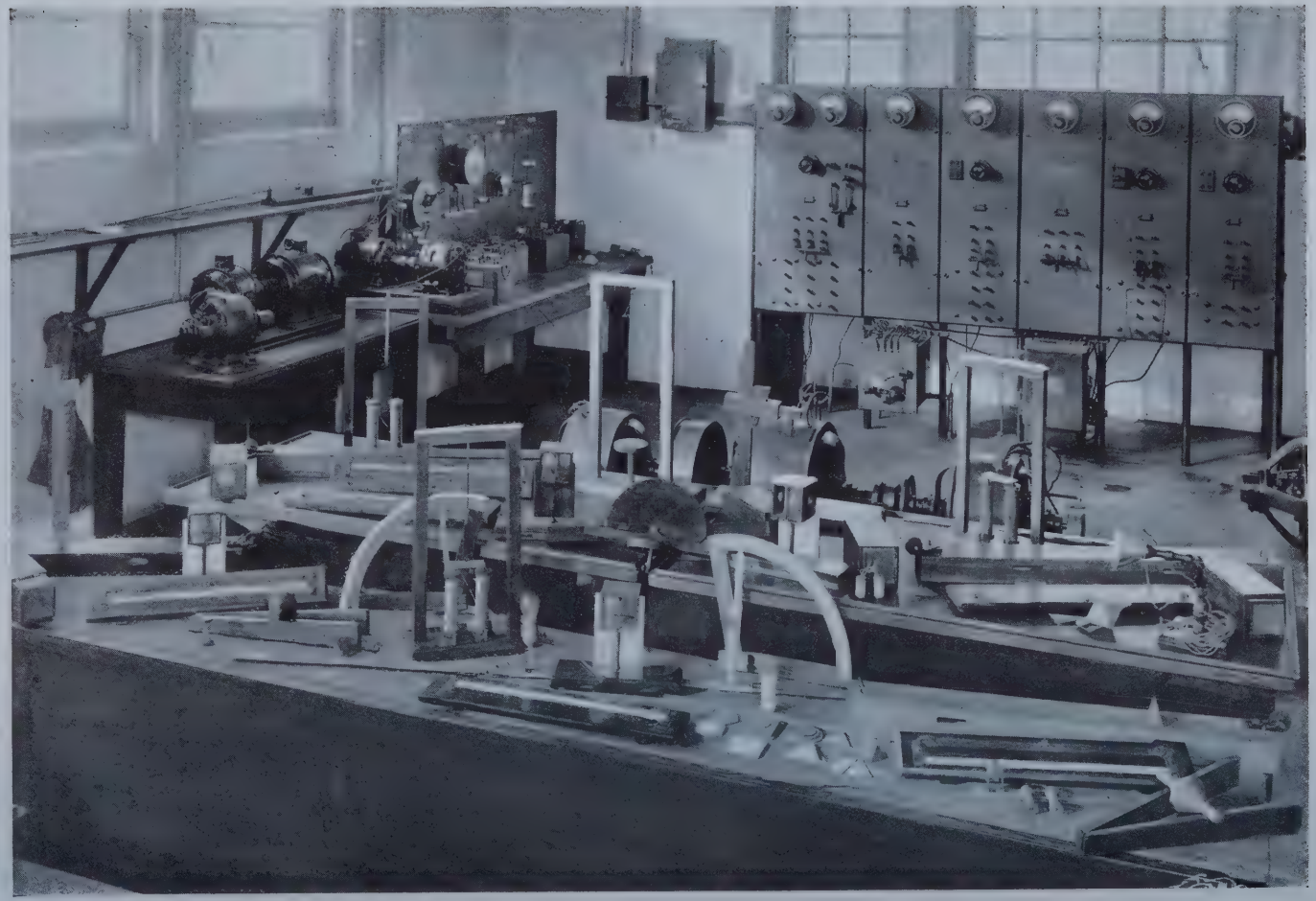
Simple manual-training equipment in use.

Simple domestic-science equipment in use.

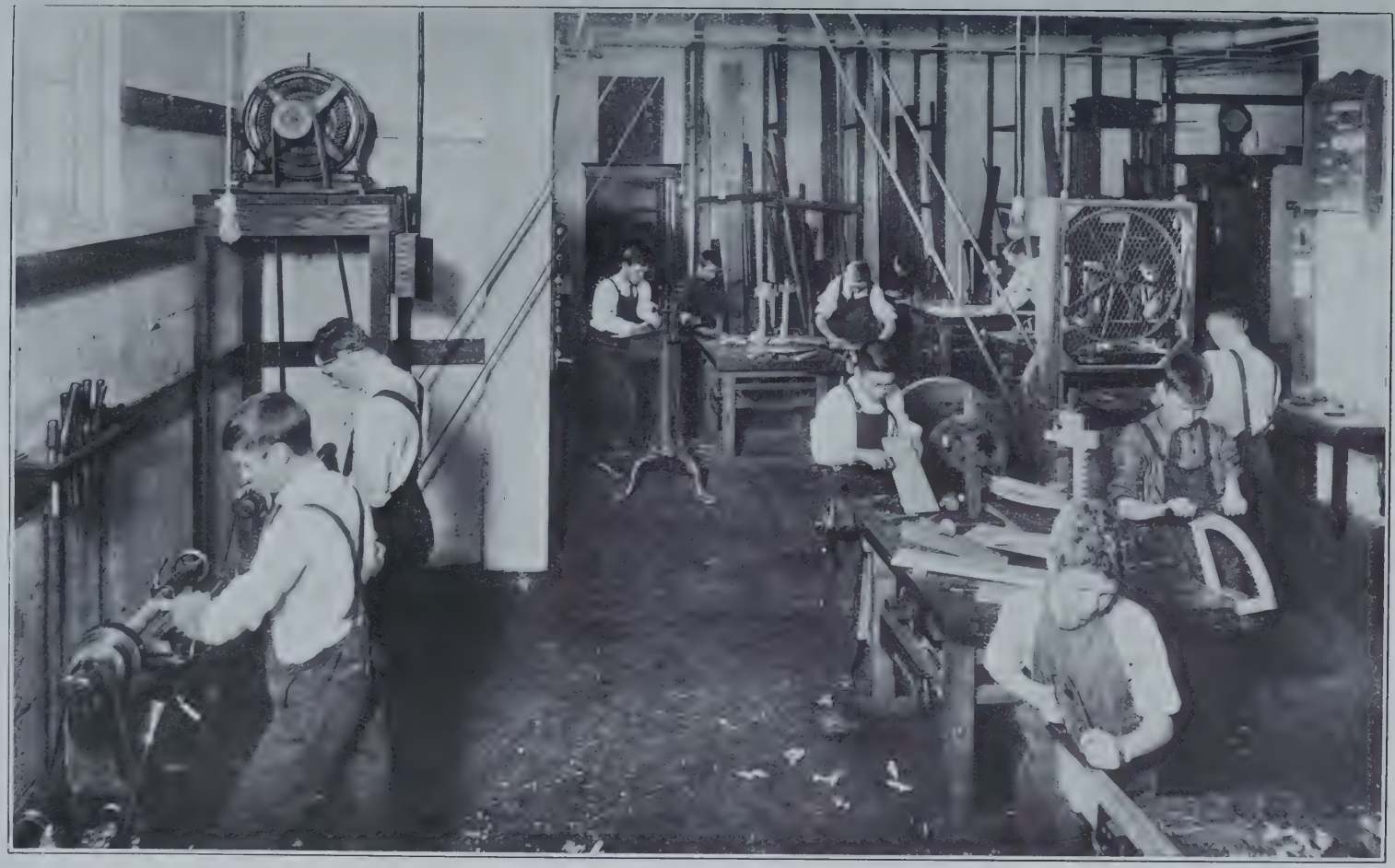
Domestic-science equipment for rural-school work. Cost, $50.

Girls of the Home Economics Course, King Edward High School, Vancouver.

Girls of the Home Economics Course, King Edward High School, Vancouver.



Equipment in foreground made and used by boys of the Science Course, King Edward High School, Vancouver.



King Edward High School. Technical class in wood-working room.

King Edward High School. Technical class in wood-working room.

King Edward High School. Technical class in metal-working room.

King Edward High School. Technical class in electrical laboratory.

Honour Roll, 9 feet 6 inches by 7 feet. Made by the boys of the High School Manual Training class and erected in the City Hall, Armstrong.

FREE TEXT-BOOK BRANCH.

ANNUAL REPORT.

EDUCATION DEPARTMENT, FREE TEXT-BOOK BRANCH,
VICTORIA, B.C., November, 1917.

Alexander Robinson, Esq.,
Superintendent of Education, Victoria, B.C.

SIR,—I beg to submit the following report on the work of the Free Text-book Branch for the school-year ending June 30th, 1917:—

RETURNS FOR 1916-17.

All the annual reports of free text-books for 1916-17, with fifteen exceptions, are now on file. Included in the latter are those of four schools which were closed during the year, those of two which were not reopened in August, 1916 (although supplied with books), and that of one which lost both records and books by fire in January, 1917. The returns on file (859 in number) were prepared in most instances with commendable care, but, on the whole, the standard of 1915-16 was not reached. It has been found that free text-book records also suffer when there has been a change of teacher in any school during the year—and many changes of this kind occurred in 1916-17. It is certainly incumbent upon teachers who resign their positions before the close of the school-year to leave the free text-book records (Stock Account and Pupils' Account) in such a condition that their successors will have no difficulty whatever in determining not only how many books have been received, but to whom they have been issued and when.

Under this head, the attention of teachers and particularly of principals is directed to the matter of library books issued to their schools, such as: Syllabus of Physical Exercises; Canadian Civics; Teaching Writing, Books 1-4; World Relations and the Continents; Children's Story of the War; Supplementary Readers (free text-books); Essentials of Health (retained for the library in common and graded schools); The Rhodes Scholarships; Flora of Southern British Columbia; and Teacher's Handbook to Beginner's Reader. A *complete return* of all such books issued to any school is required to be made in annual report. In many instances this was not done, no account having been taken of the library books in the hands of assistant teachers. At the close of the school-year all books of this kind issued at any time by the principal to his assistants should be brought back by them to the library, so that a *complete return* of *library books* may be made in annual report.

In addition to the number of books given to pupils during the year and duly recorded in Pupils' Account of Teacher's Record as per "giving" plan in operation since 1912, the annual returns state the number sold to the pupils at night-schools or to those pupils who are required to replace lost or destroyed texts, the number missing from the general stock or destroyed for any valid reason, as well as how many of the books in reserve stock are in good condition and fit to be issued this year. The following summaries of (1) "Books Given," (2) "Books Sold to Pupils," (3) "Books Missing or Destroyed," and (4) "Reserve Stock in Good Condition" have been compiled from the 859 annual reports for 1916-17 now on file:—

(1.) *Books Given.*—17,309 Primer (B.C. Beginner's Reader as First Primer and B.C. Phonic Primer as Second Primer); 38,511 Reader (B.C. First Reader, B.C. Second Reader, B.C. Third Reader, N.C. Third Reader, N.C. Fourth Reader, N.C. Fifth Reader); 19,284 Arithmetic (First, Second, Third); 9,197 Spelling Book; 44 Essentials of Health; 5,924 How to be Healthy; 5,793 Elementary Agriculture and Nature Study; 1,896 Latin Lessons; 8,165 First Steps in English; 5,979 History of Canada; 5,923 Public School Grammar; 148 Canadian Civics; 361 World Relations and the Continents; 78 Heart of Oak Books, Book One; 218 Art-Literature, a Primer; 199 Art-Literature, Book One; 234 Art-Literature, Book Two; 209 Progressive Road to Reading, Book 3A; 357 Teacher's Handbook to Beginner's Reader; 77 Teaching Writing, Books 1-4; 76 Syllabus of Physical Exercises.

NOTE.—Canadian Civics, World Relations, Supplementary Readers (Heart of Oak Books, etc.), Handbook to Beginner's Reader, Teaching Writing, and Syllabus of Physical Exercises were given to Normal School students.

(2.) *Books Sold to Pupils.*—17 B.C. Beginner's Reader; 12 B.C. Phonic Primer; 8 B.C. First Reader; 32 B.C. Second Reader; 34 B.C. Third Reader; 4 B.C. Fourth Reader; 30 N.C. Third Reader; 30 N.C. Fourth Reader; 3 First Arithmetic; 9 Second Arithmetic; 21 Third Arithmetic; 14 Universal Spelling Book; 1 Essentials of Health; 3 Latin Lessons; 21 Public School Grammar; 19 Drawing Book; 12 Writing Book.

NOTE.—The sums received on account of sale of these books are partly included in first amount mentioned later on in this report under the head of "Supplies Issued"—viz., $1,271.72. All sums from this source on account of 1916-17 received after July 1st, 1917, will appear in report for current school-year.

(3.) *Books Destroyed.*—41 B.C. Beginner's Reader; 646 B.C. Phonic Primer; 32 B.C. First Reader; 17 B.C. Second Reader; 9 B.C. Third Reader; 15 B.C. Fourth Reader; 36 N.C. Third Reader; 18 N.C. Fourth Reader; 8 Fifth Reader; 18 First Arithmetic; 25 Second Arithmetic; 45 Third Arithmetic; 21 Universal Spelling Book; 43 Essentials of Health; 13 How to be Healthy; 10 Elementary Agriculture and Nature Study; 1 Latin Lessons; 16 First Steps in English; 20 Canadian History; 16 Public School Grammar; 6 Canadian Civics; 21 World Relations and the Continents; 3 Physical Exercises; 1 Rhodes Scholarships; 2 Flora of Southern British Columbia.

NOTE.—No. 3 is necessarily incomplete, as during the year three large school-houses accommodating four schools were burned, with the loss of both records and books. Partial returns only were supplied by three of these schools, while the fourth made no report.

(4.) *Reserve Stock in Good Condition.*—6,284 Primer (B.C. Beginner's Reader and B.C. Phonic Primer); 7,449 Reader (B.C. First Reader, B.C. Second Reader, B.C. Third Reader, N.C. Third Reader, N.C. Fourth Reader, and N.C. Fifth Reader); 6,096 Arithmetic (First, Second, Third); 1,751 Universal Spelling Book; 1,687 How to be Healthy; 1,823 Elementary Agriculture and Nature Study; 524 Latin Lessons; 1,712 First Steps in English; 1,545 Canadian History; 1,765 Public School Grammar.

The reserve stock of bound books for the use of pupils at the various public schools of the Province on June 30th, 1917, summarized under (4) has already been utilized in supplying these schools for the present term (1917-18). The printed form of requisition for free text-books which is required to be used on all occasions (for reasons set forth in Circular of Instructions for preparing free text-book orders) contains a column for the respective numbers of all books in reserve as well as for the respective numbers ordered. There is a third column in requisition form for the respective number of promotions to the various classes—an important return which is only too liable to be overlooked for some unaccountable reason by the makers of requisitions. All the information called for by the printed form of requisition is required to be given. Notwithstanding the full instructions supplied, it was necessary to return for completion or explanation some 163 of the 2,018 public-school requisitions presented during 1916-17. Although this number represents but a little over 8 per cent. of the total number of public-school requisitions dealt with during 1916-17, yet it is not as good a record as that made in 1915-16. Much annoyance as well as unnecessary delay can always be avoided by a little care on the part of the framers of requisitions for free text-books.

SUPPLIES ISSUED.

The number of public schools (common, graded, superior, high, etc.) furnished with supplies of some kind during 1916-17 was 864, or 29 more than in 1915-16. The list is as follows: 2 Provincial Normal Schools (Vancouver and Victoria), Model School (attached to Provincial Normal School, Victoria), Boys' Provincial Industrial School, Girls' Provincial Industrial School, 513 rural schools, 192 rural municipality schools, 95 city schools, 41 high schools, 15 superior schools, and 3 night-schools. Requisitions to the number of 2,018 were required to be filled in order to meet the needs of these schools. This called for the shipment to all parts of the Province of 1,090 cases and 1,520 parcels, the total weight of which was 181,397 lb. During the year's transactions, but one package of books was lost in transit. Duly signed receipts for all these shipments (2,017) are now on file at the Free Text-book Branch. Before this number (2,017) came to hand duly signed, 358 requests for the return of receipts had been addressed to the Secretaries of School Boards, 122 copies of receipts supplied, and 22 receipts returned to Secretaries for signature. Reference was made in last report to like experiences for 1915-16 and preceding years. The year under review has shown but little change in the matter of business promptitude on the part of school officials.

In addition to the 2,018 requisitions which were filled in order to meet the needs of the public schools in 1916-17, the Free Text-book Branch honoured 341 requisitions for departmental purposes and for those who required to purchase school supplies. These orders added 34 cases and 351 parcels (weighing in all some 4,219 lb.) to the list of shipments for the year. The sum of $1,271.72 was received under this head and from month to month paid into the Provincial Treasury. It must be added that the amount just stated also includes in part sums received for "Books Sold to Pupils" during 1916-17.

The total number of free text-books, etc., issued during 1916-17 to the public schools of the Province was as follows: 10,773 B.C. Beginner's Reader; 451 Teacher's Handbook to Beginner's Reader; 5,652 B.C. Phonic Primer; 9,179 B.C. First Reader; 10,704 B.C. Second Reader; 12 N.C. Second Reader; 11,725 B.C. Third Reader; 74 N.C. Third Reader; 7,242 B.C. Fourth Reader; 88 N.C. Fourth Reader; 2,436 N.C. Fifth Reader; 7,785 First Arithmetic; 7,351 Second Arithmetic; 4,674 Third Arithmetic; 14,511 New Method Writing Pad No. 1; 8,458 New Method Writing Pad No. 2; 70,724 Writing Book; 53,322 Drawing Book; 2,120 Supplementary Reader (Heart of Oak Books, Book One; Art-Literature Reader, a Primer; Art-Literature Reader, Book One; Art-Literature Reader, Book Two; Progressive Road to Reading, Book 3A); 9,071 Universal Spelling Book; 115 Essentials of Health; 6,045 How to be Healthy; 5,924 Elementary Agriculture and Nature Study; 2,201 Latin Lessons; 8,202 First Steps in English; 145 Canadian Civics; 120 Syllabus of Physical Exercises; 418 World Relations and the Continents; 6,038 History of Canada; 116 Teaching Writing, Books 1-4; 6,101 Public School Grammar; 7 Girls' Home Manual; 1 Rhodes Scholarships; 58 Flora of Southern British Columbia; 261,030 sheets Drawing Paper; 135 Union Jack; 53 Children's Story of the War, Nos. 1-6; 52 Children's Story of the War, Nos. 7-9; 51 Children's Story of the War, Nos. 10-12; 1,433 Children's Story of the War, Nos. 13-15; 1,548 Children's Story of the War, Nos. 16-18; 1,333 Children's Story of the War, Nos. 19-21; 1,334 Children's Story of the War, Nos. 22-24; 1,988 "Scrap of Paper"; 33 Globe; 36 Map of British Isles; 48 Map of Dominion of Canada; 38 Map of World; 37 Map of North America; 34 Map of British Columbia.

At the prevailing retail prices the books and other supplies issued by the Free Text-book Branch to the 864 common and other schools already mentioned would have cost the large sum of $77,053.58.

Expenditure.

The total expenditure of the Free Text-book Branch for 1916-17 was made up as follows:—

Text-books, etc.	$37,341 59
Freight and drayage	2,721 91
Distribution (freight, boxes, cartage, etc.)	2,449 00
Salaries of staff	5,040 00
Temporary assistance	558 75
	$48,111 25

As already stated, the Free Text-book Branch distributed during the past school-year text-books and other supplies which would have cost parents and School Boards $77,053.58. To purchase and distribute these among the various schools of the Province through the Free Text-book Branch required an expenditure of $57,403.43, the items of which are as follows:—

Text-books, etc. (laid-down cost)	$49,356 18
Distribution (freight, boxes, etc.)	2,449 00
Salaries of staff	5,040 00
Temporary assistance	558 25
	$57,403 43

The profit on the year's transactions is, therefore, $19,650.15.

Free Text-books in Use.

The practice of addressing a printed inquiry to teachers about the free text-book system as applied in their schools was continued in 1916-17. The list of questions was the same as that adopted for 1915-16.

In due time, practically all the replies (some 850) came to hand and proved in the majority of instances to be quite satisfactory. It was necessary, however, in the case of 119 replies (or

14 per cent. of the total number), again to communicate with the makers. As in former years, important questions had been left unanswered; records were not available, or were incorrect, or had been neglected by former teachers; incorrect views were held as to the operation of the "giving" plan, which provides free of charge for each pupil but one copy of the same kind of bound book; and free texts prescribed for Senior Grade only had been issued to Intermediate Grade pupils. Of the last-named error, 22 cases were reported in 1915-16, but 11 only for the year under consideration. All important errors revealed by the various replies were promptly reported, as in former years, to the several School Inspectors concerned.

ACCOMMODATION FOR FREE TEXT-BOOKS.

In each annual report of free text-books a description is required to be given of the book-case or book-cases provided by the School Board (as per agreement with the Education Department) for the accommodation of all free text-books and school supplies furnished by that Department. The circular forwarded with annual report blanks states that by a book-case is meant a suitable receptacle for books which can be locked, and that simple shelves for books should not be described as a book-case. Many of the annual reports for 1916-17 show that School Boards have not yet, according to the definition of book-case given above, fulfilled agreement entered into when they accepted the free text-book system. The Education Department, therefore, directed the Free Text-book Branch in October of the current school-year to request the Inspectors of Schools to make during their tours of inspection a careful examination of the free text-book accommodation, and in case it was not satisfactory in any instance to notify the offending School Board accordingly, and to state that unless agreement already entered into is carried out further supplies of free text-books will be withheld until such time as suitable book-case is provided.

NIGHT-SCHOOLS.

Of the night-schools in operation during the past school-year, 3 were supplied with books of some kind by the Free Text-book Branch.

Although the "giving" plan of dealing with free text-books has been adopted in the day-schools, yet the Education Department found it advisable to continue the "lending" plan in the case of night-schools. The books issued to pupils may, however, be purchased by them at the prices stated in official price-list; otherwise they are not allowed to be taken away from the class-room. Teachers, in order to guard against the loss of free text-books loaned to night-school pupils, have required a deposit at the opening of the term equal to the value of the books supplied. At the close of the term this deposit is returned to the pupil on receipt of all the books issued to him.

It has been found necessary again to direct the attention of night-school principals and teachers to the preceding paragraph, which appeared in the report of 1914-15 as well as in that of 1915-16.

FREE TEXT-BOOKS FOR RETURNED SOLDIERS.

During 1916-17 free text-books were issued by direction of the Education Department for the use of classes conducted at the following institutions for the retraining of returned soldiers: Esquimalt and Resthaven Convalescent Homes, and Sunnyside and Tranquille Sanatoria. The requisitions under which free text-books were issued for this purpose are included in the list of those honoured for departmental purposes, etc., as referred to under "Supplies Issued."

NEW PRICE-LIST.

The attention of all concerned is directed to the new price-list (revised June 1st, 1917). At the prices given therein teachers are authorized as before to supply from the reserve stock (if any) second copies of free text-books to pupils who may require to replace lost or destroyed texts. It must be noted, however, that these prices do not include postage or express charges in case purchases are made directly from the Free Text-book Branch. In some instances the prices of books have been slightly increased, but this has been done only when the publishers' prices have also been advanced. Copies of revised price-lists were on November 8th, 1917, mailed to all teachers and principals throughout the Province.

How and when to order Monthly Report Forms.

Among the activities of the Free Text-book Branch is that of supplying teachers with report forms, both monthly and annual. The latter are issued at stated intervals, but the former chiefly on application. Now monthly report forms are of two kinds—viz., monthly reports of attendance and monthly reports to parents. Of the latter again there are two kinds, those for the summer term (August to December) and those for the winter term (January to June). It is somewhat embarrassing, then, to be confronted from time to time with requests for "some monthly report forms." The applicants must either be requested to state their needs more definitely or a supply of each kind must be issued. As a rule the Free Text-book Branch, though at some inconvenience, has chosen the former course. It is hoped that by thus pointing out the need of a definite order for monthly report forms those concerned will be governed accordingly. Further, the increasing scarcity of paper justifies the request that only a term's supply of monthly reports to parents be ordered by teachers at one time, and then according to the enrolment of the school; that is, so many report cards and not so many pads. In order to effect an additional economy, requests for monthly report forms might well be submitted with or included in free text-book requisitions.

I have, etc.,
DAVID WILSON,
Officer in Charge.

THE STRATHCONA TRUST.

Report of the Secretary, Local Committee, Strathcona Trust, for the Province of British Columbia, for the School-year 1916-17.

VICTORIA, B.C., November 7th, 1917.

INSTRUCTION OF TEACHERS IN PHYSICAL TRAINING, 1916-17.

During the past year 247 physical-training certificates, Grade B (Strathcona Trust Syllabus), were granted to prospective teachers in attendance at the Provincial Normal Schools at Vancouver and Victoria. Since 1910 (the year in which British Columbia accepted the conditions of the Strathcona Trust, and thus pledged itself to include in the regular curriculum of the schools under its control instruction in physical training for all children of both sexes in attendance) about 2,405 teachers and prospective teachers have qualified as physical-training instructors.

PHYSICAL TRAINING, 1916-17.

The list of Strathcona Trust prizes for excellence in physical training for the school-year 1916-17 is as follows:—

High Schools.

(J. B. DeLong, B.A., Inspector.)

1st Prize—H. P. Hope, B.A., 1st Division, Oak Bay High School.
2nd Prize—Miss I. Tompkins, B.A., 2nd Division, Armstrong High School.
3rd Prize—Miss B. Macdonald, B.A., 3rd Division, Nanaimo High School.

1st prize, $24; 2nd prize, $21; 3rd prize, $18; amount expended under this head for 1916-17, $63.

Common and Graded Schools.

Inspectorate No. 1 (W. H. M. May, Inspector)—
1st Prize—Miss N. McKillican, 2nd Division, Victoria Boys' School.
2nd Prize—Miss G. N. Hewlings, B.A., Tillicum Road School.
3rd Prize—Miss S. A. Robinson, 3rd Division, Victoria Girls' School.

Inspectorate No. 2 (G. H. Deane, Acting-Inspector)—
1st Prize—Miss A. W. Johnson, 8th Division, Esquimalt Central School.
2nd Prize—Miss J. E. Robertson, 4th Division, Cumberland Central School.
3rd Prize—Miss M. V. Colbert, Somenos Station School.

Inspectorate No. 3, Division 1 (L. J. Bruce, Inspector)—
1st Prize—Miss E. L. Roberts, 5th Division, Model School, Vancouver.
2nd Prize—Miss A. Spencer, 3rd Division, Model School, Vancouver.
3rd Prize—Miss A. M. Stiven, 4th Division, Lord Tennyson School, Vancouver.

Inspectorate No. 3, Division 2 (J. D. Gillis, Inspector)—
1st Prize—Miss E. C. Matheson, 5th Division, Strathcona School, Vancouver.
2nd Prize—Miss F. Mulloy, 2nd Division, Eburne School, Point Grey.
3rd Prize—Mrs. J. M. H. Harding, 4th Division, Lord Roberts School, Vancouver.

Inspectorate No. 3, Division 3 (J. T. Pollock, Inspector)—
1st Prize—Miss A. R. Rines, 4th Division, Lord Nelson School, Vancouver.
2nd Prize—Miss M. A. Gray, 1st Division, Kingsway East School, Burnaby.
3rd Prize—Mrs. S. Bermingham, B.A., 4th Division, Laura Secord School, Vancouver.

Inspectorate No. 4 (V. L. Denton, B.A., Inspector)—
1st Prize—A. E. C. Martin, B.Sc., 1st Division, Carleton School, South Vancouver.
2nd Prize—Miss L. B. Clarke, 4th Division, Tecumseh School, South Vancouver.
3rd Prize—Miss C. J. Holden, 5th Division, Richard McBride School, South Vancouver.

Inspectorate No. 5 (L. J. Bruce, Acting-Inspector)—
1st Prize—Miss M. N. S. Johnston, 2nd Division, Port Moody Central School.
2nd Prize—Miss E. M. McAdam, 7th Division, Queen Mary School, North Vancouver.
3rd Prize—Miss F. A. Wilkinson, 4th Division, Queen Mary School, North Vancouver.
Inspectorate No. 6 (G. H. Gower, M.A., Inspector)—
1st Prize—W. T. Fennell, 1st Division, Herbert Spencer School, New Westminster.
2nd Prize—W. H. Gray, 2nd Division, John Robson School, New Westminster.
3rd Prize—Miss J. F. Rowan, 1st Division, Lord Kelvin School, New Westminster.
Inspectorate No. 7 (A. E. Miller, Inspector)—
1st Prize—Miss H. McEwen, 5th Division, Grand Forks Central School.
2nd Prize—R. C. Warden, 1st Division, Nakusp School.
3rd Prize—A. Cullen, Deer Park School.
Inspectorate No. 8 (John Martin, Inspector)—
1st Prize—W. E. Graham, 4th Division, Kamloops Central School.
2nd Prize—Miss F. E. Mercer, 2nd Division, Hope School.
3rd Prize—Miss C. Hayes, 2nd Division, Notch Hill School.
Inspectorate No. 9 (A. Anstey, B.A., Inspector)—
1st Prize—J. Gordon, M.A., 1st Division, Kelowna Central School.
2nd Prize—Miss I. R. Hartinger, 3rd Division, Penticton Central School.
3rd Prize—Miss D. Magowen, Mabel Lake School.
Inspectorate No. 10 (A. J. Dove, M.A., Inspector)—
1st Prize—Miss P. Maxwell, 8th Division, Fernie Central School.
2nd Prize—Miss B. M. Pye, 6th Division, Cranbrook Central School.
3rd Prize—Miss P. G. Whitebread, Balfour School.
Inspectorate No. 11 (A. R. Lord, B.A., Inspector)—
1st Prize—Miss B. Brynjolfson, 2nd Division, Prince George School.
2nd Prize—A. A. Todd, Dunster School.
3rd Prize—Miss M. B. Wade, 2nd Division, Fort George School.

1st prize, $12; 2nd prize, $9; 3rd prize, $7; amount expended under this head for 1916-17, $361. As the Tillicum Road School in Inspectorate No. 1 was discontinued on June 30th, 1917, one-third of 2nd prize awarded to it reverted to the general fund of the Local Committee.

Physical Training, 1917-18.

The terms of the competition for physical-training prizes, 1917-18, have already been announced by circular to all the public-school teachers of the Province. They are similar to the terms for 1916-17. For competition among the high and superior schools the sum of $54 has been set aside, while the sum of $360 (or $30 for each inspectorial district) has been made available for prizes in the common and graded schools. As before, the teacher to whom an award is made shall be entitled to two-thirds of the prize, the other third to be expended for a picture or some piece of apparatus (suitably inscribed) for the room in which it was won. Only those teachers who are the holders of physical-training certificates granted under the Strathcona Trust are eligible to compete.

Military Drill, 1916-17.

At the close of the year 1916-17, fifty-one of fifty-six active cadet corps connected with the public schools presented themselves for inspection; the remaining five corps were not inspected owing to the lack of instructors. The total number of cadets present at the annual inspection, 1916-17, was 2,479 (or 229 more than in 1915-16 and 479 more than in 1914-15). The comparative rank then awarded by the Inspecting Officer is as follows:—

Corps.	Marks.
Esquimalt, No. 349	95
Macdonald (Vancouver), 101st Battalion	95
Lord Nelson (Vancouver), 101st Battalion	94
Henry Hudson (Vancouver), 101st Battalion	92
Sir James Douglas (Victoria), No. 632	92
Lord Tennyson (Vancouver), 101st Battalion	90
General Gordon (Vancouver), 101st Battalion	89

Corps.	Marks.
Kaslo, No. 360	88
Duke of Connaught (New Westminster High School), No. 530	88
Cecil Rhodes (Vancouver), 101st Battalion	88
Kitsilano (Vancouver), 101st Battalion	85
George Jay (Victoria), No. 609	83
Simon Fraser (Vancouver), 101st Battalion	82
Franklin (Vancouver), 101st Battalion	82
Britannia High School (Vancouver), 101st Battalion	81
Victoria High School, No. 112	81
Cowichan Valley, No. 429	81
Alexandra (Vancouver), 101st Battalion	81
Model School (Vancouver), 101st Battalion	80
Charles Dickens (Vancouver), 101st Battalion	80
Grandview (Vancouver), 101st Battalion	77
Fairview (Vancouver), 101st Battalion	75
King George High School (Vancouver), 101st Battalion	73
Laura Secord (Vancouver), 101st Battalion	72
Lord Roberts (Vancouver), 101st Battalion	60
Dawson (Vancouver), "B" Company, 101st Battalion	58
Hastings (Vancouver), 101st Battalion	58
Dawson (Vancouver), "C" Company, 101st Battalion	57
Strathcona (Vancouver), 101st Battalion	55
Van Horne (South Vancouver), No. 531	54
Victoria West, No. 608	54
Oak Bay, No. 489	54
Victoria Boys' School, No. 388	53
Fernie, No. 692	52
Prince Rupert, No. 432	52
South Park (Victoria), No. 587	52
North Vancouver, No. 125	52
Nelson, No. 695	50
Nanaimo, No. 372	50
Wake-Siah (Harewood School), No. 693	50
Tolmie (Saanich), No. 569	50
Grand Forks, No. 381	50
Oaklands (Victoria), No. 650	50
North Ward (Victoria), No. 643	50
Tecumseh (South Vancouver), No. 268	50
Carleton (South Vancouver), No. 438	50
General Brock (South Vancouver), No. 513	50
General Wolfe (South Vancouver), No. 514	50
Richard McBride (South Vancouver), No. 604	50
Lord Selkirk (South Vancouver), No. 611	50
MacKenzie (South Vancouver), No. 612	50

Twenty prizes for military drill were provided in accordance with schedule adopted at last meeting of the Local Committee held on 9th October, 1917, one-half of each prize to be paid to the corps, and one-half to the instructor, provided he is a public-school teacher qualified as a cadet instructor. When an instructor is not a public-school teacher, one-half of prize reverts to the general fund of the Local Committee. The expenditure under this head amounted to $262.50, and was made according to the following schedule:—

1st prize	$22	7th prize	$16
2nd „	20	8th „	15
3rd „	20	9th „	15
4th „	18	10th „	14
5th „	18	11th „	14
6th „	16	12th „	13

13th prize	$13	17th prize	$11
14th "	12	18th "	10
15th "	12	19th "	10
16th "	11	20th "	10

Rifle Shooting, 1916-17.

The 1916-17 grant for rifle shooting ($120) was divided equally among the thirty-two qualified cadet corps whose instructors furnished returns before the meeting of the Local Committee on the 9th October, 1917—viz., $3.75 to each; this amount to form cash prizes for the three best shots in each corps: 1st prize, $1.50; 2nd, $1.25; 3rd, $1. The following qualified cadet corps accordingly received grants of $3.75 each for rifle shooting, 1916-17: B.C. Horse (Vernon), No. 368; Cowichan Valley, No. 429; Grand Forks, No. 381; Kaslo, No. 360; Oak Bay, No. 489; Prince Rupert, No. 432; Vancouver, 23 corps attached to 101st Battalion (Alexandra, Britannia High School, King Edward High School, King George High School, Cecil Rhodes, Charles Dickens, Dawson "B" Company, Dawson "C" Company, Fairview, Franklin, General Gordon, Grandview, Hastings, Henry Hudson, Kitsilano, Laura Secord, Model, Macdonald, Lord Nelson, Lord Roberts, Simon Fraser, Strathcona, Lord Tennyson); North Vancouver, No. 125; Van Horne (South Vancouver), No. 531; Victoria High School, No. 112.

In Military District No. 11 there are on issue to cadet corps 1,595 rifles, as follows: 1,130 G.P. Ross, 382 Ross 22's, and 83 Snider carbines.

Financial Statement for 1916-17.

The funds at the disposal of the Local Committee for 1916-17 amounted to $1,265.85, and the expenditure for the year to $806.50, leaving an unexpended balance of $459.35. Of this balance, $414 has already been voted for physical-training prizes, 1917-18.

Receipts.

1916-17.	Balance on hand from 1915-16	$ 445 38
	Interest to November 30th, 1916	13 06
	Allowance to Secretary (added to fund)	10 00
	Grant for 1916-17 (received in May, 1917)	790 29
	Interest to May 31st, 1917	7 12
		$1,265 85

Disbursements.

1916-17.	Prizes for physical training, 1916-17	$ 424 00
	Prizes for military drill, 1916-17	262 50
	Prizes for rifle shooting, 1916-17	120 00
		$ 806 50
	Balance on hand	$ 459 35

David Wilson,
Secretary, Local Committee, Strathcona Trust, for British Columbia.

TEACHERS' EXAMINATION, 1917.

The annual examination of candidates for certificates of qualification to teach in public schools of the Province began on June 25th, 1917, and was held simultaneously in the High School buildings of Agassiz, Armstrong, Bridgeport, Chilliwack, Cranbrook, Cumberland, Duncan, Enderby, Esquimalt, Fernie, Golden, Grand Forks, Greenwood, Kamloops, Kaslo, Kelowna, Ladner, Ladysmith, Matsqui, Mission, Nanaimo, Nelson, New Westminster, Oak Bay, Peachland, Penticton, Point Grey, Port Alberni, Prince Rupert, Revelstoke, Rossland, Salmon Arm, Summerland, Trail, Vancouver (Britannia, King Edward, and King George), North Vancouver, South Vancouver, Vernon, and Victoria, as well as at Abbotsford, Belmont, Cloverdale, Courtenay, Creston, Hedley, Maple Ridge, Merritt, Naramata, Prince George, Quesnel, and Sidney.

The examiners appointed to act with the Superintendent of Education were: W. K. Beech, M.A.; T. A. Brough, B.A.; William Burns, B.A.; H. Chodat, M.A.; J. B. DeLong, B.A.; J. T. Dunning, M.A.; P. H. Elliott, B.Sc.; J. S. Gordon, B.A.; James Henderson, M.A.; J. K. Henry, B.A.; H. P. Hope, B.A.; D. C. Little, B.A.; R. A. Little, B.A.; S. W. Mathews, M.A.; D. L. MacLaurin, B.A.; E. B. Paul, M.A.; Walter Putnam, B.Sc.; E. H. Russell, B.A.; A. G. Smith, M.A.; S. J. Willis, B.A.; David Wilson, B.A.

The following are the successful candidates:—

ACADEMIC CERTIFICATES.

(Names in alphabetical order.)

Anderson, George Renwick, B.A., Mount Allison University, New Brunswick.
Anderson, Jessie J., B.A., University of British Columbia.
Baker, Jacob J., B.A., University of Toronto.
Benger, Irene, B.A., Queen's University, Kingston.
Cameron, Ella G., B.A., University of British Columbia.
Carruthers, Bertha M., B.A., University of British Columbia.
Chapin, Florence B., B.A., University of British Columbia.
Colegrave, Dorothy J., B.A., University of Manitoba.
Denne, Lexa, B.A., University of Toronto.
Dunbar, Robert G., B.A., McMaster University, Toronto.
Dunn, Alexander, B.A., University of Manitoba.
Dunton, Marjorie M., B.A., University of British Columbia.
Elliott, Jessie B., B.A., McGill University, Montreal.
Fallows, Marjorie H.
Gordon, John G., M.A., Queen's University, Kingston.
Gordon, J. Irvine, B.A., University of Toronto.
Greenwood, Bessie, B.A., McGill University, Montreal.
Hedley, Bertha, B.A., University of Oxford, England.
Hildred, Edna L., B.A., University of Toronto.
Hindle, Thomas, B.A., McMaster University, Toronto.
Howard, Edith L.
Howell, Benjamin H.
Jackson, Ella J., B.A., McGill University, Montreal.
Kelly, Mrs. Charlotte, B.A., University of Dublin.
Lambert, Walter H.
Lamond, Jemima, M.A., St. Andrew's University, Scotland.
Lane, Laura M., B.A., University of British Columbia.
Lewis, Vera M.
Miller, Grace W., B.A., University of British Columbia.
Mitchell, Joel M., B.A., University of Toronto.
Munro, Donald H., B.A., University of British Columbia.
Murphy, Francis L., B.A., St. Francis Xavier University, Nova Scotia.
McDonald, George B.A., Queen's University, Kingston.

ACADEMIC CERTIFICATES—*Concluded.*

(Names in alphabetical order.)

McKinnon, Catherine P.
McLoughlin, Joseph J., B.A., University of Manitoba.
McQueen, Mrs. Catherine, B.A., McGill University, Montreal.
Nelson, Eda M., B.A., Dalhousie University, Halifax.
Norman, Alfred G., B.A., University of Oxford, England.
Rosebrugh, Josie P., B.A., University of British Columbia.
Schwesinger, Gladys C., B.A., University of British Columbia.
Shaw, Hazel J.
Spurr, Edith M., M.A., Acadia University, Nova Scotia.
Tourigny, Phoebe A.
Vermilyea, Ada I., B.A., University of British Columbia.
Wallace, Paul A. W., B.A., University of Toronto.
Wheeler, Arthur L.

FIRST-CLASS CERTIFICATES.

(Names in alphabetical order.)

Armstrong, Clara M.
Calbick, Isabelle C.
Carter, Edna A.
Carter, Lillian A.
Clarke, John A.
Dale, A. Ruth.
Eldridge, Hazel E.
Ferguson, Clifford J.
Fox, Marjorie.
George, Eleanor E.
Gilbert, Winnifred V.
Harris, Edith L.
Jackson, Margaret E.
Johnston, Katharine S.
Kane, Mavis Y.
Kinnaird, Marion P.
Mackenzie, Christena A.
McLean, Eleanor M.
McNeill, Hazel.
Peck, Dorothy E.
Sampson, Tryphena.
Smith, Frederick W.
Smith, Grace P.
Wiltshire, Violet E.
Wood, Elsie D.

SECOND-CLASS CERTIFICATES.

(Names in alphabetical order.)

Agar, Ruth E.
Aird, Olive M.
Alexander, Olive Mary.
Apps, George E.
Atherton, Mabel M.
Bailey, Cassie M.
Baker, Lorimer G.
Batten, Constance M.
Bauld, Elizabeth W. M.
Bennett, Illina L.
Bissett, Vera M.
Bond, Ivy Buckland.
Bradshaw, Henrietta A.
Bradshaw, Madeline V.
Brett, Elizabeth M.
Brice, Eunice D.
Brown, Alexia M.
Brown, Hugh A.
Brown, William H.
Brundrett, Lyla I.
Bryant, Dorothy G. H.
Bull, Rita E.
Bullock, Doris M.
Burnes, Irene M.
Cameron, Ralph K.
Chambers, John A.
Chatterton, Ada L.
Clyde, Gladys L.
Copeland, Elsie C.
Corbett, Jennie U.
Cowherd, Isabel M.
Creeden, Elsie.
Creighton, James H.
Crowe, Edith J.
Cunningham, Helen E.
Curtis, Marguerite.
Dailey, Helen S.
Davies, Violet M.
de Macedo, William.
Donaghy, Florence I.
Donaldson, J. S. R.
Dorman, Marietta A. C.
Drescher, Dorothy S.
Embree, Alice M.
Etter, Enid M.
Etter, Harold C.
Findlay, Lillian E.
Finland, Sadie L.
Fisher, Victoria M.
Franklin, Ruth H.
Fraser, Corenna C.
Fraser, Jessie U.
Fullerton, Lilian E.
Gavelin, Elin H.
Gilpin, Bertha M.
Grafton, Thelma R.
Graham, Rita R.
Grant, Earle S.
Gregory, Gladys A.
Grubb, Kathleen.
Hambly, Gladys M.
Hamill, Florence E.
Hamill, Violet A.
Hamilton, Ida S.
Hanna, Elva G.
Harris, Opie M.
Harvie, Jane Ayton.
Hawe, Elsie V.
Hay, Mary Willard.
Heaps, Elsie Frankland.
Irvine, Agnes Sarah.
Irvine, Mildred.
Jacks, Alberta E. A.
Jenns, Phyllis E.
Johnston, Mary.
Jones, Nellie M.
Jordan, Eileen A.
Kay, Mabel C. H.
Kerr, Aleeta Ingaretha.
Kerr, Mary F.
Kincaid, Jean C.

SECOND-CLASS CERTIFICATES—*Concluded.*

(Names in alphabetical order.)

King, Sibyl N.
Laidlaw, Bessie F.
Lancaster, Rachel A.
Lawrence, Florence E.
Layton, Margaret R.
Leckie, Dorothy G.
Lee, Dorothy M.
Lehman, Melba B.
Leigh, Edna M.
Litch, Annie M.
Marling, Helen L.
Marquart, Wilhelmina M.
Matheson, Elsie A. M.
Natz, Margaret.
Mellish, Margaret.
Menzies,, Reta M.
Minckler, Cora E.
Monteith, Bessie L.
Mufford, Aurelia O.
Munro, Alice Laurina.
Murray, Harold E.
McArthur, Helen M.
McCallum, Amelia Alvina.
McCannel, Margery S.
McCarthy, Mary Margaret.
McCartney, Verna.
McConnell, Adeline L.
McDiarmid, Florence L.
Macfie, Mabel T.
McHeffey, Jessie.
McIntyre, Janet I.
McKay, Pearl L.
McKeil, Edna B.
Mackenzie, Olive B.
MacLachlan, Annie L.
McLean, Adelaide N.
McLennan, Annie May.
McPherson, Osberta.
McRae, Genevieve C.
McRae, Mrs. Jeanie B.
McWhinney, Edna.
Nelson, Thelma.
Nesbit, Frances Mary.
Newby, Evelyn B.
Norris, Marianne Frances.
Nutt, Gladys E. A.
Oliver, Sarah E.
Orr, John M.
Palmer, May Louise.
Percival, Edith M.
Perry, Alice J.
Peto, Rowena Duff.
Reid, Annie Murray.
Renwick, Mildred Isabel.
Ritchie, Catherine.
Ritchie, Hazel Mervyn.
Robertson, William.
Roney, Bess.
Ross, Winifred Jean.
Roy, Elsie.
Sager, John Earl.
Sanson, Margaret H.
Sargent, Beatrice H.
Sargent, Hartley Marguerite.
Scarlett, Gladys Marie.
Shand, Jane Rae.
Shore, Alena M.
Sidney, Ruby G.
Simpson, Jean B.
Sing, Edith Norine.
Smith, Ella Grant.
Smith, Gertrude C.
Smith, Ruth Esther.
Smythe, Winnifred B.
Sparling, Edna Ruth.
Stanton, Victoria Ann.
Stern, Florence.
Stewart, Agnes Marion.
Swanson, Jessie.
Tapanila, Olga E.
Taylor, Alice H.
Taylor, Marguaretta M. S.
Taylor, Sadie Alberta.
Terry, Ilace.
Thomas, Elizabeth A.
Thompson, Margaret G.
Tranfield, Britta M.
Twaddle, Annie E.
Varcoe, Elsie Irene.
Wallach, Catherine E.
Warner, Harold W.
Waugh, Mary Sue.
Webber, Evelyn Hall.
Weeks, Florence E.
Wheeler, Lilian M.
White, Annie.
Whitworth, Anna Marjorie.
Williamson, Dorothy K.
Williamson, Margaret H.
Wilson, Emeline Athelia.
Wollaston, Mrs. Alice B.
York, Kathleen L.

THIRD-CLASS CERTIFICATES—VALID FOR LIFE.

(Names in alphabetical order.)

Andernach, Agnes E.
Annable, Gertrude Sara.
Beane, Agnes.
Blake, Mabel Nellie.
Bolden, Gertrude L.
Bournes, Ellen E.
Bower, Dorothy G.
Cameron, Charles A.
Campbell, Beatrice M. E.
Cook, Edith Cecile.
Crawford, Alphonse M.
Dainard, Wallace.
Davenport, Mildred E.
Debney, Dorothy F. L.
Dewar, Annie.
Dougherty, J. Louise.
Durick, Dorothy Ellen.
Ede, Kate Frances.
Edmonds, Elsie A.
Fleming, Elsie McL.
Fletcher, Ellen Honey.
Fox, Gladys Pearl.
Gibbs, Edith G. B.
Gilchrist, Nellie F.
Gyves, Mary C.
Hardacre, Grace E. M.
Harrison, Maude M.
Henderson, Laura C.
Hirst, Maud Marjorie.
Irving, Grace T.
Ivens, Louise E.
Jackson, Wilma.
James, Mabel.
Johnson, Robert.
Keeping, Florence E.
Lane, Mona.
Lawrence, Florence K.
Leary, Daisy A.
Leavens, Retta Irene.
Lees, Jessie Playfair.
Litch, Kathleen L.
Little, Helen.
Long, Eileen Maude.
Lowther, Mary L.
Martin, Marguerite M.
Mercer, Frances Carroll.
Morriss, Mary Rachel.
Mutrie, Mona Mary.
McAllister, Annie Wilhelmina.
MacDonald, Dolena Rosa.
McDonald, Sivris Mearl.
McInnes, R. Wallace.
McKay, Ruth Boyne.
MacKenzie, Christena M.

THIRD-CLASS CERTIFICATES—VALID FOR LIFE—*Concluded.*

(Names in alphabetical order.)

McKenzie, Orpah Margaret.
McKinnell, Eveline Beatrice.
MacKinnon, Mary.
MacLeod, Charlotte L.
Macphail, Norma Jane.
Neate, Kathleen M. L.
Newman, Bertha L.
Nicholles, Clara L. I.
Oates, Lillian E.
O'Brien, Mary Ellen.
Page, Annie Celeste.
Paterson, Margaret B.
Paterson, Mrs. Rita L.
Payne, Eva Florence.
Postill, Dorothy.
Prefontaine, Clare B.
Rickaby, Isabella M. G.
Sherwood, Dorothy W.
Simpson, Edith C.
Stevenson, Eleanor L.
Tallander, Louise J.
Ternan, Lillian Hilda.
Thomson, Eva Marie.
Wagner, Irene P.
Watson, Jessie.
White, Mrs. Lydia.
Wilcox, Mary Ruth.
Wilkie, Margaret Gordon.
Williamson, Margaret H.
Wright, Joyce Mary.

THIRD-CLASS CERTIFICATES.

(Names in alphabetical order.)

Arrowsmith, Effie Frankie.
Aubrey, Constance M.
Berto, John Clifford.
Bettes, Freda G.
Bowden, Mabel.
Brannick, Joseph C.
Brett, Eleanor.
Burnham, Lillian M.
Campbell, Laura May.
Clegg, Rhoda Belinda.
Downey, Rosemary C.
Forster, Enid Frederic.
Fowler, Amy E.
Gibson, Bessie Mae.
Hagelstein, George F.
Halliday, Agnes McV.
Hardy, Mary Christina.
Herd, Jessibelle.
Hogg, Rosa E.
House, Gladys I.
Hunter, George A.
Hutchison, Edith H.
Jones, Hazel D.
Jones, Margaret Ellen.
Kvarno, Helen Ingleborg.
Lang, Mary Florence.
Little, Isabelle.
Mack, Marguerite A.
Manning, Zella M.
Maxwell, Ethel W.
Milley, Myrtle Ellen.
Morrison, Alice L.
Morrison, Marion E.
Munro, Helen Z.
Macdonald, Catherine A. M.
Macdonald, Genevieve M.
MacEwan, Dorothy Jean.
McGregor, Norma I.
McHattie, F. Edith.
McKenna, Mary Rose.
McKenna, Teresa.
McKinnon, Flora Mary.
McNeill, Florence M.
McTavish, Janet L. E.
Newman, Rachel.
Nixon, Eva M.
Pedlow, Gladys Lillian.
Pope, Daphne A.
Preston, Margery.
Raftery, Rosalie A.
Richter, Freida Marie.
Robinson, Eva.
Simpson, May.
Smiley, Dorothea C.
Spence, Annie J.
Street, Irma Sophia.
Stubbs, Gwendoline.
Sutherland, Janet Margaret.
Thomas, Marjorie C.
Thompson, Annie L.
Thomson, Hazel Marie.
Traviss, Violet.
Williams, Myrtle E.

THIRD-CLASS CERTIFICATES—RENEWED FOR ONE YEAR.

(Names in alphabetical order.)

Bell, Etta L.
Booth, Annie.
Bowell, Bertha J.
Bradley, Emily.
Brethour, Margaret M.
Brethour, Helen.
Brown, Elizabeth E.
Cameron, Bertha I.
Carson, Ellen M.
Carter, Louise J.
Christensen, Carl D.
Crawford, Dora.
Creech, Mary M.
Darbyshire, Mrs. Jane.
Eastman, Bessie G.
Ford, Mabel R.
Frame, Margaret M.
Fraser, Mrs. Hattie.
Gibson, Frances.
Gibson, Grace E.
Gibson, Margaret.
Godson, Grace A.
Haarer, Isabel K.
Hall, Carrie.
Hardie, Violet.
Holmes, Mary H.
Howell, Ada M.
Hume, Mrs. Ada W.
Kennedy, Mrs. Margaret N.
King, John.
Lawrence, May.
Leighton, Annie L.
Lister, Ellen.
Lovell, Elizabeth S.
Marsden, Sarah.
Mellard, Carrie E.
McDonald, Christina J.
MacKenzie, John K.
MacKenzie, Mrs. Lena B.
McLennan, Annie.
McMartin, Jane.
Plaxton, Elsie D.
Pringle, Lena S.
Ramsay, Mary G.
Ramsay, Margaret.
Read, Ellen R.
Robertson, Margaret M.
Sharpe, Phoebe O.
Shrapnel, Elsie S.
Starret, Mrs. Clara P.
Sullivan, Margaret M.
Thomson, James W.
Toop, M. Ida.
Vannetta, Annie E.
Williams, Mrs. Bibianne.
Woodman, Annie M.

SCHOOL DISTRICTS.

Since the publication of the School Report for 1915-16, the Honourable the Council of Public Instruction has made changes in the boundaries of the following school districts, and has also created school districts with limits as herein stated:—

CITY SCHOOL DISTRICT.

CUMBERLAND—April 17th, 1890. Boundaries altered and redefined December 17th, 1901, and April 13th, 1917:

All that area embraced within the corporate limits of the City of Cumberland, together with Sections 25, 26, 27, and 28 of Township 10, Comox District, and Lots 20, 21, and 24, Section 3, and Block 144 of Nelson District.

RURAL MUNICIPALITY SCHOOL DISTRICT.

CHILLIWACK—March 6th, 1906. Boundaries altered and redefined February 25th, 1908, and November 26th, 1917:

Commencing at a point where the southern boundary of Section 19, Township 22, Range 1, New Westminster District, intersects the eastern shore-line of Sumas Lake; thence due east to the south-east corner of Section 21 of said township; thence due north three miles; thence due east eleven miles to the eastern boundary of New Westminster District; thence due north to the south bank of the Fraser River; thence in a westerly direction following south bank of said river to the mouth of Sumas River where it flows into the Fraser River; thence along the eastern bank of said river in a southerly direction to Sumas Lake; thence following the eastern shore of said lake in a southerly direction to the point of commencement.

RURAL SCHOOL DISTRICTS.

CAMPBELL CREEK—May 23rd, 1899. Boundaries altered and redefined October 8th, 1901; December 18th, 1905; May 16th, 1907; June 30th, 1913; and November 6th, 1917:

Commencing at the north-east corner of Lot 263, being a point on the south bank of the South Thompson River, Kamloops Division of Yale District; thence due south to the south-east corner of said lot; thence due east to the north-east corner of Section 29, Township 19, Range 15; thence due south to the south-east corner of Section 17 of said township; thence due west half a mile and due south one mile to the middle point of the southern boundary of Section 8; thence due west to the south-west corner of Section 8, Township 19, Range 16; thence due north to the north-west corner of Section 17 of said township; thence due east to the north-east corner of said section; thence due north to the north-west corner of Section 28 of said township; thence due west to the south-west corner of Section 31 of said township; thence due north to the South Thompson River; thence easterly following the meanderings of said river to the point of commencement.

CHERRY CREEK—October 7th, 1913. Boundaries altered and redefined November 7th, 1914, and October 23rd, 1917:

Commencing at the south-west corner of Lot 142, Alberni District; thence due east to the south-east corner of Lot 138; thence due north to the north-east corner of said lot; thence due east to the south-east corner of Lot 136; thence due north to a point where the eastern boundary-line of Lot 136 meets the southern boundary of Block 80; thence due east to the south-east corner of said block; thence due north along the eastern boundary of Block 80 to the E. & N. Railway; thence following the said railway in a north-westerly direction to a point where it would be intersected by the production in a straight line of the western boundary-line of Lots 103 and 234; thence due south to the north-east corner of Lot 194; thence due west to the north-west corner of said Lot 194; thence due south to the south-west corner of Lot 111; thence due east to the south-east corner of said Lot 111; thence due south to the south-west corner of Lot 103; thence due west to the north-west corner of Lot 146; thence due south to the south-west corner of said lot; thence due west to the

north-west corner of Lot 112; thence due south to the south-west corner of said lot; thence east to the south-east corner of said lot; thence due north to the south-west corner of Lot 93; thence east following the southern boundary of Lots 93 and 15 to the north-west corner of Lot 152; thence south following the western boundaries of Lots 152, 143, and 142 to the point of commencement.

CLAYOQUOT—August 24th, 1909. Boundaries altered and redefined February 21st, 1917:

All that portion of the peninsula between Templar Channel and Browning Passage north of the southern boundary-lines of Lots 274, 275, and 276, Clayoquot District, together with Stubbs Island and Jacobson's Island to the north of said peninsula.

DIAMOND CROSSING—March 19th, 1912. Boundaries altered and redefined August 14th, 1917:

Commencing at the north-east corner of Lot 18A, Oyster District, being a point on the west shore of Oyster Harbour; thence due west to the north-west corner of Lot 51, Oyster District; thence due north to the north-east corner of Lot 11, Bright District; thence due west to the north-west corner of Lot 16, Bright District; thence due south to the western projection of the southern boundary-line of Lot 94, Oyster District; thence due east to the south-east corner of said lot; thence due north to the north-east corner of said lot; thence due east to the south-east corner of Lot 75, Oyster District; thence in a straight line to the south-west corner of Lot 84, Oyster District; thence due east to the sea-shore; thence in a north-westerly direction along the shore-line to the point of commencement.

EDITH LAKE—August 1st, 1906. Boundaries altered and redefined, raised to the status of a regularly organized school district; name changed from "Jacko Creek" to "Edith Lake" April 9th, 1910. Boundaries altered and redefined April 15th, 1913; January 19th, 1915; and October 19th, 1917:

Commencing at the north-east corner of Section 30, Township 19, Range 17, Kamloops Division of Yale District; thence due south to a point on the northern boundary of Lot 453, Kamloops Land District; thence east, south, and west following the boundaries of said lot to the point of intersection with the western boundary of Section 29; thence due south to the south-east corner of Section 19 of said township; thence due east to the north-east corner of Section 17 of said township; thence due south to the south-east corner of said section; thence due east to the north-east corner of the North-west Quarter of Section 9 of said township; thence due south to the northern boundary of Lot 441, Kamloops Land District; thence east, south, and west following the boundaries of said lot to the point of intersection with the centre line of Section 9 of said township; thence due south to the northern boundary of Lot 585, Kamloops Land District; thence east, south, and west following the boundaries of said lot to the point of intersection with the eastern boundary of Section 32, Township 18, Range 17; thence due south to the south-east corner of the North-east Quarter of Section 29 of said township; thence due west to the south-west corner of the North-west Quarter of Section 27, Township 18, Range 18; thence due north to the north-east corner of Section 33 of said township; thence due west to the south-east corner of Section 4, Township 19, Range 18; thence due north to the north-east corner of the south-east quarter of said section; thence due west to the north-west corner of said quarter-section; thence due north to the north-west corner of the South-east Quarter of Section 16 of said township; thence due east to the western boundary of Section 14 of said township; thence due north to the north-west corner of Section 26 of said township; thence due east to the point of commencement.

FANNY BAY—March 17th, 1908. Boundaries altered and redefined January 6th, 1909; and August 14th, 1917. Raised to the status of a regularly organized school district December 13th, 1912:

Commencing at the eastern end of the northern boundary-line of Newcastle District, being a point on the sea-shore; thence due west to the north-west corner of Lot 88 of said district; thence due south to the western projection of the extreme southern boundary-line of Lot 87; thence due east to the south-east corner of said Lot 87; thence due east to the south-east corner of said Lot 87; thence due north to the sea-shore; thence following the shore-line in a westerly and northerly direction to the point of commencement. This school district shall also include Lot 44 of Nelson District.

GILL—May 27th, 1901. Boundaries altered and redefined May 30th, 1902; November 15th, 1910; November 7th, 1914; and October 23rd, 1917:

Commencing at the north-east corner of Lot 94, Alberni District; thence due west to the north-west corner of Lot 94; thence due south to the north-east corner of Lot 168; thence west to the north-east corner of Lot 39, being a point on the Somass River; thence following the Somass River westerly to the forks; thence following the Sproat River to Sproat Lake; thence south-westerly following the shore-line of said lake to the western boundary of the E. & N. Railway Belt; thence south along said boundary to the shore of Sterling Arm; thence easterly following said shore-line to the south-west corner of Lot 61; thence due east following the southern boundary-lines of Lots 61, 268, 124, and 6 to the shore-line of Alberni Canal; thence following the meanderings of the said shore-line in an easterly and northerly direction to a point on the southern boundary of Lot 2 where the said shore-line would be intersected by the production in a straight line of the eastern boundary-lines of Lots 21 and 10; thence north on the line so produced to its intersection with the right bank of the Somass River; thence following the right bank of said river in a north-westerly direction to the point where it would be intersected by the eastern boundary-line of Lot 7 produced in a straight line; thence north on the line so produced to the south-east corner of Lot 7; thence due north to the south-west corner of Lot 8; thence east to the south-east corner of said lot; thence due south to the south-west corner of Lot 21; thence due east to the south-east corner of Lot 100; thence north to the north-east corner of said lot; thence east to the south-east corner of Lot 145; thence due north to the north-east corner of Lot 144, being a point also on the boundary of Lot 42; thence following the boundary-line of Lot 42 east and north to its north-east corner; thence due west to the south-east corner of Lot 167; thence due north along the eastern boundary of Lots 167 and 94 to the point of commencement.

GRINDROD—June 23rd, 1911. Raised to the status of a regularly organized school district September 18th, 1913. Boundaries altered and redefined October 28th, 1913; February 13th, 1917; and October 13th, 1917:

Commencing at the point where the northern boundary-line of Section 29, Township 19, Range 8, Kamloops Division of Yale District, intersects the right bank of the Shuswap River; thence due east to the north-east corner of Section 27 of said township; thence due south to the south-east corner of Section 22 of said township; thence due west to the south-west corner of Section 20 of said township; thence due south to the middle point of the eastern boundary-line of Section 18 of said township; thence due west to the left bank of the Shuswap River; thence following said bank in a southerly direction to the point where it intersects the southern boundary-line of Section 11, Township 19, Range 9; thence due west to the south-west corner of Section 10 of said township; thence due north to the north-west corner of Section 15; thence due east to the north-east corner of said section; thence due north to the north-west corner of Section 23; thence due east to the middle point of the north boundary of said Section 23; thence due north to the middle point of Section 26; thence due east to the middle point of the eastern boundary of said section; thence due north to the north-east corner thereof; thence due east to the middle point of the southern boundary of Section 36; thence due north to the northern boundary of said section; thence due east to the right bank of the Shuswap River (crossing said river once only); thence following said bank to the point of commencement.

KELOWNA, NORTH—March 12th, 1912. Boundaries altered and redefined November 27th, 1916:

All that part of Townships 23 and 26, Osoyoos Division of Yale District, contained in Blocks 1 to 9 (inclusive), and in Blocks 16, 17, 20, 21, 22, and 23 of Glenmore Valley Subdivision, as shown on a map or plan deposited in the Registry Office at Kamloops and numbered 896.

KEREMEOS, SOUTH—September 28th, 1915. Raised to the status of a regularly organized school district, and name changed from "Keremeos, South" to "Cawston" October 25th, 1917:

Starting at the north-east corner of Section 17, Township 54, Osoyoos Division of Yale District; thence due west to the Similkameen River; thence in a southerly direction following the meanderings of said river to the north-west corner of Section 9, Township 52; thence

due south to the south-west corner of Section 4 of said township; thence due east to the eastern boundary-line of Section 5, Township 54; thence due north to the point of commencement.

LUMBY—May 27th, 1908. Boundaries altered and redefined August 18th, 1898; December 18th, 1905; February 19th, 1907; September 20th, 1912; and November 27th, 1916:

Commencing at the south-east corner of Section 1, Township 3, Osoyoos Division of Yale District; thence due north following the eastern boundary of Township 3 to the north-east corner of Section 13 of said township; thence due east to the middle point of the western boundary-line of Lot 304; thence due north to the north-west corner of said lot; thence due east to the south-east corner of the North Half of the South-east Quarter of Section 20, Township 41; thence due north to the north-east corner of Section 8 of Township 40; thence due west following the section-lines to the middle point of the northern boundary-line of Section 11, Township 2; thence due south through the centres of Sections 11 and 2 to the middle point of the southern boundary-line of Section 2; thence due west following the section-lines to the north-west corner of Section 31, Township 3; thence due south one mile to the south-west corner of said Section 31; thence due south (following the boundaries of the Coldstream Municipality) 20 chains; thence due east 40 chains; thence north 20 chains; thence east 40 chains to the north-east corner of Section 30, Township 6; thence due south 60 chains to the south-east corner of the North Half of the South-east Quarter of Section 30, Township 3; thence due west to the north-east corner of Lot 87; thence south, west, and south along the easterly boundary of said Lot 87 to the north-east corner of Lot 13; thence south following the easterly boundary of Lot 13 to the south-east corner of Lot 13; thence due west to north-west corner of Section 18, Township 3; thence due south to the middle point of the western boundary-line of Section 18 of said township; thence due east to the middle point of the eastern boundary-line of Section 17 of said township; thence due south to the south-west corner of Section 4 of said township; thence due east to the point of commencement.

MARA—May 27th, 1898. Boundaries altered and redefined December 18th, 1905; June 23rd, 1911; and October 13th, 1917:

Commencing at the point where the southern boundary-line of Section 32, Township 19, Range 8, Kamloops Division of Yale District, intersects the right bank of the Shuswap River; thence due east to the south-east corner of Section 34 of said township; thence due north to the middle point of the eastern boundary-line of Section 27, Township 20, Range 8; thence due west to the middle point of Section 25, Township 20, Range 9; thence due south to the southern boundary-line of said township; thence due east to the right bank of the Shuswap River (crossing said river once only); thence following said bank to the point of commencement.

MARTIN'S PRAIRIE—July 28th, 1909. Raised to the status of a regularly organized school district March 8th, 1912. Boundaries altered and redefined September 10th, 1917, and November 6th, 1917:

Commencing at a point where the western boundary of C.G. 36, Kamloops Division of Yale District, meets the south bank of the South Thompson River; thence due south to the south-east corner of Lot 350, Group 1, Kamloops Land District; thence due west to the western boundary of Section 35, Township 19, Range 14; thence south to the south-west corner of said section; thence due east to the eastern boundary of said township; thence due south to the south-west corner of Section 30, Township 19, Range 13; thence due east to the south-east corner of Section 29 of said township; thence due north to the north-east corner of Section 8, Township 20, Range 13; thence due west to the eastern boundary of Lot 512, Group 1; thence following the boundaries of said lot in a south-westerly and westerly direction to a point on the south bank of the South Thompson River; thence following the south bank of said river in a south-westerly direction to the point of commencement.

MONTE CREEK—June 21st, 1893. Boundaries altered and redefined May 23rd, 1899; December 18th, 1905; May 16th, 1907; July 28th, 1909; October 19th, 1914; and November 6th, 1917. Name changed from "Ducks" to "Monte Creek" August 21st, 1913:

Commencing at the north-east corner of Lot 263, being a point on the south bank of the South Thompson River, Kamloops Division of Yale District; thence due south to the south-east corner of said lot; thence due east to the north-east corner of Section 29, Township 19, Range 15; thence due south three miles; thence due east to the north-west corner of L.S. 15 of Section 12, Township 19, Range 15; thence due south 20 chains and east 20 chains to the south-east corner of said L.S.; thence due south to the south-west corner of L.S. 1 of said section; thence due east to the eastern boundary of Township 19, Range 15; thence due south to the northern boundary of Township 18, Range 15; thence due east to the eastern boundary of Township 18, Range 15; thence due south three miles, east three miles, and north three miles to the southern boundary of Township 19, Range 14; thence due west to the south-west corner of Section 3, Township 19, Range 14; thence due north two miles, due west one mile, and due north to the southern boundary of Lot 288, Group 1; thence due east to the south-west corner of C.G. 1; thence due north to a point on the north bank of the South Thompson River; thence following the said bank in a south-westerly direction to the eastern boundary of Township 19, Range 15; thence due north to the north-east corner of Section 12, Township 20, Range 15; thence due west five miles; thence due south to the northern boundary of Lot 282, Group 1, C.G. 2166; thence following the northern and eastern boundary-lines of said lot in an easterly and southerly direction to the north bank of the South Thompson River; thence in a straight line to the point of commencement.

NARAMATA—December 31st, 1907. Boundaries altered and redefined November 27th, 1916:

Commencing at a point on the east shore of Okanagan Lake where the southern boundary-line of Lot 206, Osoyoos Division of Yale District, intersects the said shore-line; thence due east to the south-east corner of said lot; thence due north to the southern boundary-line of Lot 3315; thence due east to the south-east corner of said lot; thence due north along the eastern boundary of said lot and of Subdivision Lot 19 to the north-east corner of said Subdivision Lot 19; thence due west to the eastern boundary of Lot 3314; thence due north to the north-east corner of said lot; thence due east to the south-east corner of Lot 197 (S.); thence following the east and north boundaries of said lot to the east boundary of Lot 286; thence following the east and north boundaries of said Lot 286 to the lake-shore, following the shore in a southerly direction to the point of commencement.

NORTH BEND—May 27th, 1898. Boundaries altered and redefined June 21st, 1915, and February 20th, 1917:

All that tract of land situated in Yale District comprised within the circumference of a circle whose centre shall be the centre of the plot of land used as a school-site at North Bend and whose radius shall be a distance of four miles from such centre; save and except the following areas, which are hereby excluded:—

1. All the land within the said circumference lying north of a straight line drawn from the south-west corner of Section 30, Township 11, Range 26, Kamloops Division of Yale District, to the south-east corner of Section 25 of said township.

2. All the land within the said circumference lying east of the Fraser River.

OCEAN FALLS—June 27th, 1917. Raised to the status of a regularly organized district June 27th, 1917:

All that tract of land included in Lots 31, 103, Water Lot 104, Range 3, Skeena Land Recording District.

OYSTER, EAST—June 1st, 1908. Boundaries altered and redefined October 19th, 1914; deorganized and boundaries cancelled October 17th, 1917.

OYSTER, NORTH—April 30th, 1891. Boundaries altered and redefined April 23rd, 1906; June 1st, 1908; August 7th, 1908; October 19th, 1914; and October 17th, 1917:

Commencing at the north-west corner of Oyster District; thence due south along the western boundary-line of Oyster District to the eastern projection of the northern boundary-line of Lot 5, Bright District; thence due west to the north-west corner of said Lot 5, Bright District; thence due south to the south-west corner of Lot 12 of said district; thence due east to the southern projection of the western boundary-line of Lot 20, Oyster District;

thence due north to the south-west corner of said Lot 20; thence due east to a point on the sea-shore at Ladysmith Harbour; thence following the shore-line in a south-easterly direction to the south-eastern corner of Section 2; thence due north to the western projection of the southern boundary-line of Lot 11; thence due east to the south-east corner of said Lot 11; thence due north to the south-west corner of Lot 57; thence due east to the south-east corner of Lot 47; thence due north to the south-east corner of Lot 36; thence due west to the south-west corner of said Lot 36; thence due north to the north-west corner of said Lot 36; thence due west to the south-west corner of Lot 113; thence due north to the north-west corner of said Lot 113; thence due west to the point of commencement.

PENDER ISLAND—May 13th, 1896. Boundaries altered and redefined April 23rd, 1906; August 6th, 1915; and June 26th, 1917:

All that tract of land known as North Pender Island, in the Islands Electoral District.

WELLINGTON—May 2nd, 1874. Boundaries altered and redefined June 6th, 1887; April 30th, 1891; December 18th, 1905; and August 14th, 1917:

Commencing at the north-west corner of Lot 47, Wellington District, being a point on the sea-shore; thence due south to the south-west corner of said Lot 47; thence due west to the north-west corner of Lot 48; thence due south to the south-west corner of said Lot 48; thence due west to the north-west corner of Section 12; thence due south to the south-west corner of said Section 12; thence due west to the north-west corner of Lot 34; thence due south to the south-west corner of said Lot 34; thence due west to the western boundary of Wellington District; thence south along the western boundary-lines of Wellington and Mountain Districts to the south-west corner of Section 16, Range 1, Mountain District; thence east along the section-lines to the south-east corner of Section 16, Range 5; thence north along the range-line to the north-east corner of Section 19 of said range; thence due east to the western boundary-line of Departure Bay School District; thence north following said boundary-line to the sea-shore; thence westerly along the shore-line to the point of commencement.

ASSISTED SCHOOLS.

ALICE ARM—May 11th, 1917:

All that tract of land included in Lots 68, 3635, 3643, 1074, 1079, 50, 53, 52, Prince Rupert Land Recording District.

BOSTON BAR—September 10th, 1917:

Commencing at a point where the southern boundary of Section 14, Township 10, Range 26, Yale District, intersects the east bank of the Fraser River; thence due east to the south-east corner of said section; thence due north to the north-east corner of Section 35 of said township; thence due west to the middle point of the southern boundary of Section 1, Township 11, Range 26; thence due north to the north-east corner of the South-west Quarter of Section 24 of said township; thence due west to a point on the east bank of the Fraser River; thence following said bank in a southerly direction to the point of commencement.

BOWSER—August 14th, 1917:

Commencing at the north-east corner of Lot 13, Newcastle District, being a point on the sea-shore at Deep Bay; thence due south to the southern boundary-line of said district; thence due east to the Qualicum River; thence following the left bank of the Qualicum River and the sea-shore to the point of commencement. This school district shall also include Lot 254 of Alberni District and that portion of Lot 84, Newcastle District, which lies in Alberni District.

CANFORD—October 6th, 1917:

Commencing at a point in the Kamloops District formed by the intersection of the eastern boundary of Township 14, Range 23, and the southern boundary of Indian reserve (Lower Nicola Indian Reserve No. 9) so intersected; thence west along the boundary of said Indian reserve to a point due west on the eastern boundary of the Indian reserve lying along Nicola River (being Indian Reserve No. 10); thence in a southerly direction following the eastern boundary of said reserve to its south-east corner; thence following the southern and western boundaries of said reserve to its intersection with the western boundary of Section 10, Town-

ship 14, Range 23; thence south along said western boundary to its intersection with the northern boundary of Lot 779, Kamloops Land District; thence west to the north-west corner of said lot; thence following the western and southern boundaries of said lot to the point of intersection with the western boundary of Section 34, Township 14, Range 23; thence south to the south-west corner of the North-west Quarter of Section 27, Township 13, Range 23; thence due east to the eastern boundary of Township 13, Range 23; thence north along said boundary to its intersection with the southern boundary of the Indian reserve (Lower Nicola Indian Reserve No. 8) so intersected; thence west, north, and east along the boundary of said Indian reserve to the intersection of its northern boundary with the eastern boundary of Township 13, Range 23; thence north to the southern boundary of Lot 1022, Kamloops Land District; thence east, north, and west following the boundaries of said lot to the point of intersection with the eastern boundary of Township 13, Range 23; thence due north to the point of commencement.

CASTLEGAR—September 12th, 1908. Boundaries altered and redefined September 12th, 1917:

Commencing at the point where the western boundary-line, produced, of Lot 7373, District of West Kootenay, meets the right bank of the Columbia River; thence due south to the south-west corner of said lot; thence in a straight line to the north-west corner of Lot 10200; thence due east to the western boundary-line of Lot 8072; thence due south to the south-west corner of said lot; thence due east to the south-east corner of said lot; thence due north to the south-west corner of Lot 7199; thence due east to the right bank of the Columbia River; thence following said bank in a northerly and westerly direction to the point of commencement.

CHILCO—May 25th, 1917:

All that tract of land included in the portion of Township 10, Range 5, Coast District, which lies north of the Nechako River.

CURZON—June 25th, 1912. Boundaries altered and redefined May 6th, 1913; November 29th, 1915; and October 13th, 1917:

Commencing at the north-east corner of Lot 7102, District of East Kootenay; thence due south to the northern boundary-line of the B.C. Southern Railway right-of-way; thence following said boundary-line in a south-easterly and north-easterly direction to a point due north of the north-east corner of Lot 6428; thence due south to the left bank of the Moyie River; thence following said bank in a southerly and easterly direction to the point where it intersects the eastern boundary-line of Lot 7029; thence due south to a point directly east of the south-east corner of Lot 7769; thence due west to the south-west corner of said lot; thence due north to the south-east corner of Lot 10106; thence due west to the right bank of the Moyie River; thence following said bank in a northerly direction to the north-east corner of Lot 10319; thence due west to the north-west corner of said lot; thence due north to the north-east corner of Lot 10099; thence due west to the eastern boundary-line of Lot 11592; thence due north to the north-east corner of Lot 11593; thence due west to the eastern boundary-line of Lot 8435; thence due south to the south-east corner of said lot; thence due west to the south-west corner of said lot; thence due north to the south-east corner of Lot 8436; thence due west to the south-west corner of said lot; thence due north to the north-west corner of said lot; thence in a straight line in a north-easterly direction to the north-west corner of Lot 7102; thence due east to the point of commencement.

DRAGON LAKE—November 29th, 1912. Boundaries altered and redefined February 26th, 1915; and June 6th, 1917:

Commencing at the north-west corner of Lot 4957, being a point on the Fraser River, Cariboo District; thence due east to the north-east corner of said lot; thence due north to the north-west corner of Lot 490; thence due east to the north-east corner of said lot; thence due south to the north-west corner of Lot 3960; thence due east along the northern boundary of Lots 3960, 3961 to the north-east corner of Lot 3961; thence due north to the north-west corner of Lot 193; thence due east four miles; thence due north four miles; thence in a north-westerly direction and in a straight line to the north-east corner of Lot 658; thence due west to the eastern boundary-line of Lot 81; thence due south to the south-east corner of said lot; thence due west to the north-east corner of Lot 222; thence due

south to the south-east corner of said lot; thence due west to the Fraser River; thence in a southerly direction and following the meanderings of the said river to the point of commencement.

EHOLT—November 13th, 1902. Boundaries altered and redefined December 18th, 1905; July 15th, 1908; August 19th, 1908; and February 13th, 1917. Reduced to the status of an assisted school July 1st, 1913:

Commencing at the north-east corner of Township 78, Osoyoos Division of Yale District; thence due south to the south-east corner of Section 13 of said township; thence due west to the south-west corner of Section 18 of said township; thence due north to the north-west corner of said township; thence due east to the point of commencement, save and except the following areas which are included within the above boundaries, but which are not to be considered as in any way forming part of the school district:—

1. Summit Townsite, being a subdivision of Lots 1557 and 2005.
2. The Emma Mineral Claim, being Lot 591.
3. The Mary B. Mineral Claim, being Lot 1568.

FALSE BAY—October 31st, 1917:

All that portion of Lasqueti Island lying west of the eastern boundary-lines of Sections 21, 22, 23, and 24.

FISH LAKE—January 19th, 1915. Boundaries altered and redefined October 19th, 1917:

Commencing at the north-east corner of Section 27, Township 19, Range 18, Kamloops Division of Yale District; thence due south to the south-east corner of the North-east Quarter of Section 15 of said township; thence due west to the north-west corner of the South-east Quarter of Section 16 of said township; thence due south to the centre point of Section 4 of said township; thence due east to the middle point of the eastern boundary of said section; thence due south to the boundary of the Long Lake Forest Reserve; thence following the boundaries of said reserve in a westerly and northerly direction to the western boundary of Township 19, Range 18; thence due north to the north-west corner of Section 31 of said township; thence due east to the north-east corner of said section; thence due south to the south-east corner of said section; thence due east to the point of commencement.

GRANDVIEW BENCH—October 13th, 1917:

Commencing at the north-west corner of Section 34, Township 19, Range 9, Kamloops Division of Yale District; thence due north to the middle point of the western boundary of Section 10, Township 20, Range 9; thence due east to the middle point of Section 12 of said township; thence due south to the middle point of the southern boundary of Section 36, Township 19, Range 9; thence due west to the south-west corner of said section; thence due south to the middle point of the eastern boundary of Section 26 of said township; thence due west to the middle point of said Section 26; thence due south to its southern boundary-line and due west to its south-west corner; thence following the eastern and southern boundaries of Section 22 to the south-west corner thereof; thence due north to the middle point of the western boundary of Section 27; thence west to the middle point of Section 28; thence due north to the middle point of the northern boundary of Section 33; thence due east to the point of commencement.

HARTLEY—November 19th, 1917:

Commencing at the south-west corner of Lot 2425, Fort George Land Recording District; thence due north and following the western boundary of Lots 2425, 2426, 2427, 2428, 2434, 2437, 2438, 1063, 1065 to the north-west corner of Lot 1065; thence due east and following the northern boundary of Lots 1065, 3800, 3801, 3802, 3803, 3807, 3815, 3814, 3819, 3822 to the north-east corner of Lot 3822; thence due south and following the eastern boundary of Lots 3822, 3823, 7706, 7699, 7760, 7701, 797, 804 to the north bank of the Fraser River; thence following the meanderings of the said river and in a southerly direction to the south-east corner of Lot 802; thence due west and following the southern boundary of Lots 802, 803 to the north-east corner of Lot 806; thence due south along the eastern boundary of said Lot 806 to the south-east corner of said lot; thence due west and along the southern boundary of Lots 806, 1513, 4035, 4034, 4031, 4026, 2432, 2425 to the point of commencement.

HILBORN—February 26th, 1917:

Commencing at the point where the Six-mile Creek empties into the Fraser River, Cariboo District; thence in an easterly direction and following the northern bank of said creek to the point where the said creek intersects the western boundary-line of Lot 5055; thence due north to the north-west corner of said lot; thence due east and following the northern boundary-line of said lot to a point directly south of the south-east corner of Lot 5040; thence due north and following the eastern boundary of said lot to the north-east corner of Lot 5035; thence due west to the south-east corner of Lot 5034; thence due north to the north-east corner of Lot 5034; thence due west to the south-east corner of Lot 191; thence due north to the north-east corner of Lot 191; thence due west to the north-west corner of Lot 4523; thence due south to the north-east corner of Lot 6690; thence due west following the northern boundaries of Lots 6690 and 1328 to the east bank of the Fraser River; thence following the meanderings of the Fraser River and in a southerly direction to the point of commencement.

MAPES—May 25th, 1917:

All that tract of land included in Township 8, Range 4, Coast District, in Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, and 12, of Township 1; in Sections 24, 25, and 36, of Township 7; and in Sections 1 and 12 of Township 2.

MCBRIDE—May 11th, 1917:

Commencing at the south-east corner of Lot 5304, being a point on the Fraser River, Fort George Land Recording District; thence due north and following the eastern boundary of Lots 5304, 5305, 5983; thence in a northerly and westerly direction and following the eastern and northern boundaries of Lots 5983, 3307, 3308, 3310, 3311, 3312, 3313, 3314, 3315, 3316, 3317, 3318; thence to the north-east corner of Lot 8933, being a point where the Dore River enters the Fraser River; thence following the south bank of the said river and in a south-westerly direction to the north-west corner of Lot 8946; thence due south along the western boundary of Lot 8946; thence due east along the southern boundary of Lots 8946, 8938, 3331; thence due south along the western boundary of Lots 3331, 3332, 5981; thence due east along the southern boundary of Lot 5981; thence due south along the western boundary of Lots 3333, 5980; thence due east along the southern boundary of Lot 5980; thence due south along the western boundary of Lot 5979; thence due east along the southern boundary of Lots 5979, 3533; thence due south along the western boundary of Lot 3533; thence due east along the southern boundary of Lot 3533; thence due south along the western boundary of Lots 5978, 5977; thence due east along the southern boundary of Lot 5977; thence due south along the western boundary of Lot 5975; thence due east along the southern boundary of Lot 5975; thence due south along the western boundary of Lot 5974; thence due east along the southern boundary of Lots 5974, 5973, 5307, 5303A, 5304, to the point of commencement.

MCGUIRE—October 5th, 1917:

Commencing at the north-east corner of Lot 361, District of East Kootenay; thence due south to the northern boundary-line of Lot 360; thence due east to the north-east corner of said lot; thence due south to the north-west corner of Sub-lot 44; thence due east to the north-east corner of said sub-lot; thence due south to the northern boundary-line of Sub-lot 40; thence due east to the north-east corner of said sub-lot; thence due south to the south-east corner of said sub-lot; thence due east to the north-east corner of Sub-lot 42; thence due south to the south-east corner of Sub-lot 16; thence due west to the eastern boundary-line of Indian Reserve No. 2; thence due north to the south-east corner of Sub-lot 31; thence due west to the south-west corner of Lot 357; thence due north to the south-east corner of Lot 359; thence due west to the south-west corner of said lot; thence due north to the north-west corner of said lot; thence due east to a point directly south of the south-west corner of Lot 7785; thence due north to the north-west corner of said lot; thence due east to the western boundary-line of Lot 361; thence due north to the north-west corner of said lot; thence due east to the point of commencement.

NANOOSE—April 8th, 1891. Boundaries altered and redefined June 8th, 1896; October 2nd, 1903; April 7th, 1914; June 9th, 1914; and August 14th, 1917. Reduced to the status of an assisted school June 7th, 1913:

Commencing at the north-west corner of Lot 51, Nanoose District, being a point on the sea-shore; thence following the western boundary of Lots 51 and 134 to the point where it meets the northern boundary of Lot 39; thence following the northern boundary of Lot 39 to the north-west corner of said lot; thence due south to the south-west corner of said lot; thence due east following the southern boundary of Lot 39 to the point where it meets the western boundary of Lot 135; thence due south following the western boundary of Lots 135, 121, and 55 to the point where it meets the southern boundary of Lot 31; thence due west to the eastern boundary of Lot 32; thence due south to the southern boundary of Nanoose District; thence due east following the southern boundary of said district to a point where it meets the southern projection of the eastern boundary of Lot 91; thence due north to the sea-shore; thence starting westerly and following the shore-line to the point of commencement.

OLSEN—October 31st, 1917:

Commencing at the south-east corner of Lot 4719, New Westminster Land District, being a point on the shore of Powell Lake; thence due north to the eastern projection of the northern boundary-line of Sub-lot 10 of Lot 1527; thence west to the north-west corner of said Sub-lot 10; thence south to the south-west corner of said Sub-lot 10; thence west to the eastern boundary-line of Lot 4722; thence north to the north-east corner of said Lot 4722; thence west to the north-west corner of said Lot 4722; thence south to the north-east corner of Lot 4723; thence west to the north-west corner of said Lot 4723; thence south to the north-east corner of Lot 1341; thence west to the north-west corner of said Lot 1341; thence south to the south-west corner of said Lot 1341; thence east to the north-east corner of Lot 504; thence south to the north-west corner of Lot 1272; thence east to the north-east corner of said Lot 1272; thence southerly, easterly, and southerly following the boundary-lines of said Lot 1272 to its south-east corner; thence due east to the shore of Powell Lake; thence following the shore-line of Powell Lake in a north-easterly direction to the point of commencement.

PEMBERTON RANGE—October 19th, 1914. Boundaries altered and redefined September 10th, 1917:

Commencing at the south-west corner of Township 20, Range 14, Kamloops Division of Yale District; thence due north to the north-west corner of Section 7 of said township; thence due east to the north-east corner of said section; thence due north to the north-west corner of Section 17; thence due east to the north-east corner of Section 17; thence due north to the north-west corner of Section 21; thence due east to the north-east corner of Section 24; thence due south to the northern boundary of Lot 514, Group 1; thence due west to the north-west corner of said lot; thence due south to a point on the north bank of the South Thompson River; thence following said bank in a south-westerly direction to the southern boundary of Township 20, Range 14; thence due west to the point of commencement.

POPCUM—November 26th, 1917:

Commencing at a point where the southern boundary of Section 26, Township 2, Range 29, New Westminster District, intersects the eastern boundary of New Westminster District; thence due east to the south-east corner of said section; thence due east four miles; thence due north to the south bank of the Fraser River; thence following said bank of river in a south-westerly direction to the eastern boundary of New Westminster District; thence due south to the point of commencement.

PORT WASHINGTON—August 6th, 1915. Boundaries cancelled June 26th, 1917, and territory formerly embraced within the boundaries of that district now included in the Pender Island School District.

POUCE COUPE—October 5th, 1917:

All that tract of land included in Sections 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 27, 28, 29, 30, Township 78, Range 15; Sections 31, 32, 33, 34, 35, 36, Township 77, Range 15; Sections 35, 36, Township 77, Range 16; Sections 1, 2, 11, 12, 13, 14, 23, 24, 25, 26, Township 78, Range 16; all west of the 6th meridian.

POUCE COUPE, CENTRAL—October 5th, 1917:

All that tract of land included in Sections 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, Township 78, Range 14; Sections 2, 3, 4, 5, 6, Township 79, Range 14; Sections 25, 26, 35, 36, Township 78, Range 15; Sections 1, 2, Township 79, Range 15; all west of 6th meridian.

POUCE COUPE, NORTH—October 5th, 1917:

All that tract of land included in Township 80, Range 14, and in Sections 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, Township 79, Range 14; all west of 6th meridian.

QUALICUM, LITTLE—September 24th, 1917:

Commencing at the north-west corner of Lot 17, Newcastle District, being a point on the sea-shore; thence due south to the northern boundary-line of Lot 78; thence due west to the north-west corner of said Lot 78; thence due south to the south-west corner of said Lot 78; thence due west to the north-west corner of Lot 74; thence following the western boundary-line of Lot 74 to the southern boundary-line of Newcastle District; thence due west to the eastern boundary-line of Alberni District; thence due north to the southern boundary-line of Lot 90; thence due west to the eastern boundary-line of Bowser School District; thence following the eastern boundary-line of Bowser School District in a general north-easterly direction to the sea-shore; thence easterly following the shore-line to the point of commencement.

ROBIN'S RANGE—November 6th, 1917:

Commencing at the north-west corner of the North-east Quarter of Section 8, Township 19, Range 15, being a point in the Kamloops Division of Yale District; thence due east to the north-west corner of L.S. 15 of Section 12, Township 19, Range 15; thence due south 20 chains and east 20 chains to the south-east corner of said L.S.; thence due south to the south-west corner of L.S. 1 of said section; thence due east to the eastern boundary of Township 19, Range 15; thence due south to the northern boundary of Township 18, Range 15; thence due east to the eastern boundary of Township 18, Range 15; thence due south three miles, west six miles, and north three miles to the southern boundary of Township 19, Range 15; thence due east to the south-west corner of the South-east Quarter of Section 5, Township 19, Range 15; thence due north to the point of commencement.

ROOSVILLE—June 12th, 1917:

Commencing at the north-west corner of Lot 7012, Kootenay District; thence east to a point due north of the north-east corner of Sub-lot 45; thence south to the south-east corner of said sub-lot; thence south to a point on the International Boundary due south of said south-east corner of Sub-lot 45; thence west along said International Boundary to the south-east corner of Indian Reserve No. 2; thence north, west, and north along the eastern boundary of said Indian reserve to the point of commencement.

SALMON BENCH—November 19th, 1917:

Commencing at the north-west corner of the North-east Quarter of Section 23, Township 18, Range 11, Kamloops Division of Yale District; thence due east to the north-east corner of the North-east Quarter of Section 19, Township 18, Range 10; thence due south half a mile, due west a quarter of a mile, due south half a mile, due west a quarter of a mile, due south half a mile, due east half a mile, due south half a mile, due west half a mile, due south two miles, due west two miles; and thence due north to the point of commencement.

SASKATOON CREEK—October 5th, 1917:

All that tract of land included in Sections 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, Township 79, Range 15; Sections 31, 32, 33, 34, Township 78, Range 15; all west of 6th meridian.

SISTERS CREEK—June 6th, 1917:

Commencing at the north-east corner of Lot 7273, being a point on the Fraser River, Cariboo District; thence due west to the north-west corner of said lot; thence due south and following the western boundaries of Lots 7273, 7272, 7271 to the south-west corner of Lot 7271; thence due east to the north-west corner of Lot 1611; thence due south to the

south-west corner of said lot; thence due east to the north-west corner of Lot 1612; thence due south to the south-west corner of said lot; thence due west to the north-west corner of Lot 7268; thence due south to the south-west corner of said lot; thence due east to the north-west corner of Lot 7269; thence due south and following the western boundary of Lots 7269, 7270 to the northern bank of Deserter's Creek; thence following the northern bank of said creek to a point where it enters the Fraser River; thence following the meanderings of the said river and in a southerly direction to the south-west corner of Lot 4520; thence due east along the southern boundary of Lots 4520, 1919 to the south-east corner of Lot 1919; thence due north to the north-west corner of Lot 4523; thence due east along the northern boundary of Lots 4523, 191 to the north-east corner of Lot 191; thence due south to the south-east corner of said lot; thence east along the southern boundary of Lots 5048, 5041, 5042 to the south-east corner of Lot 5042; thence due north and following the eastern boundary of Lots 5042, 5044 to a point due east of the north-east corner of Lot 193; thence due west to the north-west corner of said lot; thence due south to the north-east corner of Lot 3961; thence due west along the northern boundary of Lots 3961 and 3960 to the north-west corner of Lot 3960; thence due north to the north-east corner of Lot 490; thence due west to the north-west corner of said lot; thence due south to the north-east corner of Lot 4957; thence due west to the Fraser River; thence in a northerly direction and following the east bank of the said river to a point opposite the point of commencement.

SUNNYSIDE No. 2—November 19th, 1917:

Commencing at the north-west corner of Section 20, Township 39, Range 7, west of the Coast meridian; thence south and following the western boundary-line of Section 20 to a point of intersection with the northern boundary-line of Lot 269; thence easterly and following the northern boundary-line of Lot 269 to the north-east corner of Lot 269; thence south and following the eastern boundary-line of Lot 269 to a point of intersection with the southern boundary-line of Section 20; thence easterly and following the southern boundary-line of Section 20 to the south-east corner of Section 20; thence south and following the eastern boundary-line of Section 17 to a point of intersection with the northern boundary-line of Lot 227; thence east and following the northern boundary-line of Lot 227 to the north-east corner of Lot 227; thence south and following the eastern boundary-line of Lot 227 to the south-west corner of Lot 228; thence east and following the southern boundary-line of Lot 228 a distance of 23.45 chains; thence in a northerly direction 34.68 chains to a point of intersection with the northern boundary-line of Lot 228; thence east and following the northern boundary-line of Lot 228 a distance of 8.5 chains; thence due north a distance of 49.02 chains; thence due west to a point of intersection with the eastern boundary-line of Section 20 a distance of 39.99 chains; thence north and following the eastern boundary-line of Section 20 to the north-east corner of Section 20; thence due west and following the northern boundary-line of Section 20 to the point of commencement.

VAVENBY—December 3rd, 1917:

All that tract of land comprised in the following lots of the Kamloops Division of Yale District, namely: Lots 3864, 3865, 3866, 2578, 2643, 753, 2567, 2572, 749L, 748A, 2566, 2569, 2577, 1704, 2574, 2568, 2571, 3868, 1705, 2576, 2575, 2570, 3898, 1706, 2841, 2598, 2597, 750, 3064, 1708, 1709, 2591, 1699, 3897, 1701, 1707, 1699, 2592, 2596, 2595, 1700, 1698, 2590, 2581, 2582, 2583, 2584, 2599, 2586, 2585, 2587, 2588, 2589.

WATMORE—July 28th, 1909. Boundaries altered and redefined September 10th, 1917, and November 6th, 1917:

Commencing at a point where the southern boundary of Lot 512, Group 1, Kamloops Division of Yale District, meets the south bank of the South Thompson River; thence following the boundaries of said lot in an easterly and north-easterly direction to the point of intersection with the northern boundary of Section 12, Township 20, Range 14; thence due east to the middle point of the southern boundary of Section 15, Township 20, Range 13; thence due north to the middle point of the northern boundary of Section 27 of said township; thence due west to the south-eastern boundary of Neskainlith Indian Reserve No. 2; thence following the boundaries of said reserve south-west and north-west to the south bank

of the South Thompson River; thence in a westerly direction to the north-east corner of Lot 524, Group 1, Kamloops Land District; thence following the northern boundaries of said lot to its north-west corner; thence due south to the northern boundary of Section 29, Township 20, Range 13; thence due west to the north-west corner of Section 30; thence due south to the northern boundary of Lot 514, Group 1, Kamloops Land District; thence due west to the north-west corner of said lot; thence due south to the south bank of the South Thompson River; thence following the south bank of said river in a south-westerly direction to the point of commencement.

AMENDMENTS TO THE "PUBLIC SCHOOLS ACT."

Since the publication of the latest edition of the Manual of School Law, the following amendments were made to the "Public Schools Act":—

Section 8 is amended by striking out all the words in clause (*k*) of said section, and inserting in lieu thereof the following:—

"(*k*.) To close schools where the average attendance falls below eight in regularly organized school districts, or below six in assisted schools."

Section 15 is repealed, and the following is substituted therefor:—

"15. (1.) In cases where the attendance at any public school in a municipal school district is made up partly of pupils residing in another municipality, the municipal corporation of the municipality whence such non-resident pupils attend shall contribute to the support of the school a per capita grant for each of such non-resident pupils based upon the proportion which the cost of each pupil in attendance bears to the total cost of maintaining the school; such per capita grant to be paid annually to the municipal corporation of the municipality in which the school is situated.

"(2.) The municipal corporation of any municipality in which adequate school accommodation has been provided for the resident children shall not be liable for any contribution to the support of a school situated in another municipality on account of the attendance of non-resident pupils."

The Act is also amended by inserting therein after section 95 thereof the following section:—

"95A. Whenever the Board of School Trustees of any district municipality school district decide to unite two or more schools in that district for the purpose of establishing a central graded school, with at least two teachers, and of providing for the conveyance to and from such school of the children living at a considerable distance therefrom, there shall be granted from the Provincial Treasury to the Board of School Trustees of that district a sum not exceeding one-half of the total expense incurred on account of such conveyance."

NEW TEXT-BOOKS.

The Council of Public Instruction has been pleased to prescribe the following books for use in the public schools of the Province:—

The "Song Reader," Canadian Edition, published by Ginn and Company.

The following numbers of "The Highroads of Literature" as Supplementary Readers, namely: The Introductory Book and Books One, Two, Three, and Four.

For the use of Commercial classes in the high schools: New Method Arithmetic, published by the Commercial Text Book Co., Toronto; Book-keeping, Single and Double Entry, published by the Commercial Text Book Co., Toronto; Century Edition of Isaac Pitman's Shorthand.

Siepmann's French Course, Part 1, has been added to the list of text-books prescribed for use in the high schools.

An alternative course of study in French for the first and the second years of the High School Course has been authorized.

I have the honour to be,
Sir,
Your obedient servant,

ALEXANDER ROBINSON,
Superintendent of Education.

PART II.

STATISTICAL RETURNS.

TABLE A.—Attendance of Students at *High Schools*, Details of Management, &c., 1916-1917.

HIGH SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of students between 6 and 16 who attended the school during the year.	No. of students of other ages who attended the school during the year.	Total number of students of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the students enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total number of visits to school.
Agassiz	200	191	7	11	18	10	8	2569	13.45	.....	Yes.	3	14	153	170
Total, 1915-1916	.....	.....	12	9	21	10	11	3282	16.96						
Armstrong, 1st Division	200	199	3	26	29	9	20	4566	22.94	224	No.	2	3	.....	5
" 2nd "	200	199	10	11	21	8	13	3444	17.30	150	"	2	3	.....	5
Total, 1915-1916	.....	.....	13	37	50	17	33	8010	40.24						
			15	43	58	25	33	8834½	45.16						
Bridgeport, 1st Division	200	199	6	9	15	4	11	2677	13.45	154	Yes.	2	15	46	63
" 2nd "	200	199	3	13	16	6	10	2372½	11.92	115	"	2	14	45	61
" 3rd "	200	199	9	9	18	7	11	2653½	13.33	115	"	2	11	45	58
Total, 1915-1916	.....	.....	18	31	49	17	32	7703	38.70						
			25	30	55	22	33	8072½	39.36						
Chilliwack, 1st Division	200	198	1	16	17		10	3059½	15.45	30	"	2	7	4	13
" 2nd "	200	198	9	31	40	19	21	6732½	34.00	74	"	2	5	14	21
" 3rd "	200	193	22	22	44	19	25	7363½	38.15	80	"	2	5	14	21
Total, 1915-1916	.....	.....	32	69	101	45	56	17155½	87.60						
			43	80	123	64	59	20813½	102.73						
Cranbrook	200	191	13	14	27	11	16	3885	20.34	84	No.	2	11	12	25
Total, 1915-1916	.....	.....	16	13	29	10	19	4189	20.33						
Cumberland, 1st Division	200	198	5	14	19	6	13	3564	18.00	102	"	2	.....	2	4
" 2nd "	117	117	14	6	20	11	9	2165½	18.50	59	"	1	5	1	7
Total, 1915-1916	.....	.....	19	20	39	17	22	5729½	36.50						
			9	18	27	6	21	5025½	25.19						
Duncan	200	197½	14	13	27	12	15	4347	22.01	236	Yes.	2	8	5	15
Total, 1915-1916	.....	.....	8	26	34	22	12	4989½	24.33						

Enderby	200	191	16	10	26	12	14	3974	20.80	.....	Yes.	2	.....	.....	2
Total, 1915-1916	.....	....	9	21	30	16	14	3940	19.50						
Esquimalt, 1st Division	200	200	10	12	22	11	11	3440½	17.20	71	"	2	11	1	14
" 2nd "	200	195	5	1	6	3	3	1014	5.20	27	No.	2	11	2	15
			15	13	28	14	14	4454½	22.40						
Total, 1915-1916	.....	.....	21	8	29	14	15	4360½	22.07						
Fernie, 1st Division	200	199	1	20	21	14	7	3560½	17.89	.....	"	2	10	103	115
" 2nd "	200	196	9	9	18	8	10	2900½	14.79	78	"	2	6	103	111
			10	29	39	22	17	6461	32.68						
Total, 1915-1916	.....	.....	14	22	36	22	14	5712	28.70						
Golden	200	200	9	17	26	6	20	3215½	16.07	172	Yes.	1	7	4	12
Total, 1915-1916	.....	.....	10	9	19	6	13	3060	15.00						
Grand Forks, 1st Division	200	199	6	21	27	13	14	4804½	24.14	230	No.	2	7	.....	9
" 2nd "	200	194	12	10	22	7	15	3973	20.47	218	"	2	11	2	15
			18	31	49	20	29	8777½	44.61						
Total, 1915-1916	.....	.....	27	26	53	25	28	7661½	38.68						
Greenwood	200	187	7	9	16	7	9	2709	14.48	44	Yes.	1	.....	.....	1
Kamloops, 1st Division	200	185	1	7	8	4	4	1374	7.42	27	No.	2	7	32	41
" 2nd "	200	185	7	20	27	8	19	4446	24.03	76	"	2	4	27	33
" 3rd "	200	185	15	15	30	16	14	4584½	24.78	100	"	2	4	16	22
			23	42	65	28	37	10404½	56.23						
Total, 1915-1916	.....	.....	35	37	72	29	43	11072½	56.34						
Kaslo, 1st Division	200	199½	8	14	22	10	12	3969½	19.89	.....	Yes.	1	11	6	18
" 2nd "	200	199½	5	14	19	5	14	2903	14.55	.....	"	1	11	6	18
			13	28	41	15	26	6872½	34.44						
Total, 1915-1916	....	.....	21	23	44	20	24	5596	37.10						
Kelowna, 1st Division	200	200	4	21	25	8	17	4615	23.07	.....	No.	1	10	3	14
" 2nd "	200	200	16	8	24	14	10	3443½	17.21	.....	Yes.	1	7	1	9
			20	29	49	22	27	8058½	40.28						
Total, 1915-1916	.....	.....	18	44	62	35	27	10057½	49.32						
Ladner, 1st Division	200	200	1	16	17	5	12	2667½	13.33	39	No.	2	10	7	19
" 2nd "	200	196	10	9	19	9	10	3057	15.59	65	"	2	9	8	19
			11	25	36	14	22	5724½	28.92						
Total, 1915-1916	.....	.....	7	22	29	11	18	4665	22.63						
Ladysmith, 1st Division	200	186½	8	24	32	12	20	4805½	25.76	159	Yes.	2	2	2	6
" 2nd "	200	181½	8	13	21	12	9	3047½	16.79	107	"	2	2	2	6
			16	37	53	24	29	7853	42.55						
Total, 1915-1916	.....	.....	18	30	48	20	28	8047½	39.70						

TABLE A.—Attendance of Students at *High Schools*, Details of Management, &c., 1916-1917.—*Continued.*

High Schools.	No. of prescribed school days.	No. of days school was in session.	No. of students between 6 and 16 who attended the school during the year.	No. of students of other ages who attended the school during the year.	Total number of students of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the students enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total number of visits to school.
Matsqui, 1st Division	200	189	7	8	15	7	8	2559	13.53	.....	No.	2	12	.....	14
" 2nd "	155	145	9	4	13	6	7	1787½	12.50	.....	"	1	9	2	12
Total, 1915-1916	.....	.....	16	12	28	13	15	4346½	26.03						
	.....	.....	9	11	20	8	12	3167	16.07						
Mission, 1st Division	200	197½	4	22	26	10	16	3757½	19.02	209	Yes.	2	3	5	10
" 2nd "	200	192½	12	7	19	8	11	3013½	15.65	169	"	2	1	7	10
Total, 1915-1916	.....	.....	16	29	45	18	27	6771	34.67						
	.....	.....	17	33	50	30	20	8005	39.71						
Nanaimo, 1st Division	200	200	.....	16	16	6	10	2559	12.79	28	No.	3	11	24	38
" 2nd "	200	199	11	29	40	12	28	6324½	31.78	99	Yes.	2	12	23	37
" 3rd "	200	194	13	17	30	12	18	4744½	24.45	53	No.	2	8	22	32
" 4th "	200	194	15	12	27	15	12	4457	22.97	49	Yes.	2	10	5	17
Total, 1915-1916	.....	.....	39	74	113	45	68	18085	91.99						
	.....	.....	37	61	98	36	62	15868	80.33						
Nelson, 1st Division	200	198	1	21	22	3	19	3246	16.39	54	No.	2	2	8	12
" 2nd "	200	198	12	17	29	.....	29	4664½	23.55	102	"	2	1	1	4
" 3rd "	200	198	19	15	34	24	10	4419	22.31	72	"	2	1	1	4
" 4th "	200	193	29	11	40	21	19	5473	28.35	92	Yes.	2	1	.....	3
" 5th "	200	193	26	8	34	17	17	5005	25.93	75	No.	2	.....	4	6
Total, 1915-1916	.....	.....	87	72	159	65	94	22807½	116.53						
	.....	.....	55	81	136	54	82	22404	110.87						
New Westminster, 1st Division	200	194	.....	14	14	7	7	2351	12.11	38	Yes.	3	8	4	15
" 2nd "	200	194	.....	30	30	12	18	4895½	25.23	56	"	3	8	20	31
" 3rd "	200	194	1	22	23	10	13	3684	18.98	68	"	1	3	.....	4
" 4th "	200	194	9	30	39	16	23	6198	31.94	99	"	2	6	3	11
" 5th "	200	194	6	37	43	21	22	6392½	32.95	104	"	2	4	2	8
" 6th "	200	194	8	19	27	11	16	4762½	24.54	79	No.	3	3	.....	6
" 7th "	200	189	26	8	34	11	23	5920	31.32	103	Yes.	1	5	.....	6
" 8th "	200	189	18	17	35	13	22	5670½	30.00	95	"	1	3	.....	4
" 9th "	200	189	18	15	33	15	18	5146	27.22	89	"	1	3	3	7

New Westminster, 10th Division	200	194	.....	22	22	9	13	2520	12.98	42	Yes.	2	4	.....	6
" 11th "	200	189	14	17	31	17	14	4622½	24.45	81	"	2	3	.....	5
			100	231	831	142	189	52162½	271.72						
Total, 1915-1916	.....	.....	116	218	334	164	170	54525½	269.70						
Oak Bay, 1st Division	200	200	3	23	26	10	16	3606	18.03	39	"	2	99	777	878
" 2nd "	200	200	18	3	21	9	12	3647½	18.23	38	No.	2	.....	.....	2
			21	26	47	19	28	7253½	36.26						
Total, 1915-1916	.....	.....	20	25	45	28	17	6792	34.07						
Peachland	200	200	9	5	14	8	6	1685½	8.42	68	Yes.	3	39	9	51
Total, 1915-1916	.....	.....	2	11	13	8	5	1441	7.58						
Penticton, 1st Division	200	201	5	21	26	8	18	3229½	16.06	97	.....	2	.....	9	11
" 2nd "	200	201	19	11	30	10	20	4682½	23.29	240	Yes.	2	.....	2	4
			24	32	56	18	38	7912	39.35						
Total, 1915-1916	.....	.....	19	29	48	17	31	6537½	32.52						
Point Grey, 1st Division	200	185½	3	24	27	8	19	4352½	23.09	78	"	1	8	2	11
" 2nd "	200	188½	10	19	29	17	12	4854	25.75	85	"	2	6	3	11
" 3rd "	200	183½	16	8	24	18	6	3422½	18.65	99	"	1	9	1	11
" 4th "	200	183½	12	8	20	11	9	3400	18.52	99	"	2	7	2	11
" 5th "	200	183½	15	13	28	16	12	4347½	23.69	79	"	2	7	1	10
			56	72	128	70	58	20376½	109.70						
Total, 1915-1916	.....	.....	50	71	121	66	55	21090	104.02						
Port Alberni	200	196½	9	16	25	8	17	3573	18.18	155	"	3	10	11	24
Total, 1915-1916	.....	.....	25	2	27	15	12	4021	20.94						
Prince Rupert, 1st Division	200	198	8	8	16	7	9	2490	12.57	100	No.	2	7	2	11
" 2nd "	200	198	2	14	16	8	8	2925½	14.77	170	"	2	6	19	27
" 3rd "	200	198	1	4	5	3	2	965½	4.87	53	"	2	6	19	27
			11	26	37	18	19	6381	32.21						
Total, 1915-1916	.....	.....	21	13	34	16	18	5742½	28.00						
Revelstoke, 1st Division	200	199	7	19	26	11	15	4507½	22.65	99	Yes.	2	12	2	16
" 2nd "	200	199	13	18	31	10	21	5345	26.85	142	"	2	7	.....	9
" 3rd "	200	199	4	8	12	6	6	2011½	10.10	50	No.	2	5	5	12
			24	45	69	27	42	11864	59.60						
Total, 1915-1916	.....	.....	19	51	70	34	36	11164	54.47						
Rossland, 1st Division	200	191	.....	11	11	3	8	1606	8.40	90	"	2	3	3	8
" 2nd "	200	191	10	13	23	12	11	3509	18.37	23	"	2	3	2	7
" 3rd "	200	186	12	7	19	5	14	2644½	14.21	150	"	2	3	1	6
			22	31	53	20	33	7759½	40.98						
Total, 1915-1916	.....	.....	29	32	61	27	34	10037½	49.53						
Salmon Arm	200	200	9	16	25	9	16	4069½	20.34	10	Yes.	2	.....	7	9
Total, 1915-1916	.....	.....	6	17	23	10	13	3485	17.64						

TABLE A.—Attendance of Students at *High Schools*, Details of Management, &c., 1916-1917.—*Continued.*

HIGH SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of students between 6 and 16 who attended the school during the year.	No. of students of other ages who attended the school during the year.	Total number of students of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the students enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total number of visits to school.
Summerland, 1st Division	200	195	8	3	11	6	5	2068½	10.60	.....	No.	2	2	2	6
" 2nd "	200	195	2	21	23	5	18	3310½	16.97	.....	"	2	2	1	5
			10	24	34	11	23	5379	27.57						
Total, 1915-1916	.....	.....	20	20	40	16	24	6118½	30.04						
Trail, 1st Division	200	200	6	13	19	8	11	3406	17.03	.....	Yes.	2	1	1	4
" 2nd "	117	112	18	5	23	11	12	2036	18.17	.....	"	1	.....	.....	1
			24	18	42	19	23	5442	35.20	.....					
Total, 1915-1916	.....	.....	11	16	27	9	18	3468	16.87						
Vancouver:															
Britannia, 1st Division	200	193½	3	23	26	11	15	4103	21.20	70	"	2	5	4	11
" 2nd "	200	193½	5	27	32	15	17	5542	28.64	94	"	1	1	2	4
" 3rd "	200	193½	6	34	40	18	22	6925½	35.79	115	"	1	.....	2	3
" 4th "	200	193½	16	23	39	18	21	6809	35.18	115	.....	1	1	2	4
" 5th "	200	193½	9	27	36	15	21	6070½	31.37	101	Yes.	1	1	2	4
" 6th "	200	193½	5	34	39	16	23	5478½	28.31	83	"	2	1	5	8
" 7th "	200	188½	15	26	41	14	27	6887	36.53	117	"	1	.....	2	3
" 8th "	200	188½	28	14	42	21	21	6004	31.85	105	"	2	2	2	6
" 9th "	200	188½	20	13	33	14	19	5542	29.40	.....	"	1	1	2	4
" 10th "	200	188½	21	13	34	12	22	5784½	30.68	97	"	1	.....	2	3
" 11th "	200	188½	17	14	31	12	19	5309½	28.16	92	.....	1	.....	2	3
" 12th "	200	188½	17	31	48	35	13	6267	32.71	114	No.	2	1	1	4
" 13th "	200	188½	16	26	42	.....	42	6232	33.06	110	Yes.	2	2	1	5
			178	305	483	201	282	76954½	402.88						
Total, 1915-1916	.....	.....	195	270	465	239	226	77217½	379.59						
King Edward, 1st Division	200	193½	8	27	35	14	21	6127	31.66	104	"	2	.....	4	6
" 2nd "	200	193½	4	33	37	15	22	6075	31.39	95	"	2	.....	2	4
" 3rd "	200	193½	3	37	40	20	20	6003	31.02	100	"	2	.....	1	3
" 4th "	200	193½	1	14	15	8	7	1668½	8.62	16	No.	2	.....	2	4
" 5th "	200	193½	7	33	40	19	21	6082	31.43	106	Yes.	2	.....	4	6
" 6th "	200	193½	21	20	41	18	23	6090	31.47	100	"	2	.....	5	7
" 7th "	200	193½	10	30	40	16	24	6328	32.70	108	No.	2	.....	1	3
" 8th "	200	193½	23	17	40	20	20	5988½	30.94	89	Yes.	2	.....	2	4
" 9th "	200	193½	12	26	38	12	26	6122	31.63	103	No.	2	.....	2	4
" 10th "	200	193½	8	27	35	13	22	5840½	30.18	99	"	2	.....	2	4

King Edward, 11th Division	200	193½	9	29	38	18	20	6163½	31.85	69	No.	2	.....	2	4
" 12th "	200	193½	15	42	57	23	34	7835	40.49	140	"	2	.....	3	5
" 13th "	200	188½	25	15	40	17	23	6807½	36.11	117	Yes.	2	.....	2	4
" 14th "	200	188½	15	26	41	16	25	6019½	31.93	106	"	2	1	2	5
" 15th "	200	188½	26	13	39	16	23	6251	33.16	103	"	2	.....	2	4
" 16th "	200	188½	20	19	39	15	24	6132½	32 53	137	"	2	....	1	3
" 17th "	200	188½	24	14	38	16	22	6648½	35.27	115	"	2	.....	2	4
" 18th "	200	188½	26	14	40	18	22	6350	33.68	101	No.	2	.....	2	4
" 19th "	200	188½	21	16	37	17	20	6204	32.91	106	"	2	.....	2	4
" 20th "	200	188½	32	9	41	17	24	6203½	32.90	101	Yes.	2	....	2	4
" 21st "	200	188½	16	24	40	14	26	5922	31.41	135	"	2	.....	5	7
" 22nd "	200	188½	11	26	37	14	23	5447	28.89	126	"	2	.....	2	4
" 23rd "	200	188½	24	15	39	17	22	5563	29.51	93	No.	2	.....	2	4
" 24th "	200	188½	44	11	55	55	.....	9568	50.75	202	Yes.	2	5	2	9
			405	537	942	428	514	147439½	772.43						
Total, 1915-1916	.....	.....	282	622	904	438	466	147918	731.10						
King George, 1st Division	200	193½	4	25	29	17	12	4945	25.55	79	No.	2	1	9	12
" 2nd "	200	193½	3	25	28	11	17	4359	22.52	68	"	2	1	2	5
" 3rd "	200	193½	16	26	42	20	22	6508	33.63	106	Yes.	2	1	2	5
" 4th "	200	193½	2	31	33	9	24	5719½	29.55	94	"	2	1	2	5
" 5th "	200	193½	4	30	34	15	19	4996½	25.82	87	No.	2	1	5	8
" 6th "	200	188½	30	10	40	18	22	6889	36.54	153	"	2	1	3	6
" 7th "	200	188½	25	15	40	21	19	6896½	36.58	157	Yes.	2	.....	3	5
" 8th "	200	188½	19	11	30	13	17	6432½	34.12	143	"	2	1	2	5
" 9th "	200	188½	26	16	42	18	24	6430½	34.11	115	No.	2	1	2	5
" 10th "	117	110½	18	8	26	16	10	2657	24.04	39	"	2	.....	3	5
			147	197	344	158	186	55833½	302.46						
Total, 1915-1916	.....	.....	139	150	289	132	157	49501½	244.78						
Vancouver, North, 1st Division	200	198½	3	17	20	7	13	3517½	17.72	56	No.	2	6	.....	8
" " 2nd "	200	198½	20	7	27	11	16	4538½	22.86	75	"	2	7	1	10
" " 3rd "	200	193½	28	12	40	11	29	5511	28.48	97	Yes.	2	9	1	12
" " 4th "	200	193½	12	5	17	6	11	2430	12.55	38	No.	1	7	1	9
			63	41	104	35	69	15997	81.61						
Total, 1915-1916	.....	.....	56	77	133	70	63	17338½	88.82						
Vancouver, South, 1st Division	200	194½	1	28	29	9	20	5208½	26.77	54	"	2	5	....	7
" " 2nd "	200	194½	3	25	28	15	13	5028½	25.85	54	"	2	5	.....	7
" " 3rd "	200	194½	6	19	25	7	18	4155	21.36	44	"	2	5	.....	7
" " 4th "	200	194½	21	13	34	12	22	5710½	29.35	62	"	2	5	....	7
" " 5th "	200	194½	12	11	23	7	16	3797½	19.52	41	"	2	5	.....	7
" " 6th "	200	189½	35	7	42	21	21	7034	39.11	78	"	2	5	.....	7
" " 7th "	200	189½	23	9	32	15	17	5423	28.61	59	"	1	5	.....	6
" " 8th "	200	189½	22	16	38	17	21	6129	32.34	65	"	1	5	.....	6
" " 9th "	200	189½	20	12	32	17	15	4579	24.16	50	Yes.	1	5	.....	6
			143	140	283	120	163	47065	247.07						
Total, 1915-1916	.....	.....	126	185	311	138	173	50232	266.06						
Vernon, 1st Division	200	192½	1	25	26	11	15	3251	16.88	108	No.	2	7	.....	9
" 2nd "	200	186	29	6	35	10	25	5285½	28.41	174	"	2	4	.....	6
			30	31	61	21	40	8536½	45.29						
Total, 1915-1916	.....	.....	30	19	49	22	27	7062	34.92						

TABLE A.—Attendance of Students at *High Schools*, Details of Management, &c., 1916-1917.—*Concluded.*

HIGH SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of students between 6 and 16 who attended the school during the year.	No. of students of other ages who attended the school during the year.	Total number of students of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the students enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total number of visits to school.
Victoria, 1st Division	200	200	1	20	21	10	11	3134	15 67	29	No.	2	.....	1	3
" 2nd "	200	200	4	27	31	12	19	5337½	26.68	56	"	1	.....	10	11
" 3rd "	200	200	11	20	31	7	24	5023½	25.11	52	Yes.	1	.....	.....	1
" 4th "	200	200	1	31	32	14	18	5759½	28.79	53	No.	2	2	7	11
" 5th "	200	200	6	26	32	12	20	4864	24.32	54	"	3	.....	2	5
" 6th "	200	200	13	19	32	16	16	5743½	28.71	59	"	2	.....	2	4
" 7th "	200	200	8	22	30	6	24	5519½	27.59	59	"	2	1	1	4
" 8th "	200	200	6	26	32	10	22	5789	28.94	56	"	4	.....	7	11
" 9th "	200	206	7	26	33	12	21	5727	28.63	62	"	2	....	2	4
" 10th "	200	200	4	26	30	11	19	5351½	26.75	56	"	2	.....	1	3
" 11th "	200	200	8	18	26	8	18	4154½	20.77	41	"	4	.....	22	26
" 12th "	200	200	21	9	30	16	14	5504	27.52	56	"	1	.....	2	3
" 13th "	200	200	6	21	27	11	16	4449½	22.24	45	"	1	.....	1	2
" 14th "	200	200	23	8	31	16	15	5541	27.70	56	Yes.	2	.....	1	3
" 15th "	200	200	18	13	31	13	18	5518½	27.59	60	"	2	.....	1	3
" 16th "	200	200	8	21	29	6	23	4906	24.53	52	No.	1	.....	1	2
" 17th "	200	200	15	18	33	20	13	4835	24.17	51	"	2	.....	2	4
" 18th "	200	200	18	15	33	12	21	5245½	26.22	49	"	2	.....	1	3
" 19th "	200	200	17	13	30	18	12	5066½	25.33	54	"	1	.....	2	3
" 20th "	200	196	20	15	35	19	16	4642	23.68	50	"	1	.....	2	3
" 21st "	200	200	10	29	39	25	14	5195½	25.97	53	"	1	.....	1	2
" 22nd "	200	200	15	16	31	14	17	5791½	28.95	56	"	1	.....	2	3
			240	439	679	288	391	113098½	565.86						
Total, 1915-1916			255	448	703	326	377	112417	555.23						
Grand total for *High Schools*, 1916-1917			1957	2884	4841	2074	2767	768696	3998.65						
" " 1915-1916			1847	2923	4770	2260	2510	764932	3815.96						

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Alberni, 1st Division	200	193½	32	.....	32	14	18	5950½	30.75	335	Yes.	3	10	25	38
" 2nd "	200	193½	34	....	34	12	22	5588	28.88	227	"	2	13	26	41
			66	.....	66	26	40	11538½	59.63						
Armstrong, 1st Division	200	199	33	4	37	16	21	5693	28.60	287	No.	3	17	212	232
" 2nd "	200	199	39	.....	39	18	21	5982	30.06	339	Yes.	2	18	200	220
" 3rd "	200	199	38	.....	38	21	17	5900	29.64	335	"	2	17	200	219
" 4th "	200	199	37	.....	37	17	20	6916½	34.75	393	No.	2	7	153	162
" 5th "	200	199	40	.....	40	15	25	6139	30.84	378	Yes.	2	8	251	261
" 6th "	200	199	47	.....	47	27	20	6473½	32.53	431	"	3	11	273	287
			234	4	238	114	124	37104	186.42						
Chilliwack, 1st Division	200	199	23	8	31	16	15	5706	28.64	90	"	3	11	1	15
" 2nd "	200	194	36	1	37	16	21	5519½	28.45	306	"	2	4	5	11
" 3rd "	200	199	42	.....	42	16	26	7254½	36.45	396	"	2	8	.....	10
" 4th "	200	199	45	.....	45	28	17	7797	39.18	380	"	2	5	15	22
" 5th "	200	194	42	.....	42	22	20	7215½	37.18	409	"	2	4	10	16
" 6th "	200	196	35	.....	35	14	21	5645½	28.80	352	"	2	8	25	35
" 7th "	200	198	44	.....	44	26	18	6495	32.80	363	"	2	9	40	51
" 8th "	200	194½	22	.....	22	9	13	4031	20.72	225	"	2	8	36	46
" 9th "	200	194	28	4	32	12	20	4541	23.40	269	"	2	9	55	66
			317	13	330	159	171	54205	275.62						

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Courtenay, 1st Division (Superior)	200	191	9	11	20	7	13	3098	16.22	260	No.	3	15	6	24
" 2nd "	200	183½	32	.....	32	13	19	4988	27.19	335	Yes.	2	10	7	19
" 3rd "	200	183	54	1	55	29	26	6835½	37.35	494	"	2	9	8	19
Cranbrook:			95	12	107	49	58	14921½	80.76						
Central, 1st Division	200	198	28	.....	28	13	15	4917½	24.84	206	"	3	11	18	32
" 2nd "	200	200	40	.....	40	22	18	6690½	33.45	278	"	2	8	13	23
" 3rd "	200	200	40	.....	40	17	23	6963	34.82	342	"	2	7	12	21
" 4th "	200	200	44	.....	44	24	20	6905	34.52	299	"	2	17	15	34
" 5th "	200	200	42	1	43	22	21	8117	40.58	466	"	2	9	13	24
" 6th "	200	199	42	1	43	25	18	7618	38.28	442	"	2	10	15	27
" 7th "	200	198½	46	.....	46	24	22	7287	36.71	436	"	2	7	6	15
" 8th "	200	199	49	.....	49	28	21	7731½	38.85	375	"	2	7	4	13
" 9th "	200	199½	47	.....	47	20	27	7443	37.30	405	"	2	9	14	25
			378	2	380	195	185	63672½	319.35						
Kootenay Orchards	200	195	19	1	20	7	13	3585	18.38	211	"	1	2	3	6
South Ward, 1st Division	200	200	43	.....	43	24	19	6048	30.24	324	"	2	14	30	46
" 2nd "	200	200	33	.....	33	19	14	5592½	27.96	307	"	2	14	5	21
			76	.....	76	43	33	11640½	58.20						
Cumberland, 1st Division	200	198½	30	.....	30	16	14	4488½	22.61	146	No.	2	3	.....	5
" 2nd "	200	198½	29	1	30	13	17	4996½	25.17	.....	Yes.	2	4	2	8
" 3rd "	200	197½	33	.....	33	16	17	5375½	27.21	297	"	2	2	32	36

Cumberland, 4th Division	200	198½	40	.....	40	22	18	6443½	32.47	351	Yes.	3	4	44	51
" 5th "	200	197½	37	1	38	22	16	6474½	32.78	399	"	2	4	28	34
" 6th "	200	198½	39	.....	39	18	21	6492	32.70	403	"	2	2	20	24
" 7th "	200	198½	40	....	40	21	19	6817	34.34	378	"	2	4	32	38
" 8th "	200	198½	44	.....	44	26	18	6768½	34.09	395	"	2	2	26	30
" 9th "	200	197½	48	.....	48	25	23	6877½	34.82	450	"	2	4	36	42
			340	2	342	179	163	54733½	276.19						
Duncan, 1st Division	200	194½	29	.....	29	12	17	4861½	24.99	186	"	5	5	6	16
" 2nd "	200	196½	33	.....	33	13	20	4879½	24.83	275	"	2	3	19	24
" 3rd "	200	199½	33	....	33	14	19	5042	25.20	280	"	2	8	3	13
" 4th "	200	199½	32	.....	32	13	19	5268	26.40	284	"	3	4	7	14
" 5th " (closed)	83	82½	33	.....	33	17	16	2471	29.95	165	"	1	2	.....	3
" 6th "	200	199½	28	.....	28	15	13	4957	24.84	274	"	3	2	75	80
" 7th "	200	199½	27	.....	27	16	11	3776⅓	18.92	207	"	2	7	39	48
			215	.....	215	100	115	31255½	175.13						
Enderby, 1st Division	200	195	31	8	39	19	20	6526½	33.46	350	"	3	3	2	8
" 2nd "	200	198½	26	.....	26	16	10	5398⅓	27.20	298	"	2	2	6	10
" 3rd "	200	200	39	.....	39	20	19	6593	32.96	355	"	2	2	13	17
" 4th "	200	200	31	.....	31	15	16	4797	23.98	298	"	2	3	24	29
			127	8	135	70	65	23315	117.60						
Fernie, 1st Division	200	200	36	5	41	18	23	6799½	34.00	360	"	3	11	80	94
" 2nd "	200	200	32	.....	32	17	15	5582	27.91	293	No.	4	2	24	30
" 3rd "	200	199	29	1	30	14	16	5254	26.40	283	"	2	2	4	8
" 4th "	200	199	31	.....	31	15	16	5735	28.81	301	Yes.	3	1	3	7
" 5th "	200	199	37	.....	37	22	15	5864½	29.46	352	"	2	3	11	16
" 6th "	200	197	44	.....	44	19	25	7019⅓	35.63	354	"	3	5	31	39
" 7th "	200	199½	42	.....	42	22	20	6801½	34.09	381	No.	2	4	5	11
" 8th "	200	198	42	.....	42	19	23	6141	31.01	352	"	3	.....	6	9
" 9th "	200	200	46	.....	46	25	21	7538	37.69	404	Yes.	2	.....	8	10
" 10th "	200	200	46	.....	46	19	27	7337	36.68	396	"	2	.....	1	3
" 11th "	200	199	41	.....	41	29	12	7479	37.58	416	No.	2	1	12	15
" 12th "	200	200	43	.....	43	19	24	7420½	37.10	411	Yes.	2	3	22	27

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Fernie, 13th Division	200	197	42	.....	42	17	25	7538	38.26	407	Yes.	2	1	4	7
" 14th "	200	200	39	....	39	14	25	7043½	35.22	393	"	2	2	16	20
" 15th "	200	200	47	.....	47	20	27	7304½	36.52	392	"	2	2	10	14
" 16th "	200	200	40	.....	40	23	17	6101½	30.50	341	"	2	5	26	33
" 17th "	200	190	44	.....	44	21	23	6483	34.12	386	"	2	5	11	18
" 18th "	200	200	46	.....	46	24	22	6595	32.98	378	"	2	5	11	18
" 19th "	200	200	43	.....	43	20	23	7157½	35.78	390	"	2	5	3	10
" 20th "	200	200	41	.....	41	23	18	7071	35.35	382	"	2	6	6	14
" 21st "	200	198	42	.....	42	27	15	5219	26.35	289	"	2	5	12	19
			853	6	859	427	432	139484½	701.44						
Grand Forks, 1st Division	200	188	30	7	37	15	22	5883½	31.30	303	No.	2	17	3	22
" 2nd "	200	186½	41	2	43	17	26	6310½	33.83	336	"	2	7	6	15
" 3rd "	200	184	34	.....	34	16	18	5403½	29.37	281	Yes.	3	12	5	20
" 4th "	200	186½	43	.....	43	23	20	6221	33.35	367	"	1	8	1	10
" 5th "	200	185	44	....	44	24	20	6807	36.79	419	"	2	7	20	29
" 6th "	200	190	39	.....	39	21	18	5954	31.33	356	"	1	8	55	64
" 7th "	200	189	39	.....	39	20	19	5564½	29.44	335	"	1	5	9	15
" 8th "	200	185½	36	.....	36	22	14	5878½	31.66	356	"	1	4	10	15
" 9th "	200	186½	47	.....	47	29	18	6615	35.47	190	"	.....	3	14	17
" 10th "	99	99	52	.....	52	25	27	3995½	40.36	438	"	1	6	26	33
			405	9	414	212	202	58633	332.90						

Greenwood, 1st Division	200	195½	24	.....	24	11	13	3874½	19.82	213	No.	2	5	22	29
" 2nd "	200	197½	42	.....	42	26	16	6986½	35.37	381	Yes.	2	2	17	21
" 3rd "	200	192½	36	.....	36	16	20	5521½	28.68	324	"	5	4	15	24
			102	.....	102	53	49	16382½	83 87						
Kamloops, 1st Division	200	190½	23	8	31	11	20	5126½	26.98	291	"	1	10	56	67
" 2nd "	200	190	36	4	40	21	19	6523	34.33	340	No.	1	3	5	9
" 3rd "	200	185	41	.....	41	21	20	6788	36.69	393	"	1	3	40	44
" 4th "	200	185	44	.....	44	22	22	7526	40.68	448	Yes.	1	1	16	18
" 5th "	200	190	51	.....	51	23	28	7197	37.87	418	"	1	3	33	37
" 6th "	200	190	35	.....	35	16	19	6700½	35.26	389	"	1	2	13	16
" 7th "	200	190	55	.....	55	25	30	7582	39.90	439	"	1	3	185	189
" 8th "	200	190	48	.....	48	29	19	7226	38.03	440	"	1	2	177	180
" 9th "	200	190	64	.....	64	33	31	6754½	35.55	426	"	1	2	181	184
" 10th "	200	190	61	.....	61	35	26	6929	36.46	435	"	1	2	57	60
			458	12	470	236	234	68352½	361.75						
Kaslo, 1st Division	200	199	23	6	29	11	18	4060½	20.40	165	No.	3	15	25	43
" 2nd "	200	190½	44	.....	44	16	28	7885½	39.53	425	Yes.	2	13	16	31
" 3rd "	200	198½	50	.....	50	22	28	8241	41.51	443	"	2	12	41	55
" 4th "	200	198½	50	.....	50	30	20	8521½	42.92	464	"	2	10	48	60
			167	6	173	79	94	28708½	144.36						
Kelowna, 1st Division	200	197½	25	6	31	14	17	5711½	25.88	223	"	3	16	33	52
" 2nd "	200	197	34	.....	34	14	20	6005	30.48	285	No.	2	8	33	43
" 3rd "	200	197½	39	.....	39	22	17	7074½	35 82	383	Yes.	2	7	4	13
" 4th "	200	197½	38	.....	38	22	16	6685½	33.85	363	"	2	13	30	45
" 5th "	200	195	40	.....	40	15	25	6444	33.05	308	"	2	12	30	44
" 6th "	200	197	40	.....	40	18	22	6251	31.73	270	"	2	6	2	10
" 7th "	200	195	33	.....	33	15	18	5882	30.16	331	"	2	16	32	50
" 8th "	200	197	35	.....	35	18	17	6304	32.00	361	"	2	18	37	57
" 9th "	200	197	39	.....	39	21	18	7061	35.84	209	"	2	14	35	51
" 10th "	117	117	35	.....	35	15	20	3443½	29.43	.....	No.	1	12	1	14
			358	6	364	174	190	60862	318.24						

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Ladysmith, 1st Division	200	186	27	3	30	17	13	4698	25.25	130	Yes.	2	5	50	57
" 2nd "	200	183	50	.....	50	26	24	7120	38.90	248	"	1	5	8	14
" 3rd "	200	186	44	.....	44	18	26	6595½	35.45	177	"	2	5	42	49
" 4th "	200	186	37	1	38	18	20	6837½	36.76	267	"	2	5	42	49
" 5th "	200	186	47	.....	47	30	17	7901	42.47	402	"	2	3	42	47
" 6th "	200	185	47	.....	47	21	26	8011½	43.30	411	"	2	5	42	49
" 7th "	200	186	48	.....	48	25	23	7496½	40.30	393	"	2	5	43	50
" 8th "	200	186	35	....	35	15	20	6379½	34.29	256	"	2	3	42	47
" 9th "	200	186	43	....	43	17	26	6043	32.48	312	"	2	7	42	51
" 10th "	200	186	45	.....	45	22	23	6494½	34.91	336	"	2	7	42	51
" 11th "	200	186	39	.....	39	17	22	6392	34.40	220	"	2	3	43	48
			462	4	466	226	240	73969	398.51						
Merritt, 1st Division (Superior)	200	195	7	15	22	10	12	3430½	17.59	55	No.	1	26	49	76
" 2nd "	200	194	36	3	39	19	20	5245	27.03	250	Yes.	.....	16	5	21
" 3rd "	200	199	33	.....	33	16	17	5751½	28.90	317	"	.....	15	7	22
" 4th "	200	198½	31	.....	31	17	14	5689	28.65	295	"	.....	13	3	16
" 5th "	200	200	35	....	35	17	18	6075	30.37	309	No.	.....	15	14	29
" 6th "	200	200	41	.....	41	25	16	6257½	31.28	342	Yes.	.....	11	8	19
" 7th "	200	197	31	.....	31	15	16	5619½	28.52	277	"	.....	9	8	17
" 8th "	200	195	31	.....	31	15	16	4858½	24.91	265	"	.....	21	15	36
			245	18	263	134	129	42926½	217.25						

Nanaimo:																
Middle Ward, 1st Division	200	199	40	.....	40	21	19	7757½	38.98	415	Yes.	2	9	6	17
" 2nd "	200	199	39	.....	39	21	18	7646	38.42	423	"	2	8	7	17
" 3rd "	200	199	34	.....	34	19	15	5822½	29.25	334	"	2	6	4	12
" 4th "	200	199	48	.....	48	28	20	7905½	39.72	440	"	2	7	4	13
			161	.....	161	89	72	29131½	146.37						
Quennell, 1st Division	200	199	30	10	40	19	21	6153½	30.92	319	"	2	13	3	18
" 2nd "	200	199	29	3	32	16	16	5961½	29.95	351	"	2	12	4	18
" 3rd "	200	199	35	1	36	20	16	5888	29.58	317	"	2	9	3	14
" 4th "	200	199	46	.....	46	19	27	6780	34.07	356	"	2	10	2	14
" 5th "	200	199	45	.....	45	24	21	7069	35.52	382	"	1	12	.....	13
" 6th "	200	199	57	.....	57	22	35	7408	37.23	373	"	1	9	2	12
" 7th "	200	199	45	.....	45	21	24	7064½	35.50	344	"	2	13	2	17
" 8th "	200	199	51	.....	51	25	26	8278½	41.60	442	"	2	9	.....	11
" 9th "	200	199	48	.....	48	27	21	8373	42.07	438	"	2	10	.....	12
" 10th "	200	199	41	.....	41	26	15	7463	37.50	351	"	3	10	3	16
" 11th "	200	199	43	.....	43	27	16	7343½	36.88	363	"	3	12	1	16
" 12th "	200	199	48	.....	48	25	23	7491	37.64	416	"	2	9	5	16
" 13th "	200	199	47	.....	47	29	18	8717½	43.80	464	"	1	11	8	20
" 14th "	200	199	48	.....	48	25	23	8273½	41.57	496	"	2	11	4	17
" 15th "	200	199	49	.....	49	28	21	7703	38.70	435	"	1	11	2	14
" 16th "	200	199	42	.....	42	11	31	6918	34.76	389	"	2	11	.....	13
" 17th "	200	199	43	.....	43	18	25	7468	37.52	466	"	2	9	7	18
" 18th "	200	199	47	.....	47	31	16	6853½	34.44	381	"	1	13	3	17
			794	14	808	413	395	131207	659.25						
South Ward, 1st Division	200	199	41	.....	41	14	27	6672	33.53	377	"	2	7	4	13
" 2nd "	200	199	41	.....	41	19	22	6674	33.54	362	"	2	7	8	17
" 3rd "	200	199	43	.....	43	25	18	7033½	35.34	350	"	2	7	6	15
			125	.....	125	58	67	20379½	102.41						
Nelson, 1st Division	200	199	34	.....	34	12	22	5960	29.95	153	"	3	4	5	12
" 2nd "	200	199	30	7	37	17	20	6698	33.65	179	"	3	2	10	15
" 3rd "	200	199	31	2	33	14	19	5136	25.80	206	No.	2	2	11	15

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Nelson, 4th Division	200	199	38	.....	38	18	20	6123½	30.77	330	Yes.	2	3	.....	5
" 5th "	200	199	38	.....	38	21	17	6394	32.13	376	"	2	2	18	22
" 6th "	200	198½	38	.....	38	22	16	5772	29.08	331	No.	2	.....	20	22
" 7th "	200	199	34	.....	34	15	19	6135½	30.83	362	Yes.	4	2	13	19
" 8th "	200	199	42	.....	42	21	21	7425	37.31	199	"	2	2	20	24
" 9th "	200	199	36	.....	36	19	17	6737½	33.85	402	"	2	2	22	26
" 10th "	200	198	41	.....	41	25	16	7469½	37.72	362	"	1	.....	16	17
" 11th "	200	199	43	.....	43	26	17	6936½	34.85	353	"	2	.....	.....	2
" 12th "	200	199	40	.....	40	26	14	7679	38.58	417	"	3	2	7	12
" 13th "	200	199	43	.....	43	27	16	7854	39.46	438	"	2	2	21	25
" 14th "	200	199	49	.....	49	28	21	8099	40.69	481	"	2	2	20	24
" 15th "	200	199	54	.....	54	28	26	8700½	43.72	476	"	2	2	24	28
" 16th "	200	199	38	.....	38	19	19	7407½	37.22	408	No.	3	.....	61	64
" 17th "	99	99	40	.....	40	20	20	3573½	36.09	193	Yes.	2	.....	4	6
New Westminster:			669	9	678	358	320	114101	591.70						
F. W. Howay, 1st Division	200	194	38	.....	38	12	26	6907½	35.60	335	"	3	19	32	54
" 2nd "	200	194	33	3	36	15	21	5861½	30.21	317	"	2	6	3	11
" 3rd "	200	194	37	.. ..	37	13	24	7032	36.25	352	"	3	8	25	36
" 4th "	200	194	35	.....	35	11	24	7099½	36.60	391	"	2	11	7	20
" 5th "	200	184	32	.....	32	13	19	6100½	33.15	323	"	2	12	20	34
" 6th "	200	194	49	.....	49	23	26	7526½	38.85	393	"	2	14	6	22

F. W. Howay, 7th Division	200	194	43	.....	43	23	20	6298	32.46	391	Yes.	2	11	10	23
" 8th "	200	194	44	.....	44	19	25	7131½	36.76	405	"	4	14	76	94
" 9th "	200	194	40	....	40	20	20	5975	30.80	347	"	2	9	58	69
" 10th "	200	194	37	.....	37	22	15	5265½	27.14	280	"	2	12	95	109
			388	3	391	171	220	65197½	337.82						
Lord Kelvin, 1st Division	200	194	46	.....	46	21	25	7729	39.84	429	"	3	14	39	56
" 2nd "	200	194	30	.....	30	15	15	5853	30.17	333	"	2	11	5	18
" 3rd "	200	194	37	.....	37	23	14	6924½	35.69	380	"	2	12	11	25
" 4th "	200	194	35	.....	35	15	20	6945	35.79	338	"	3	12	1	16
" 5th "	101	96	28	.....	28	12	16	2311	24.07	129	"	1	7	8	16
" 6th "	200	194	42	.....	42	14	28	6194½	31.93	342	"	2	13	1	16
" 7th "	200	194	51	2	53	30	23	7328	37.77	430	"	2	12	16	30
" 8th "	200	194	44	.....	44	23	21	7750½	39.95	445	"	2	12	12	26
			313	2	315	153	162	51035½	275.21						
Lord Lister, 1st Division	200	194	38	1	39	13	26	7085½	36.52	390	"	3	15	151	169
" 2nd "	200	194	38	4	42	16	26	7095½	36.57	398	"	2	6	151	159
" 3rd "	200	194	39	1	40	21	19	5635½	29.05	321	"	2	10	152	164
" 4th "	200	194	39	.....	39	16	23	5779½	29.78	328	"	2	11	151	164
" 5th "	200	194	37	.....	37	20	17	5537	28.54	306	"	3	13	154	170
" 6th "	200	194	34	.....	34	16	18	6803	35.07	343	"	2	12	150	164
" 7th "	200	194	29	.....	29	14	15	5541	28.56	321	"	2	9	4	15
" 8th "	99	98	37	.....	37	20	17	3310	33.77	185	"	1	4	31	36
			291	6	297	136	161	46787	257.86						
Richard McBride, 1st Division	200	194	28	3	31	14	17	4567	23.54	253	"	2	15	150	167
" 2nd "	200	194	49	.....	49	19	30	7562	38.98	390	No.	2	9	100	111
" 3rd "	200	194	36	....	36	17	19	6485½	33.42	336	Yes.	2	10	197	209
" 4th "	200	194	41	2	43	23	20	6583	33.93	358	"	1	13	175	189
" 5th "	200	194	50	. ....	50	23	27	6676	34.41	381	"	2	15	152	169
" 6th "	200	194	32	.....	32	16	16	5970½	30.77	347	"	2	15	175	192
" 7th "	200	194	45	. ....	45	20	25	6589	33.96	376	"	2	15	176	193
" 8th "	200	194	35	.....	35	18	17	6454	33.26	382	"	2	14	174	190

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
New Westminster.—*Concluded:*															
Richard McBride, 9th Division	200	194	29	.....	29	15	14	4970	25.61	269	Yes.	2	15	175	192
			345	5	350	165	185	55857	287.88						
Queensborough, 1st Division	200	194	44	.....	44	19	25	6538	33.70	376	"	3	11	91	105
" 2nd "	200	194	42	.....	42	22	20	6379	32.88	364	"	3	11	92	106
			86	.....	86	41	45	12917	66.58						
John Robson, 1st Division	200	194	24	9	33	18	15	5927½	30.55	317	"	3	6	10	19
" 2nd "	200	194	37	6	43	24	19	5656	29.10	320	"	3	9	6	18
" 3rd "	200	194	29	.....	29	21	8	5026	25.90	277	"	2	12	5	19
" 4th "	200	194	45	.....	45	20	25	7339	37.83	406	"	2	9	25	36
" 5th "	200	194	35	2	37	25	12	6146	31.68	359	"	2	11	16	29
" 6th "	200	194	32	1	33	19	14	5427½	27.98	303	"	2	11	16	29
" 7th "	300	194	41	.....	41	27	14	7429½	38.29	400	"	2	9	30	41
" 8th "	200	194	22	.....	22	16	6	4013	20.69	229	"	2	10	27	39
" 9th "	200	194	22	.....	22	15	7	4163	21.46	234	"	2	7	38	47
" 10th "	200	194	32	.....	32	16	16	4399	22.68	259	"	2	14	67	83
" 11th "	200	194	18	7	25	19	6	3040	15.67	168	No.	2	10	18	30
			337	25	362	220	142	58566½	301.83						
Herbert Spencer, 1st Division	200	194	26	6	32	11	21	5506	28.38	270	Yes.	5	8	25	38
" 2nd "	200	194	45	.....	45	22	23	6342½	32.69	496	"	2	8	9	19
" 3rd "	200	194	39	.....	39	20	19	7122½	36.71	391	"	3	8	10	21

Herbert Spencer, 4th Division	200	194	49	....	49	22	27	6999½	36.08	397	Yes.	2	9	4	15
" 5th "	200	194	49	.....	49	24	25	7851	40.46	438	"	2	8	20	30
" 6th "	200	194	32	.....	32	16	16	6044	31.15	346	"	2	9	18	29
" 7th "	200	194	40	.....	40	19	21	7153½	36.87	360	"	2	9	48	59
" 8th "	200	194	30	.....	30	18	12	5258	27.10	307	"	2	10	40	52
			310	6	316	152	164	52277	269.44						
Phœnix, 1st Division	200	197	32	.....	32	15	17	5137	26.07	126	"	2	4	3	9
" 2nd "	200	194	33	.....	33	17	16	5873½	30.27	191	"	1	3	.....	4
" 3rd "	200	197½	31	.....	31	15	16	6198½	31.38	376	"	1	3	2	6
" 4th "	200	193½	40	.....	40	21	19	6144½	31.75	385	"	1	3	1	5
" 5th "	200	199	36	.....	36	23	13	6092½	30.61	325	"	1	1	21	23
			172	.....	172	91	81	29446	150.08						
Port Alberni, 1st Division	200	192	25	.....	25	15	10	4196	21.85	274	"	2	5	9	16
" 2nd "	200	189	37	.....	37	19	18	5789	30 63	339	"	2	3	25	35
" 3rd "	200	183½	46	.....	46	25	21	6727½	36.66	354	"	2	10	38	50
Port Coquitlam:			108	.....	108	59	49	16712½	89.14						
Central, 1st Division	200	179½	33	.....	33	19	14	4777½	26.61	295	No.	3	4	10	17
" 2nd "	200	184	30	.....	30	13	17	4383	23.82	262	Yes.	1	5	174	180
" 3rd "	200	183	37	.....	37	16	21	4930½	26.94	258	"	1	5	176	182
" 4th "	200	184	29	.....	29	19	10	3864½	21.00	241	No.	1	5	173	179
			129	.....	129	67	62	17955½	98.37						
James Park, 1st Division	200	179½	32	.....	32	14	18	5175½	28.46	305	Yes.	1	4	57	62
" 2nd "	200	184½	28	1	29	11	18	3843	20.83	232	"	1	4	54	59
			60	1	61	25	36	9018½	49.29						
Port Moody, 1st Division (Superior)	200	194	17	1	18	6	12	2952½	15.21	65	No.	4	4	5	13
" 2nd "	200	196	27	1	28	14	14	4074	20.78	252	Yes.	2	13	370	385
" 3rd "	200	199	36	.....	36	15	21	5348½	26.87	287	"	1	9	69	79
" 4th "	200	199	32	.....	32	21	11	4588½	23.05	259	"	1	9	463	473
" 5th "	200	199	44	....	44	22	22	4547½	22.85	.....	"	1	8	59	68
			156	2	158	78	80	21511	108.76						
Prince George, 1st Division	200	199	15	9	24	5	19	3280½	16.48	205	No.	2	6	3	11
" 2nd "	200	199	44	.....	44	20	24	6751	33.92	367	Yes.	6	9	.....	15

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Prince George, 3rd Division	200	199	43	.....	43	18	25	6774	34.04	385	Yes.	4	5	2	11
" 4th "	200	196½	61	.....	61	31	30	7046½	35.41	498	No.	3	4	3	10
			163	9	172	74	98	23852	119.85						
Prince Rupert, 1st Division	200	198	41	.....	41	15	26	6428	32.46	372	"	5	10	3	18
" 2nd "	200	198	26	1	27	12	15	4270	21.56	231	"	3	9	.....	12
" 3rd "	200	193	37	.....	37	18	19	6588½	34.13	351	Yes.	3	4	....	7
" 4th "	200	198	32	.....	32	15	17	5217½	26.35	284	"	3	3	.....	6
" 5th "	200	198	44	.....	44	24	20	7142½	36.07	387	"	8	3	6	17
" 6th "	200	198	43	.....	43	20	23	6625	33.46	357	"	4	4	.....	8
" 7th "	200	198	29	.....	29	13	16	5154½	26.03	277	"	4	3	15	22
" 8th "	200	198	39	.....	39	15	24	6167½	31.15	392	"	4	6	25	35
" 9th "	200	197½	25	.....	25	16	9	4182	21.11	236	"	1	1	8	10
" 10th "	200	197½	27	1	28	12	16	5144½	26.05	272	No.	3	6	2	11
" 11th "	200	197½	25	.....	25	17	8	4652	23.55	270	Yes.	4	4	2	10
" 12th "	200	197½	19	.....	19	12	7	3636½	18.41	195	"	4	.....	2	6
" 13th "	200	197½	40	.....	40	19	21	6042½	30.59	355	"	4	3	10	17
" 14th "	200	193½	40	.....	40	17	23	6639½	34.31	386	"	4	1	6	11
Revelstoke:			467	2	469	225	244	77890½	395.23						
Central, 1st Division	200	199	29	4	33	17	16	5987½	30.08	402	"	2	38	48	88
" 2nd "	200	199	43	.....	43	29	14	6725½	33.79	371	"	1	9	1	11
" 3rd "	200	194	30	2	32	20	12	6386	32.91	241	"	1	12	1	14
" 4th "	200	199	44	1	45	28	17	7334	36.85	377	"	1	18	76	95

Central, 5th Division	200	199	46	.....	46	33	13	7339	36.87	393	Yes.	1	13	15	29
" 6th "	200	199	31	.....	31	11	20	5098½	25.62	300	"	1	12	19	32
" 7th "	200	194	42	.....	42	20	22	5928½	30.56	286	"	1	13	10	24
			265	7	272	158	114	44799	226.68						
Selkirk, 1st Division	200	199	34	7	41	19	22	7200	36.18	397	"	1	9	2	12
" 2nd "	200	198½	38	.....	38	22	16	6934	34.94	367	"	1	7	.....	8
" 3rd "	200	199	45	.....	45	26	19	7846	39.42	436	"	1	10	1	12
" 4th "	200	199	44	.....	44	16	28	7409	37.23	364	"	2	7	.....	9
" 5th "	200	199	36	.....	36	20	16	7235	36.35	379	"	1	5	.....	6
" 6th "	200	199	41	.....	41	14	27	7620½	38.29	410	"	1	6	7	14
" 7th "	200	199	40	.....	40	23	17	7600½	38.19	411	"	1	3	.....	4
" 8th "	200	199	44	.....	44	22	22	7389	37.15	276	"	1	6	2	9
" 9th "	99	99	33	.....	33	20	13	2961	29.90	31	"	1	5	.....	6
Rossland:			355	7	362	182	180	62195	327.65						
Central, 1st Division	200	186	43	1	44	17	27	7343½	39.48	377	"	2	1	49	52
" 2nd "	200	186	34	2	36	13	23	4726½	25.40	251	No.	1	2	49	52
" 3rd "	200	186	37	.....	37	14	23	6077½	32.67	284	Yes.	2	1	5	8
" 4th "	200	186	39	.....	39	19	20	7084½	38.09	373	"	2	1	3	6
" 5th "	200	186	45	1	46	29	17	7187½	38.61	363	"	2	1	24	27
" 6th "	200	186	45	.....	45	24	21	6973½	37.49	402	"	1	1	10	12
" 7th "	200	186	48	.....	48	21	27	7273½	39.10	392	"	1	1	24	26
" 8th "	200	186	36	.....	36	20	16	6039	32.46	333	"	2	1	16	19
" 9th "	200	186	47	.....	47	24	23	6456½	34.71	361	"	1	1	17	19
" 10th "	200	186	51	.....	51	28	23	7276	39.11	391	"	1	.....	50	51
			425	4	429	209	220	66438	357.12						
Cook Avenue, 1st Division	200	191	35	1	36	16	20	4710	24.66	273	"	1	3	5	9
" 2nd "	200	191	29	1	30	16	14	4991	26.13	305	No.	1	3	37	41
" 3rd "	200	191	37	.....	37	22	15	6148½	32.19	347	Yes.	1	2	37	40
" 4th "	200	191	36	2	38	19	19	5968	31.24	333	"	1	3	2	6
" 5th "	200	191	52	.....	52	24	28	8641½	45.24	498	No.	1	3	80	84
" 6th "	200	191	55	.....	55	27	28	8667½	45.37	561	Yes.	1	.....	27	28
			244	4	248	124	124	39126½	204.83						

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Salmon Arm, 1st Division	200	194	39	2	41	22	19	6190	31.90	356	Yes.	1	10	7	18
" 2nd "	200	188½	39	.....	39	17	22	6788	36.01	354	"	1	6	12	19
" 3rd "	200	196	45	.....	45	21	24	6352	32.41	315	"	1	12	24	37
			123	2	125	60	65	19330	100.32						
Sandon	200	192	52	.....	52	27	25	7142	37.19	362	No.	2	3	15	20
Slocan, 1st Division	200	196	28	.....	28	11	17	5589	28.51	296	Yes.	1	.....	39	40
" 2nd "	200	196½	37	.....	37	18	19	5433½	27.65	304	"	1	.....	36	37
Trail:			65	.....	65	29	36	11022½	56.16						
Central, 1st Division	200	199½	40	.....	40	22	18	5616½	28.15	311	No.	3	5	27	35
" 2nd "	200	199½	47	.....	47	24	23	6532½	32.74	378	Yes.	1	.....	1	2
" 3rd "	200	199½	46	.....	46	27	19	7610	38.14	405	"	1	.....	2	3
" 4th "	200	199½	45	.....	45	16	29	6547½	32.82	389	"	2	2	2	6
" 5th "	200	199½	54	.....	54	24	30	8416½	42.18	511	"	1	.....	1	2
" 6th "	200	199½	44	.....	44	21	23	7341	36.79	400	"	1	.....	1	2
" 7th "	200	199½	49	.....	49	27	22	9560	47.91	535	"	1	.....	.....	1
" 8th "	200	199½	52	.....	52	27	25	9054½	45.38	498	No.	2	1	1	4
" 9th "	200	199½	65	.....	65	32	33	9590	48.07	546	Yes.	1	.....	2	3
" 10th "	117	117	46	.....	46	24	22	4637	39.63	252	"	2	.....	1	3
" 11th "	117	117	40	.....	40	18	22	4168	35.62	241	"	1	.....	.....	1
			528	.....	528	262	266	79073½	427.43						
Smelter Hill	87	86	36	1	37	14	23	2518	29.27	157	"	1	.....	5	6

Vancouver:															
Aberdeen, 1st Division	200	193½	49	.....	49	23	26	6207½	32.07	354	Yes.	2	3	150	155
" 2nd "	200	193½	46	1	47	25	22	7991	41.29	466	"	2	.....	151	153
" 3rd "	200	193½	45	1	46	25	21	8699	44.95	487	"	2	.....	150	152
" 4th "	200	193½	54	.....	54	31	23	7929½	40.97	453	"	2	.....	166	168
" 5th "	200	193½	49	.....	49	31	18	6750	34.88	404	"	2	.....	144	146
" 6th "	200	193	49	.....	49	23	26	7649	39.63	427	"	2	4	148	154
" 7th "	200	193½	45	.....	45	22	23	7174	37.07	428	"	2	.....	141	143
" 8th "	200	193	64	.....	64	41	23	6972½	36.03	407	"	2	.....	159	161
			401	2	403	221	182	59372½	306.89						
Alexandra, 1st Division	200	193½	49	.....	49	19	30	7142	36.90	.....	No.	3	5	4	12
" 2nd "	200	193½	51	4	55	19	36	7709½	39.84	187	Yes.	2	1	5	8
" 3rd "	200	193½	37	1	38	17	21	7026	36.31	379	"	2	4	18	24
" 4th "	200	193½	40	.....	40	22	18	7422½	38.35	405	"	2	.....	22	24
" 5th "	200	193½	44	.....	44	25	19	7425½	38.37	400	"	2	.....	44	46
" 6th "	200	193½	46	....	46	25	21	8288½	42.83	415	"	2	.....	28	30
" 7th "	200	193½	47	.....	47	21	26	8289	42.83	449	"	2	.....	34	36
" 8th "	200	193½	44	.....	44	15	29	7776	40 18	444	"	2	.....	25	27
" 9th "	200	193½	56	.....	56	25	31	9744½	39.50	377	"	1	.....	35	36
" 10th "	200	193½	38	.....	38	20	18	7330½	37.88	139	"	2	.....	49	51
" 11th "	200	193	43	.....	43	20	23	7380½	38.24	190	"	2	.....	89	91
" 12th "	117	115½	34	.....	34	19	15	3424	29.64	31	"	2	.....	16	18
" 13th "	90	97½	48	.....	48	27	21	4111	42.16	238	"	1	.....	20	21
			577	5	582	274	308	93069½	503.03						
Bayview, 1st Division	200	193½	36	.....	36	20	16	6563½	33.91	343	No.	1	1	305	307
" 2nd "	200	193½	37	.....	37	18	19	6608	34.15	356	Yes.	1	.....	313	314
" 3rd "	200	193½	43	.....	43	20	23	6983	36.08	377	"	1	.....	309	310
" 4th "	200	193½	41	.....	41	20	21	6205½	32.06	310	"	1	.....	125	126
" 5th "	200	193½	51	.....	51	24	27	7403	38.25	414	"	1	.....	301	302
" 6th "	200	193	51	.....	51	24	27	7466½	38.68	291	"	1	.....	322	323
			259	.....	259	126	133	41229½	213.13						

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Vancouver.—*Continued:*															
Beaconsfield, 1st Division	200	193½	28	2	30	10	20	4935½	25.50	282	No.	3	1	76	80
" 2nd "	200	192½	45	.....	45	22	23	6330	32.88	382	Yes.	2	.....	22	24
" 3rd "	200	193	44	.....	44	20	24	6319	32.74	368	"	2	.....	77	79
" 4th "	200	193½	32	.....	32	17	15	6310½	32.61	303	"	2	.....	32	34
" 5th "	200	192½	43	.....	43	25	18	6726	34.94	306	"	2	.....	23	25
			192	2	194	94	100	30621	158.67						
Central, 1st Division	200	193½	23	8	31	14	17	5235½	27.05	63	No.	2	1	5	8
" 2nd "	200	193½	45	2	47	20	27	7506	38.79	342	Yes.	1	1	89	91
" 3rd "	200	193½	49	.....	49	26	23	8367½	43.24	455	"	1	1	74	76
" 4th "	200	193½	50	.....	50	21	29	7553	39.03	336	"	1	1	87	89
" 5th "	200	193	47	....	47	26	21	8300	43.00	469	"	1	1	88	90
" 6th "	200	193	50	.....	50	26	24	7644½	39.60	414	"	1	1	106	108
" 7th "	200	193½	51	.....	51	23	28	7865	40.64	399	No.	1	1	123	125
" 8th "	200	193½	41	.....	41	20	21	6697	34.60	356	Yes.	1	.....	87	88
" 9th "	200	193½	53	.....	53	29	24	8020	41.44	.....	"	1	1	85	87
" 10th "	200	193½	43	.....	43	21	22	6826	35.27	.....	"	1	1	102	104
" 11th "	200	193½	34	30	64	64	....	6335½	32.74	88	No.	1	1	3	5
" 12th "	200	183½	9	5	14	10	4	2025	11 03	.....	Yes.	1	3	63	67
" 13th "	200	193½	15	.....	15	11	4	1778	9.18	.....	"	1	2	40	43
" 14th "	155	153½	43	.....	43	27	16	4927	32.09	211	"	1	.....	105	106
			553	45	598	338	260	89080	467.70						

Children's Home, 1st Division	200	192½	27	.....	27	11	16	3223½	16.74	112	Yes.	3	2	14	19
" 2nd "	200	192½	41	3	44	23	21	5782	30.08	215	"	2	4	13	19
" 3rd "	200	192½	41	.....	41	24	17	6933	36.01	398	"	2	4	22	28
" 4th "	200	192½	38	...	38	18	20	5251½	27.28	244	"	2	4	23	29
			147	3	150	76	74	21190	110.06						
Dawson, 1st Division	200	193½	39	3	42	20	22	6913½	35.72	385	"	3	11	22	36
" 2nd "	200	193½	29	12	41	24	17	6465½	33.41	127	No.	4	1	1	6
" 3rd "	200	193½	39	3	42	20	22	6785	35.06	222	"	3	4	3	10
" 4th "	200	193½	45	8	53	26	27	6785½	35.06	378	Yes.	2	1	2	5
" 5th "	200	193½	44	1	45	27	18	6882	35.56	374	"	2	5	17	24
" 6th "	200	193½	42	.....	42	18	24	7139	36.89	371	"	2	1	2	5
" 7th "	200	193½	39	.....	39	22	17	6911	35.71	380	"	2	2	4	8
" 8th "	200	193½	40	.....	40	20	20	7060½	36.48	384	"	2	1	7	10
" 9th "	200	193½	43	1	44	19	25	7621½	39.39	419	"	2	.....	22	24
" 10th "	200	193½	42	1	43	19	24	6956½	35.95	399	"	3	1	9	13
" 11th "	200	193½	48	.....	48	22	26	7535½	38.94	417	"	2	4	7	13
" 12th "	200	193½	42	.....	42	19	23	7519½	38.86	371	"	2	1	3	6
" 13th "	200	193½	41	.....	41	21	20	7442½	38.46	324	"	2	1	16	19
" 14th "	200	193½	39	.....	39	17	22	7043½	36.40	402	"	2	1	19	22
" 15th "	200	193½	40	.....	40	16	24	7414½	38.31	411	"	1	1	19	21
" 16th "	200	193½	52	.....	52	24	28	7985½	41.27	396	"	2	1	15	18
" 17th "	200	193½	48	1	49	27	22	6899	35.65	414	"	2	2	34	38
" 18th "	200	193½	47	.....	47	22	25	7587½	39.21	438	"	2	2	57	61
" 19th "	117	115½	43	.....	43	18	25	4067	35.21	203	"	2	.....	7	9
" 20th "	99	97½	42	.....	42	20	22	3875½	37.74	213	"	1	.....	16	17
" 21st "	99	97½	31	2	33	16	17	2149	22.04	123	"	1	1	3	5
" 22nd "	99	97½	48	.....	48	21	27	3592½	36.85	218	"	1	2	30	33
			923	32	955	458	497	142632½	798.17						
Charles Dickens, 1st Division	200	193½	30	1	31	8	23	5433	28.07	154	No.	2	1	114	117
" 2nd "	200	193½	38	3	41	20	21	7342	37.94	283	Yes.	2	1	27	30
" 3rd "	200	193½	54	.....	54	32	22	9422	48.69	466	"	5	.....	106	111
" 4th "	200	193½	50	.....	50	25	25	8803	45.49	422	"	2	.....	135	137

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Vancouver.—*Continued:*															
Charles Dickens, 5th Division	200	193½	38	.....	38	19	19	7342½	37.94	401	Yes.	2	.....	139	141
" 6th "	200	193½	40	.....	40	24	16	7927½	40.97	441	"	2	.....	101	103
" 7th "	99	97½	32	.....	32	16	16	2825	28.97	.....	"	1	.....	33	34
			282	4	286	144	142	49095	268.07						
Fairview, 1st Division	200	193½	39	9	48	20	28	7994½	41.31	252	No.	3	.....	13	16
" 2nd "	200	193½	35	2	37	22	15	5585	28.86	156	"	3	.....	2	5
" 3rd "	200	193½	36	1	37	29	8	6960	36.00	343	"	2	.....	2	4
" 4th "	200	193½	42	.....	42	22	20	7329½	37.86	390	Yes.	2	.....	13	15
" 5th "	200	193½	50	.....	50	25	25	7099⅔	36.68	323	"	2	.....	8	10
" 6th "	200	193½	50	.....	50	13	37	8567½	44.27	460	"	2	.....	8	10
" 7th "	200	193½	46	.....	46	23	23	7948	41.07	433	"	2	.....	14	16
" 8th "	200	193½	47	.....	47	21	26	8578½	44.33	472	"	2	.....	39	41
" 9th "	200	193½	58	.....	58	33	25	8419⅓	43.51	463	"	1	.....	13	14
" 10th "	200	188½	60	.....	60	29	31	7576	40.18	268	"	2	.....	25	27
" 11th "	200	193½	53	.....	53	24	29	7204½	37.23	354	"	2	.....	30	32
" 12th "	200	193½	50	.....	50	29	21	7037	36.36	252	"	2	.....	30	32
" 13th "	200	193½	44	.....	44	26	18	7723	39.91	416	"	3	1	22	26
" 14th "	200	193½	11	.....	11	10	1	2120	10.95	.....	"	1	.....	1	2
			621	12	633	326	307	100142⅓	518.52						
Franklin, 1st Division	200	193½	27	.....	27	12	15	4509	23.30	206	"	3	4	23	30
" 2nd "	200	193½	37	.....	37	21	16	7073	36.55	387	"	2	3	18	23

Franklin, 3rd Division	200	193½	41	.....	41	17	24	6767	34.97	375	Yes.	2	3	28	33
" 4th "	200	193½	38	.....	38	23	15	5227	27.01	287	"	2	3	29	34
" 5th "	200	193½	41	.....	41	17	24	6568½	33.94	361	"	2	.....	13	15
			184	.....	184	90	94	30144½	155.77						
Simon Fraser, 1st Division	200	193½	22	9	31	15	16	5367½	27.73	236	"	1	.....	7	8
" 2nd "	200	193½	35	1	36	11	25	6216	32.12	202	"	4	.....	1	5
" 3rd "	200	193½	43	.....	43	18	25	7213	37.22	398	"	1	.....	17	18
" 4th "	200	193½	41	....	41	19	22	7518	38.85	416	"	1	.....	18	19
" 5th "	200	193½	39	.....	39	21	18	7232	37.38	409	"	1	.....	10	11
" 6th "	200	193½	40	.....	40	18	22	7358	38.02	420	No.	1	.....	9	10
" 7th "	200	193½	39	.....	39	13	26	7559½	39.06	433	Yes.	2	.....	12	14
" 8th "	200	193	42	....	42	18	24	7594	39.31	433	"	1	.....	17	18
" 9th "	200	193½	38	.....	38	24	14	6846½	35.38	379	"	1	.....	22	23
" 10th "	200	193½	50	.....	50	24	26	7586	39.20	437	"	1	.....	15	16
" 11th "	200	193½	49	.....	49	23	26	7585½	39 20	49	"	1	.....	24	25
" 12th "	99	97	40	.....	40	18	22	3022	31.17	149	"	.....	....	16	16
" 13th "	99	97½	38	.....	38	18	20	3384½	34.71	183	"	1	.....	5	6
			516	10	526	240	286	84482½	469.35						
General Gordon, 1st Division	200	193½	40	1	41	18	23	7327½	37.86	387	No.	3	5	15	23
" 2nd "	200	193½	45	.....	45	23	22	7961½	41.14	425	"	2	1	2	5
" 3rd "	200	193½	41	.....	41	21	20	7445½	38.47	406	Yes.	2	2	30	34
" 4th "	200	193½	52	.....	52	25	27	7550	39.01	418	"	3	1	11	15
" 5th "	200	193½	51	.....	51	25	26	7285	37.64	354	"	2	2	140	144
" 6th "	200	193½	52	.....	52	31	21	8717½	45.05	481	"	2	2	138	142
" 7th "	200	193½	48	.....	48	22	26	7644	39.50	411	"	2	1	138	141
" 8th "	200	193½	42	.....	42	25	17	6865½	35.48	387	"	2	2	147	151
			371	1	372	190	182	60796½	314.15						
Grandview, 1st Division	200	193½	41	.....	41	15	26	6787	34.55	326	No.	2	3	21	26
" 2nd "	200	193½	46	.....	46	24	22	7986	41.27	351	"	1	.....	3	4
" 3rd "	200	193½	39	.....	39	20	19	6343½	32 78	346	Yes.	1	1	17	19
" 4th "	200	193½	46	.....	46	18	28	7521½	38.87	414	"	1	1	13	15
" 5th "	200	193½	46	.....	46	19	27	7542	38.97	377	"	1	.....	13	14

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Vancouver.—*Continued:*															
Grandview, 6th Division	200	193½	42	.....	42	27	15	7552	39.02	405	Yes.	1	.....	12	13
" 7th "	200	193½	45	.....	45	21	24	7943½	41.05	433	"	1	.....	32	33
" 8th "	200	193½	56	.....	56	26	30	8661	44.75	437	"	1	2	11	14
" 9th "	200	193½	51	.....	51	20	31	8067	41.68	411	"	1	.....	10	11
" 10th "	200	193	41	.....	41	23	18	7770	40.26	367	"	1	.....	46	47
" 11th "	99	97½	43	.....	43	19	24	3303½	33.88	213	"	1	.....	17	18
			496	.....	496	232	264	79477	427.08						
Hastings, 1st Division	200	193	31	6	37	19	18	6061	31.40	264	No.	3	.....	24	27
" 2nd "	200	193½	44	2	46	24	22	7205½	37.75	404	"	2	.....	28	30
" 3rd "	200	193½	41	.....	41	20	21	7025½	36.30	387	Yes.	2	.....	30	32
" 4th "	200	193½	42	.....	42	15	27	7234	37.38	388	"	2	.....	51	53
" 5th "	200	193½	44	.....	44	21	23	7833½	40.48	422	"	2	.....	44	46
" 6th "	200	193½	39	.....	39	15	24	7248	37.45	396	No.	2	.....	50	52
" 7th "	200	193	41	.....	41	23	18	7982½	41.36	441	Yes.	2	.....	72	74
" 8th "	200	193½	40	.....	40	19	21	8178½	42.26	445	"	2	.....	46	48
" 9th "	200	193½	42	.....	42	17	25	7509½	38.80	416	"	2	.....	51	53
" 10th "	200	193½	37	1	38	22	16	6721½	34.73	395	"	3	.....	90	93
" 11th "	99	97½	38	.....	38	23	15	3605½	36.97	195	"	1	.....	33	34
			439	9	448	218	230	76605	414.88						
Henry Hudson, 1st Division	200	193½	27	4	31	15	16	5088½	26.29	260	No.	3	5	6	14
2nd "	200	193½	44	1	45	23	22	7240	37.41	366	"	2	1	13	16

Henry Hudson, 3rd Division	200	193½	43	.....	43	22	21	7099½	36.68	386	Yes.	2	4	82	88
" 4th "	200	193½	47	.....	47	21	26	7589	39.21	420	"	1	5	20	26
" 5th "	200	193½	47	.....	47	26	21	7625½	39.40	419	"	2	3	78	83
" 6th "	200	193½	41	.....	41	13	28	7907	40.86	451	"	2	4	105	111
" 7th "	200	193½	45	.....	45	25	20	7490½	38.71	420	"	2	4	104	110
" 8th "	200	193½	39	.....	39	22	17	7085	36.61	446	"	2	4	139	145
" 9th "	200	193½	53	.....	53	32	21	7184½	37.12	435	"	2	4	95	101
" 10th "	200	193½	38	.....	38	24	14	6788	35.08	358	"	2	4	96	102
" 11th "	99	97½	39	.....	39	21	18	3554	36.45	210	"	1	1	76	78
" 12th "	57	46½	35	.....	35	15	20	1456	31.31	70	"	.....	1	25	26
			498	5	503	259	244	76107½	435.13						
Kitsilano, 1st Division	200	193½	44	1	45	21	24	7606	39.30	165	No.	3	4	17	24
" 2nd "	200	193½	26	.....	26	13	13	5645½	29.17	303	"	2	2	6	10
" 3rd "	200	193½	32	.....	32	11	21	6087½	31.45	332	Yes.	2	.....	44	46
" 4th "	200	193½	44	.....	44	21	23	7166	37.03	385	"	2	.....	6	8
" 5th "	200	193½	39	1	40	10	30	7204	37.23	397	"	2	.....	67	69
" 6th "	200	193½	52	.....	52	22	30	8640	44.65	473	"	2	.....	26	28
" 7th "	200	193½	56	.....	56	21	35	8477	43.80	454	"	2	1	62	65
" 8th "	200	193½	45	.....	45	26	19	7212½	37.27	416	"	2	1	28	31
" 9th "	200	193½	49	.....	49	25	24	7294	37.69	415	"	2	2	79	83
" 10th "	117	115½	40	1	41	23	18	3979	34.45	246	"	1	.....	14	15
			427	3	430	193	237	69311½	372.04						
Livingstone, 1st Division	200	193½	35	.....	35	18	17	5717	29.54	318	No.	3	2	9	14
" 2nd "	200	193½	42	3	45	23	22	7551	39.02	379	Yes.	2	1	12	15
" 3rd "	200	193½	40	1	41	19	22	7071½	36.54	411	"	2	3	35	40
" 4th "	200	193½	52	.....	52	27	25	7778	40.19	399	"	2	1	35	38
" 5th "	200	193½	48	.....	48	25	23	8005	41.36	464	"	2	.....	37	39
" 6th "	200	193½	44	.....	44	22	22	7141	36.90	411	"	2	1	20	23
" 7th "	200	193½	45	.....	45	23	22	6502	33.60	382	"	2	2	46	50
" 8th "	99	97½	41	.....	41	24	17	3321	34.06	200	"	1	.....	39	40
			347	4	351	181	170	53086½	291.21						

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Vancouver.—*Continued:*															
Model, 1st Division	200	193½	33	2	35	16	19	6037½	31.20	229	Yes.	2	.....	6	8
" 2nd "	200	193½	34	6	40	24	16	6357½	32.85	306	"	2	.....	10	12
" 3rd "	200	193½	47	....	47	18	29	7906½	40.86	435	"	3	.....	9	12
" 4th "	200	193½	44	.....	44	24	20	7889½	40.77	431	"	4	3	66	73
" 5th "	200	193½	45	.....	45	27	18	7555	39.04	377	"	3	.....	23	26
" 6th "	200	193½	42	.....	42	22	20	6796	35.12	303	"	1	.....	24	25
" 7th "	200	193½	46	.....	46	20	26	6889½	35.60	361	"	2	.....	10	12
" 8th "	200	193½	43	.....	43	29	14	7475½	38.63	413	"	2	.....	88	90
" 9th "	200	193½	40	.....	40	24	16	6877½	35.54	387	"	2	.....	89	91
" 10th "	200	193½	47	.....	47	22	25	6868	35.49	306	"	2	.....	35	37
" 11th "	200	193½	35	.....	35	16	19	6289	32.50	336	"	1	.....	39	40
" 12th "	200	193½	51	.....	51	31	20	7139	36.89	268	"	2	.....	33	35
			507	8	515	273	242	84080½	434.49						
Mount Pleasant, 1st Division	200	193½	35	8	43	18	25	7124	36.91	118	No.	2	1	141	144
" 2nd "	200	193	41	5	46	16	30	7309	37.87	279	"	2	1	101	104
" 3rd "	200	192½	41	2	43	21	22	7423½	38.56	325	Yes.	2	1	123	126
" 4th "	200	192½	46	.....	46	27	19	7811	40.57	379	"	1	1	145	147
" 5th "	200	193	40	.....	40	22	18	6804	35.25	338	"	2	1	101	104
" 6th "	200	192½	38	2	40	22	18	6691	34.75	382	"	2	1	114	117
" 7th "	200	192½	37	.....	37	17	20	6658½	34.58	379	"	2	1	113	116
" 8th "	200	193	37	.....	37	17	20	6711	34.76	379	"	2	1	116	119

Mount Pleasant, 9th Division	200	193	44	.....	44	23	21	6802½	35.24	393	Yes.		1	117	121
" 10th "	200	193	45	.....	45	23	22	7286	37.75	374	"	2	1	106	109
" 11th "	200	192½	51	.....	51	25	26	7357	38.21	366	"	2	1	126	129
" 12th "	200	192	40	.....	40	26	14	6692	34.85	318	"	2	1	116	119
" 13th "	200	192½	41	.....	41	19	22	6877½	35.72	413	"	2	1	116	119
" 14th "	200	193	45	.....	45	22	23	6858	35.53	368	"	2	1	117	120
" 15th "	99	97	46	.....	46	27	19	3751	38.67	225	"	1	....	100	101
" 16th "	99	97½	42	.....	42	22	20	3534½	36.25	202	"	1	.....	100	101
			669	17	686	347	339	105690½	585.47						
Macdonald, 1st Division	200	193½	30	.....	30	15	15	5212½	26.94	239	"	2	4	35	41
" 2nd "	200	193½	39	2	41	21	20	6325	32.69	260	No.	1	4	32	37
" 3rd "	200	193½	49	1	50	31	19	8367	43.24	414	Yes.	1	2	17	20
" 4th "	200	193½	46	.....	46	27	19	8101	41.86	441	"	1	2	24	27
" 5th "	200	193½	47	.....	47	25	22	7994½	41.32	437	"	1	4	27	32
" 6th "	200	193½	48	.....	48	22	26	7598½	39.26	422	"	1	1	28	30
" 7th "	200	193½	39	.....	39	20	19	6888½	35.59	298	"	1	2	11	14
" 8th "	200	193½	45	.....	45	24	21	7737	39.98	.....	"	1	4	36	41
" 9th "	117	115½	47	.....	47	22	25	4511½	39.06	195	"	1	.....	31	32
			390	3	393	207	186	62735½	339.94						
Lord Nelson, 1st Division	200	193½	34	6	40	22	18	6810	35.19	221	No.	2	1	3	6
" 2nd "	200	193½	43	.....	43	20	23	6826	35.27	369	"	3	.....	4	7
" 3rd "	200	193½	50	.....	50	30	20	8046½	41.53	445	"	2	.....	2	4
" 4th "	200	193½	44	.....	44	27	17	7777½	40.19	434	Yes.	2	.....	2	4
" 5th "	200	193½	43	.....	43	25	18	8083	41.77	438	"	2	.....	2	4
" 6th "	200	193½	49	.....	49	23	26	7954	41.10	447	"	2	.....	13	15
" 7th "	200	193½	44	.....	44	17	27	8098½	41.83	451	"	2	.....	4	6
" 8th "	200	193½	41	.....	41	25	16	7743½	40.01	427	"	2	.....	6	8
" 9th "	200	193½	37	.....	37	19	18	7802	40.52	435	"	2	.....	8	10
" 10th "	200	193½	35	.....	35	17	18	6908½	39.53	345	"	2	.....	10	12
" 11th "	200	193½	39	....	39	23	16	7659½	39.58	426	"	2	.....	21	23
" 12th "	200	193½	42	.....	42	20	22	7039½	36.37	396	"	2	.....	8	10
" 13th "	200	193½	38	....	38	18	20	6850	32.81	366	"	2	.....	2	4

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Vancouver.—*Continued:*															
Lord Nelson, 14th Division	117	115½	44	....	44	22	22	4342½	37.59	248	Yes.	2	.....	6	8
" 15th "	99	97½	46	.....	46	28	18	3862	40.63	217	"	1	.....	6	7
			629	6	635	336	299	105303	574.92						
Florence Nightingale, 1st Division	200	193½	42	3	45	18	27	8409½	43.46	224	No.	3	1	550	554
" 2nd "	200	193½	49	.....	49	20	29	8320	42.99	178	Yes.	2	.....	504	506
" 3rd "	200	193½	39	.....	39	18	21	6579½	34.00	141	"	2	.....	507	509
" 4th "	200	193½	47	.....	47	22	25	7304	37.74	359	"	2	.....	307	309
" 5th "	200	193½	39	.....	39	17	22	7726	39.93	416	"	3	.....	514	517
" 6th "	200	193½	47	.....	47	18	29	7853	40.58	443	"	2	.....	503	505
" 7th "	200	193½	50	.....	50	27	23	8131½	42.02	460	"	2	.....	505	507
" 8th "	200	193½	47	.....	47	22	25	7875½	40.70	396	"	2	.....	509	511
" 9th "	200	193½	48	.....	48	24	24	7962	41.15	408	"	2	.....	301	303
" 10th "	200	193½	45	.....	45	26	19	7651½	39.54	410	"	2	.....	508	510
" 11th "	200	193½	47	.....	47	27	20	7859½	40.61	415	"	2	....	505	507
" 12th "	200	193½	50	.....	50	31	19	7555	39.04	431	"	2	.....	1	3
" 13th "	200	193½	48	.....	48	29	19	7706	39.82	428	"	2	.....	501	503
" 14th "	99	97½	46	.....	46	17	29	4038½	41.42	232	"	1	....	307	308
			644	3	647	316	331	104971½	563.00						
Cecil Rhodes, 1st Division	200	193½	29	2	31	14	17	5655	29.23	124	No.	3	2	3	8
" 2nd "	200	193½	32	1	33	14	19	5447½	28.15	146	Yes.	2	1	4	7
" 3rd "	200	193½	32	.....	32	14	18	5580½	28.84	305	"	1	1	10	12

Cecil Rhodes, 4th Division	200	193½	36	.....	36	17	19	6380	32.97	312	Yes.	1	.....	29	30
" 5th "	200	193½	39	.....	39	22	17	6246½	32.28	277	"	1	.....	15	16
" 6th "	200	193½	47	.....	47	29	18	7890	40.77	433	"	1	....	19	20
" 7th "	200	193½	51	.....	51	22	29	8598½	44.43	431	"	2	.....	68	70
" 8th "	200	193½	55	.....	55	40	15	8060	41.65	55	"	1	.....	63	64
" 9th "	200	193½	48	.....	48	26	22	6278	32.44	368	"	1	.....	49	50
			369	3	372	198	174	60136	310.76						
Roberts, 1st Division	200	193½	43	4	47	23	24	8358	43.19	89	"	2	4	7	13
" 2nd "	200	193½	45	.....	45	25	20	7226½	37.34	80	No.	2	1	58	61
" 3rd "	200	193½	51	.....	51	21	30	8097½	41.84	438	Yes.	1	.....	2	3
" 4th "	200	193½	44	.....	44	27	17	7220½	37.30	390	"	1	.....	6	7
" 5th "	200	193½	52	.....	52	26	26	8244½	42.60	441	"	2	3	69	74
" 6th "	200	193½	48	.....	48	25	23	7370	38.08	360	"	1	....	6	7
" 7th "	200	193½	37	....	37	24	13	6281½	31.46	345	"	1	.....	22	23
" 8th "	200	193½	40	.....	40	16	24	6882	35.56	376	"	1	.....	23	24
" 9th "	200	193½	43	.....	43	14	29	7814½	40.38	431	"	1	.....	57	58
" 10th "	200	193½	41	.....	41	24	17	6412½	33.13	280	"	2	1	107	110
" 11th "	200	193½	44	.....	44	26	18	7826½	40.44	390	"	1	1	6	8
" 12th "	200	193½	50	.....	50	35	15	8366½	43.24	266	"	1	1	38	40
" 13th "	200	193½	45	.....	45	22	23	7367	38.07	418	"	1	1	10	12
" 14th "	200	193½	44	.....	44	23	21	7499	38.75	420	"	1	1	15	17
" 15th "	200	193½	48	.....	48	22	26	7611	39.33	416	"	2	.....	48	50
" 16th "	200	193½	46	.....	46	21	25	7415½	38.21	338	"	1	.....	40	41
" 17th "	200	193½	34	.....	34	22	12	7002	36.18	352	"	1	1	33	35
" 18th "	200	193½	37	.....	37	23	14	6861½	35.45	397	"	1	1	46	48
" 19th "	117	115½	42	.....	42	25	17	3616	31.30	194	"	1	1	6	8
" 20th "	99	97½	40	.....	40	24	16	3091	31.70	143	"	.....	2	.....	2
" 21st "	79	77½	44	.....	44	25	19	2709	34.95	206	"	.....	.....	20	20
			918	4	922	493	429	143272½	788.50						
Laura Secord, 1st Division	200	193½	33	.....	33	17	16	4709½	24.33	52	No.	3	2	7	12
" 2nd "	200	193½	38	.....	38	18	20	6985½	36.10	233	"	2	3	54	59
" 3rd "	200	193½	42	.....	42	23	19	7589½	39.21	425	Yes.	2	1	12	15

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Vancouver.—*Continued:*															
Laura Secord, 4th Division	200	193½	45	.....	45	29	16	7630	39.43	424	Yes.	2	2	29	33
" 5th "	200	193½	41	.....	41	23	18	7030½	35.81	392	"	2	1	46	49
" 6th "	200	193½	44	.....	44	19	25	7415	38.32	385	"	2	.....	116	118
" 7th "	200	193½	49	.....	49	25	24	7083½	36.60	406	"	2	.....	127	129
" 8th "	99	97½	39	.....	39	21	18	3331½	34.16	185	No.	1	.....	7	8
			331	.....	331	175	156	51775	283.96						
Seymour, 1st Division	200	193½	30	3	33	13	20	5800½	29.97	93	"	4	1	6	11
" 2nd "	200	193½	39	3	42	19	23	6356	32.84	.....	"	2	.....	7	9
" 3rd "	200	193½	50	.....	50	29	21	8033	41.51	439	Yes.	2	1	22	25
" 4th "	200	193½	45	.....	45	24	21	7681	39.17	429	"	1	1	27	29
" 5th "	200	193½	44	.....	44	19	25	7979½	41.23	401	"	2	3	42	47
" 6th "	200	193½	46	.....	46	30	16	7292	37.68	409	"	2	.....	45	47
" 7th "	200	193½	45	.....	45	19	26	7432½	38.41	464	"	2	1	12	15
" 8th "	200	193½	51	.....	51	15	36	7280½	37.62	419	"	2	2	24	28
" 9th "	200	193½	43	.....	43	23	20	6818½	35.23	400	"	2	1	29	32
" 10th "	200	193½	34	.....	34	15	19	6823½	35.26	399	"	2	.....	22	24
" 11th "	200	193½	31	.....	31	19	12	5376½	27.78	294	"	2	.....	33	35
" 12th "	117	115½	33	.....	33	14	19	3281½	28.41	148	"	1	1	22	24
" 13th "	99	97½	34	.....	34	13	21	2836½	29.09	169	"	1	.....	32	33
			525	6	531	252	279	82991½	454.20						

Strathcona, 1st Division	200	193½	40	1	41	16	25	7043	36.39	336	No.	3	2	39	44
" 2nd "	200	193½	36	1	37	21	16	5734½	29.63	248	Yes.	2	.....	23	25
" 3rd "	200	193½	36	.....	36	17	19	6075½	31.39	295	"	2	1	32	35
" 4th "	200	193½	40	.....	40	22	18	7237½	37.35	385	"	3	1	22	26
" 5th "	200	193½	34	.....	34	17	17	5923½	30.61	319	"	2	1	26	29
" 6th "	200	193½	46	.....	46	30	16	7279½	37.62	398	"	2	1	17	20
" 7th "	200	193½	50	.....	50	21	29	7032	36.34	389	"	2	1	22	25
" 8th "	200	193½	50	.....	50	28	22	7774½	40.17	443	No.	2	2	29	33
" 9th "	200	193½	40	.....	40	29	11	7069½	36.52	315	Yes.	2	7	29	38
" 10th "	200	193½	51	.....	51	16	35	7231	37.37	282	"	2	7	37	46
" 11th "	200	193½	52	.....	52	20	32	8833½	45.65	441	"	2	.....	39	41
" 12th "	200	193½	44	.....	44	24	20	7952	41.09	211	"	2	7	47	56
" 13th "	200	193½	42	.....	42	22	20	7592	39.23	123	"	2	1	44	47
" 14th "	200	193½	39	.....	39	24	15	6876	35.53	76	"	2	1	54	57
" 15th "	200	193½	49	.....	49	21	28	7736½	39.98	134	"	2	1	30	33
" 16th "	133	131½	45	.....	45	33	12	4793	36.44	241	"	2	6	58	66
			694	2	696	361	335	1121831½	591.31						
Tennyson, 1st Division	200	193½	30	6	36	14	22	6577½	33.99	176	No.	2	1	1	4
" 2nd "	200	193½	32	2	34	18	16	6563	33.92	332	Yes.	1	1	9	11
" 3rd "	200	193½	37	2	39	16	23	6936½	35.82	330	"	2	.....	19	21
" 4th "	200	193½	48	.....	48	23	25	8141	42.07	397	"	3	1	5	9
" 5th "	200	193½	49	.....	49	19	30	8207	41.42	452	"	2	.....	5	7
" 6th "	250	193½	43	.....	43	23	20	7692½	39.75	419	"	3	.....	8	11
" 7th "	200	193½	45	.....	45	25	20	8282	42.23	464	"	2	.....	15	17
" 8th "	200	198½	51	.....	51	23	28	8255½	42.66	308	No.	2	2	30	34
" 9th "	200	193½	50	.....	50	27	23	8026½	41.48	443	Yes.	2	.....	11	13
" 10th "	200	193½	37	.....	37	19	18	6637½	34.30	379	"	2	1	13	16
" 11th "	200	193½	34	2	36	16	20	6998	36.16	397	"	2	.....	48	50
" 12th "	117	115½	40	.....	40	22	18	3877½	33.57	215	"	1	1	7	9
" 13th "	99	97½	46	.....	46	20	26	3953	40.54	46	"	1	1	7	9
			542	12	554	265	289	901471½	497.91						

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Vancouver.—*Concluded:*															
School for the Blind	200	193½	7	.....	7	3	4	995½	5.14	28	Yes.	1	.....	12	13
School for the Deaf, 1st Division	200	192½	4	2	6	1	5	1336½	6.94	.....	No.	2	2	117	121
" 2nd "	99	97½	5	1	6	1	5	478	4.90	.....	"	1	1	67	69
			9	3	12	2	10	1814½	11.84						
Vancouver, North:															
Lonsdale, 1st Division	200	199½	45	.....	45	18	27	7163½	39.91	391	No.	2	17	183	202
" 2nd "	200	199½	37	.....	37	19	18	6165½	30.90	294	Yes.	1	14	189	204
" 3rd "	200	199½	42	.....	42	21	21	6015½	30.15	331	"	1	15	191	207
" 4th "	200	199½	27	.....	27	20	7	5277½	26.45	318	"	1	15	194	210
" 5th "	200	199½	37	.....	37	22	15	5563½	27.88	326	"	2	14	188	204
" 6th "	200	199½	31	.....	31	13	18	5108	25.60	251	"	1	16	186	203
			219	.....	219	113	106	35293½	180.89						
Queen Mary, 1st Division	200	199½	33	3	36	15	21	6930	34.73	228	No.	3	13	111	127
" 2nd "	200	199½	41	.....	41	22	19	5936	29.70	333	Yes.	1	14	46	61
" 3rd "	200	199½	30	.....	30	15	15	6194½	31.05	331	"	1	14	72	87
" 4th "	200	199½	42	.....	42	21	21	7123	35.70	372	"	2	18	199	219
" 5th "	200	199½	37	.....	37	16	21	6692	33.54	359	"	2	15	63	80
" 6th "	200	199½	40	.....	40	19	21	6584½	33.00	371	No.	1	12	68	81
" 7th "	200	199½	37	.....	37	22	15	5741	28.77	266	Yes.	2	15	121	138
" 8th "	117	116½	36	.....	36	16	20	3502½	30.06	192	"	.....	9	54	63
			296	3	299	146	153	48703½	256.55						

Ridgeway, 1st Division	200	194½	37	1	38	11	27	6102	31.38	344	No.	3	18	27	48
" 2nd "	200	199⅓	40	.....	40	18	22	6744½	33.80	351	Yes.	1	14	62	77
" 3rd "	200	199½	40	.....	40	17	23	6867	34.42	363	"	1	15	52	68
" 4th "	200	199½	36	.....	36	15	21	6743⅓	33.80	366	"	1	13	70	84
" 5th "	200	199⅓	43	.....	43	16	27	7342½	36.80	391	"	1	13	52	66
" 6th "	200	199⅓	44	.....	44	24	20	6664	33.43	400	"	1	10	43	54
" 7th "	200	199½	39	.....	39	18	21	5717	28.65	292	"	1	13	85	99
" 8th "	176	175½	40	.....	40	20	20	5242	29.86	262	"	1	9	33	43
Vernon:			319	1	320	139	181	51422½	262.14						
Central, 1st Division	200	191	23	2	25	7	18	4774	24.99	206	No.	2	2	16	20
" 2nd "	200	190½	40	.....	40	21	19	7003⅓	36.76	358	"	3	5	20	28
" 3rd "	200	191	43	1	44	27	17	6464½	33.84	348	"	2	6	19	27
" 4th "	200	191	45	.....	45	26	19	6547½	34.28	376	Yes.	2	3	20	25
" 5th "	200	191	37	.....	37	21	16	6750	35.35	368	"	2	6	22	30
" 6th "	200	191	39	.....	39	20	19	6159½	32.24	316	"	2	3	10	15
" 7th "	200	191	43	.....	43	21	22	7068	37.00	390	"	2	2	34	38
" 8th "	200	191	38	.....	38	20	18	5880½	30.78	374	"	2	1	23	26
" 9th "	200	191	49	.....	49	17	32	8030	42.04	413	"	2	3	21	26
" 10th "	200	191	46	.....	46	25	21	7607	39.82	427	"	2	5	116	123
			403	3	406	205	201	66284½	347.10						
Mason Street, 1st Division	200	190	42	.....	42	23	19	6593	34.70	375	"	2	5	46	53
" 2nd "	200	189	37	.....	37	19	18	6538½	34.59	372	No.	2	5	41	48
" 3rd "	200	190	45	.....	45	25	20	6628	34.88	385	Yes.	2	3	47	52
" 4th "	200	190	35	.....	35	21	14	5763	30.33	321	"	2	3	44	49
Victoria:			159	.....	159	88	71	25522½	134.50						
Bank Street, 1st Division	200	196	39	.....	39	16	23	6410	32.70	332	"	3	1	82	86
" 2nd "	200	196	37	.....	37	18	19	5908	30.14	315	"	3	1	116	120
" 3rd "	200	196	35	.....	35	23	12	6292½	32.10	362	"	3	.....	40	43
" 4th "	200	196	57	.....	57	27	30	7767	39.62	465	"	3	.....	73	76
			168	.....	168	84	84	26377½	134.56						
Beacon Hill, 1st Division	200	196	41	.....	41	26	15	7166½	36.56	391	"	2	1	25	28
" 2nd "	200	196	37	.....	37	22	15	6691	34.15	332	"	2	1	34	37

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Victoria.—*Continued:*															
Beacon Hill, 3rd Division	200	196	44	.....	44	24	20	6271	31.99	360	Yes.	1	1	6	8
" 4th "	200	196	44	.....	44	23	21	5576	28.45	328	"	2	1	126	129
			166	.....	166	95	71	25704½	131.15						
Boys' Central, 1st Division	200	200	23	9	32	32	.....	5618½	28.09	264	No.	4	3	8	15
" 2nd "	200	200	30	2	32	32	.....	5606½	28.03	266	"	4	1	16	21
" 3rd "	200	200	51	.....	51	51	.....	6973	34.86	332	"	2	.....	2	4
" 4th "	200	200	42	.....	42	42	.....	6624½	33.12	355	Yes.	2	.....	5	7
" 5th "	200	200	45	.....	45	45	.....	7347	36.73	391	"	2	.....	4	6
" 6th "	200	200	48	.....	48	48	.....	7089½	35.44	385	"	2	.....	1	3
" 7th "	200	200	37	.....	37	37	.....	6567½	32.83	368	"	2	.....	1	3
" 8th "	200	196	45	.....	45	45	.....	6819	34.79	390	"	2	.....	2	4
" 9th "	200	196	42	.....	42	42	.....	7053	35.98	407	"	2	.....	7	9
" 10th "	200	196	46	.....	46	46	.....	6378½	32.64	379	"	3	.....	16	19
" 11th "	117	113	30	.....	30	30	.....	2658½	23.52	172	"	1	....	21	22
			439	11	450	450	.....	68735½	356.03						
Burnside, 1st Division	200	200	28	.....	28	12	16	6112½	30.56	329	"	3	4	4	11
" 2nd "	200	200	39	....	39	21	18	7211½	36.05	389	"	3	5	4	12
" 3rd "	200	196	47	.....	47	26	21	7501½	38.27	416	"	3	5	5	13
" 4th "	200	196	38	.....	38	21	17	6217½	31.72	385	No.	3	5	11	19
" 5th "	200	196	41	.....	41	24	17	6328	32.28	398	"	3	5	26	34

Burnside, 6th Division	117	117	24	.....	24	9	15	2630½	22.48	148	Yes.	2	2	14	18
			217	.....	217	113	104	36001½	191 36						
Cook Street	200	200	32	.....	32	17	15	5117½	25.58	287	"	2	1	46	49
Sir James Douglas, 1st Division	200	200	36	4	40	21	19	7462½	37.31	388	"	4	4	14	22
" 2nd "	200	200	31	7	38	14	24	6130½	30.65	374	"	3	2	3	8
" 3rd "	200	200	42	.....	42	21	21	7587	37.93	395	"	2	.....	3	5
" 4th "	200	200	46	.....	46	30	16	8483½	42.41	486	"	1	.....	9	10
" 5th "	200	200	39	.....	39	16	23	6427½	32.13	309	"	2	1	7	10
" 6th "	200	200	44	.....	44	25	19	7887	39.43	419	"	2	.....	2	4
" 7th "	200	200	52	.....	52	28	24	8375½	41.87	524	"	2	.....	2	4
" 8th "	200	196	52	.....	52	23	29	8358	42.64	519	"	2	2	33	37
" 9th "	200	196	45	.....	45	22	23	7624	38.89	444	"	2	2	48	52
" 10th "	200	196	58	.....	58	40	18	8731	44.55	500	"	1	2	4	7
" 11th "	106	102	34	.....	34	23	11	2964½	29.06	190	"	1	2	32	35
			479	11	490	263	227	80031	416.87						
Fernwood, 1st Division	200	195	18	.....	18	8	10	3805½	19.51	204	"	2	.....	28	30
" 2nd "	200	195	34	1	35	18	17	5993½	30.73	340	No.	2	.....	28	30
			52	1	53	26	27	9799	50.24						
Girls' Central, 1st Division	200	200	34	2	36	....	36	5994	29.97	286	Yes.	9	9	87	105
" 2nd "	200	200	33	2	35	.....	35	5619½	28.09	293	"	2	2	60	64
" 3rd "	200	200	47	2	49	.....	49	6753	33.76	373	"	2	4	69	75
" 4th "	200	200	44	.....	44	.....	44	7031	35.15	377	"	3	3	66	72
" 5th "	200	200	41	.....	41	.....	41	7056	35.28	381	"	2	3	67	72
" 6th "	200	200	38	.....	38	.....	38	6319½	31.59	350	"	2	3	69	74
" 7th "	200	200	44	.....	44	.....	44	7733	38.66	417	"	3	2	56	61
" 8th "	200	200	41	.....	41	.....	41	7305½	36.52	390	"	3	2	61	66
" 9th "	200	196	41	.....	41	.....	41	6905½	35.23	384	"	3	.....	62	65
" 10th "	200	196	34	.....	34	.....	34	7493	38.23	428	"	2	2	.....	4
" 11th "	200	196	36	.....	36	.....	36	5775	29.46	356	"	2	1	10	13
" 12th "	200	196	36	.....	36	.....	36	5284	26.95	323	"	2	3	7	12
" 13th "	79	75	32	.....	32	.....	32	1939	25.85	116	"	1	1	15	17
			501	6	507	.....	507	81208	424.74						

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Victoria.—*Continued:*															
George Jay, 1st Division	200	200	25	8	33	12	21	6892½	34.46	323	Yes.	5	16	506	527
" 2nd "	200	200	34	3	37	12	25	5764	28.82	302	"	3	4	102	109
" 3rd "	200	200	37	.....	37	18	19	6363	31.82	375	"	4	4	103	111
" 4th "	200	200	40	4	44	17	27	5917	29.58	326	"	3	4	104	111
" 5th "	200	200	35	.....	35	18	17	6384½	31.92	350	"	3	5	104	112
" 6th "	200	200	35	1	36	18	18	6637½	33.18	400	"	3	3	4	10
" 7th "	200	200	31	.....	31	13	18	5710	28.55	302	"	3	2	2	7
" 8th "	200	200	39	.....	39	18	21	7337	36.68	406	"	3	5	102	110
" 9th "	200	200	37	.....	37	26	11	6656	33.28	352	"	3	2	109	114
" 10th "	200	196	43	.....	43	22	21	6535	33.34	376	"	3	5	108	116
			356	16	372	174	198	64196½	321.63						
Margaret Jenkins, 1st Division	200	200	35	1	36	17	19	5972½	29.86	324	"	3	3	7	13
" 2nd "	200	200	43	.....	43	24	19	6896	34.48	396	"	3	3	9	15
" 3rd "	200	196	34	.....	34	18	16	5937	30.26	386	"	3	3	27	33
" 4th "	57	53	32	.....	32	17	15	1387½	26.18	93	"	1	2	12	15
			144	1	145	76	69	20193	120.78						
King's Road, 1st Division	200	196	50	.....	50	33	17	7205½	36.76	426	"	2	.....	61	63
" 2nd "	200	196	42	.....	42	25	17	6687½	34.12	433	"	2	.....	117	119
" 3rd	42	42	33	.....	33	18	15	1267½	30.17	64	"	....	.....	53	53
			125	.....	125	76	49	15160½	101.05						

Kingston Street, 1st Division	200	196	42	.....	42	21	21	7178	36.62	396	Yes.	2	3	155	160
" 2nd "	200	196	43	.....	43	23	20	6285½	32.06	337	"	2	3	177	182
" 3rd "	200	196	36	.....	36	14	22	6107½	31.16	309	"	2	3	165	170
" 4th "	200	196	27	.....	27	9	18	4636	23.65	259	"	2	.....	157	159
" 5th "	200	196	45	.....	45	15	30	5163½	26.34	200	No.	2	3	204	209
			193	.....	193	82	111	29370½	149.83						
North Ward, 1st Division	200	200	35	3	38	16	22	7060	35.30	223	Yes.	4	8	187	199
" 2nd "	200	200	44	.....	44	13	31	7232	36.16	392	"	3	3	65	71
" 3rd "	200	200	42	.....	42	25	17	7373	36.86	393	"	2	6	81	89
" 4th "	200	200	40	.....	40	19	21	7564	36.82	386	"	2	5	97	104
" 5th "	200	200	36	.....	36	23	13	6678	33.39	358	"	2	6	96	104
" 6th "	200	200	40	.....	40	18	22	7084½	35.42	373	"	4	5	96	105
" 7th "	200	200	38	.....	38	19	19	6341	31.70	348	"	3	6	95	104
" 8th "	200	196	35	.....	35	18	17	6550½	33.42	368	"	2	2	67	71
" 9th "	200	196	38	...	38	24	14	5223	26.63	307	"	3	2	66	71
			348	3	351	175	176	60906	305.70						
Oaklands, 1st Division	200	200	34	.....	34	20	14	5599	27.99	187	No.	4	3	202	209
" 2nd "	200	200	31	.....	31	15	16	5148	25.74	281	Yes.	4	1	10	15
" 3rd "	200	200	39	.....	39	19	20	6791	33.95	372	"	4	2	6	12
" 4th "	200	200	43	.....	43	18	25	8235½	41.17	344	"	3	2	1	6
" 5th "	200	200	35	.....	35	16	19	5493	27.46	316	"	3	2	26	31
" 6th "	200	196	42	.....	42	23	19	6988½	35.65	347	"	2	2	11	15
" 7th "	200	196	41	.....	41	17	24	7092½	36.18	310	"	3	1	146	150
" 8th "	200	196	57	1	58	32	26	8111½	41.38	170	"	2	2	144	148
			322	1	323	160	163	53459	269.52						
Pembroke Street	200	200	18	2	20	20	.....	2546	12.73	133	"	2	2	17	21
Quadra Street, North, 1st Division	200	200	24	1	25	11	14	5151½	25.75	210	"	4	4	91	99
" 2nd "	200	192	36	....	36	21	15	6262½	32.61	308	"	2	1	71	74
" 3rd "	200	200	39	.....	39	19	20	6769	33.84	364	"	2	4	72	78
" 4th "	200	200	38	.....	38	17	21	6551½	32.75	353	"	1	2	69	72
" 5th "	200	200	41	.....	41	22	19	6469	32.34	392	"	1	4	75	80
" 6th "	200	196	38	.....	38	20	18	6237	31.81	351	"	3	4	55	62

TABLE A.—Attendance of Pupils at *Graded City Schools*, Details of Management, &c., 1916-1917.—*Concluded.*

GRADED CITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Victoria.—*Concluded:*															
Quadra Street, North, 7th Division	200	196	42	.....	42	17	25	6477½	33.04	375	Yes.	2	4	86	92
" 8th "	176	172	46	.....	46	23	23	5880	34.18	386	"	2	4	41	47
			304	1	305	150	155	49798	256.32						
Rock Bay (closed)	24	24	.....	.....	.....	.....	.....	296	12.33	20	"	.....	.....	.....	.....
South Park, 1st Division	200	200	26	12	38	11	27	6785	33.97	350	"	5	5	156	166
" 2nd "	200	200	30	13	43	23	20	6580	32.90	392	"	3	3	116	122
" 3rd "	200	200	45	.....	45	15	30	7718	38.59	456	"	3	2	154	159
" 4th "	200	200	40	4	44	19	25	8201	41.00	432	"	3	2	152	157
" 5th "	200	200	36	2	38	21	17	6247	31.23	385	"	3	2	157	162
" 6th "	200	200	35	.....	35	14	21	6527	32.63	386	"	2	2	167	171
" 7th "	200	200	38	.....	38	19	19	6963	34.81	412	"	3	2	164	169
" 8th "	200	200	48	.....	48	31	17	7527	37.63	446	"	3	2	156	161
" 9th "	200	200	34	.....	34	19	15	6271½	31.35	322	"	3	.....	8	11
			332	31	363	172	191	62819½	314.11						
Spring Ridge, 1st Division	200	196	52	.....	52	28	24	7599	38.77	428	"	3	.....	206	209
" 2nd "	200	196	40	.....	40	19	21	6567	33.50	366	"	3	.....	14	17
" 3rd "	200	196	45	.....	45	23	22	6569½	33.51	389	"	3	.....	13	16
" 4th "	200	196	54	.....	54	28	26	7829½	39.94	466	"	2	.....	150	152
			191	.....	191	98	93	28565	145.72						
West, 1st Division	200	200	28	2	30	11	19	5091½	25.45	270	No.	5	6	385	396
" 2nd "	200	200	33	1	34	12	22	5276½	26.38	380	Yes.	3	5	382	390

West, 3rd Division	200	200	41	.....	41	20	21	6750½	33.75	374	Yes.	4	4	374	382	
" 4th "	200	200	41	1	42	24	18	6595	32.97	361	"	3	5	361	369	
" 5th "	200	200	47	....	47	25	22	7948⅔	39.74	433	"	3	1	360	364	
" 6th "	200	200	43	....	43	19	24	7075	35.37	395	"	5	1	367	373	
" 7th "	200	196	39	.....	39	14	25	6922	35.31	378	"	3	1	361	365	
" 8th "	200	196	42	.....	42	25	17	6696⅓	34.16	406	"	3	2	361	366	
" 9th "	200	196	41	.....	41	16	25	7045	35.94	415	"	3	3	362	368	
" 10th "	200	196	44	.....	44	18	26	5954½	30.38	353	"	2	1	353	356	
			399	4	403	184	219	65355	329.45							
Child Study Laboratory	200	198	18	2	20	14	6	2464	12.44	107		1	5	83	89	
Grand total, *Graded City Schools*, 1916-1917			31751	513	32264	16131	16133	5138647	27127.93							
" " 1915-1916			30769	754	31523	16063	15455	5090262½	25725.54							

Summary of Attendance of Pupils at the *Graded Schools* of the Incorporated Cities, 1916-1917.

SCHOOLS.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.
Alberni	66	.....	66	26	40	11538½	59.63
Total, 1915-1916	72	.....	72	27	45	11612½	60.63
Armstrong:							
High School	13	37	50	17	33	8010	40.24
Graded "	234	4	238	114	124	37104	186.42
	247	41	288	131	157	45114	226.66
Total, 1915-1916	233	52	285	139	146	43129½	235.91
Chilliwack:							
High School	32	69	101	45	56	17155½	87.60
Graded "	317	13	330	159	171	54205	275.62
	349	82	431	204	227	71360½	363.22
Total, 1915-1916	371	87	458	231	227	75252½	390.53
Courtenay	95	12	107	49	58	14921½	80.76
Total, 1915-1916	88	15	103	55	48	14643	73.53
Cranbrook:							
High School	13	14	27	11	16	3885	20.34
Central "	378	2	380	195	185	63672½	319.35
Kootenay Orchards "	19	1	20	7	13	3585	18.38
South Ward "	76	.....	76	43	33	11640½	58.20
	486	17	503	256	247	82783	416.27
Total, 1915-1916	520	13	533	271	262	86418	421.64
Cumberland:							
High School	19	20	39	17	22	5729½	36.50
Graded "	340	2	342	179	163	54733½	276.19
	359	22	381	196	185	60463	312.69
Total, 1915-1916	350	19	369	191	178	63512	321.20
Duncan:							
High School	14	13	27	12	15	4347	22.01
Graded "	215	.....	215	100	115	31255½	175.13
	229	13	242	112	130	35602½	197.14
Total, 1915-1916	204	26	230	121	109	37849	186.03
Enderby:							
High School	16	10	26	12	14	3974	20.80
Graded "	127	8	135	70	65	23315	117.60
	143	18	161	82	79	27289	138.40
Total, 1915-1916	150	23	173	91	82	28622½	142.64

Summary of Attendance of Pupils at the *Graded Schools* of the Incorporated Cities, 1916-1917.—*Continued.*

Schools.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.
Fernie:							
High School	10	29	39	22	17	6461	32.68
Graded "	853	6	859	427	432	139484½	701.44
	863	35	898	449	449	145945½	734.12
Total, 1915-1916	833	28	861	423	438	138804	681.57
Grand Forks:							
High School	18	31	49	20	29	8777½	44.61
Graded "	405	9	414	212	202	58633	332.90
	423	40	463	232	231	67410½	377.51
Total, 1915-1916	408	39	447	220	227	68208	367.80
Greenwood:							
High School	7	9	16	7	9	2709	14.48
Graded "	102	.....	102	53	49	16382½	83.87
	109	9	118	60	58	19091½	98.35
Total, 1915-1916	107	1	108	56	52	18140½	89.36
Kamloops:							
High School	23	42	65	28	37	10404½	56.23
Graded "	458	12	470	236	234	68352½	361.75
	481	54	535	264	271	78757	417.98
Total, 1915-1916	491	40	531	272	259	78754½	393.76
Kaslo:							
High School	13	28	41	15	26	6872½	34.44
Graded "	167	6	173	79	94	28708½	144.36
	180	34	214	94	120	35581	178.80
Total, 1915-1916	176	32	208	95	113	31576½	175.90
Kelowna:							
High School	20	29	49	22	27	8058½	40.28
Graded "	358	6	364	174	190	60862	318.24
	378	35	413	196	217	68920½	358.52
Total, 1915-1916	340	48	388	196	192	64921½	338.28
Ladysmith:							
High School	16	37	53	24	29	7853	42.55
Graded "	462	4	466	226	240	73969	398.51
	478	41	519	250	269	81822	441.06
Total, 1915-1916	526	38	564	287	277	95937	474.54
Merritt	245	18	263	134	129	42926½	217.25
Total, 1915-1916	278	15	293	151	142	49669	245.12

Summary of Attendance of Pupils at the *Graded Schools* of the Incorporated Cities, 1916-1917.—*Continued.*

SCHOOLS.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.
Nanaimo:							
High School	39	74	113	45	68	18085	91.99
Middle Ward "	161	.....	161	89	72	29131½	146.37
Quennell "	794	14	808	413	395	131207	659.25
South Ward "	125	.....	125	58	67	20379½	102.41
	1119	88	1207	605	602	198803	1000.02
Total, 1915-1916	1136	76	1212	632	580	198203½	1001.03
Nelson:							
High School	87	72	159	65	94	22807½	116.53
Graded "	669	9	678	358	320	114101	591.70
	756	81	837	423	414	136908½	708.23
Total, 1915-1916	761	98	859	454	405	149618	736.53
New Westminster:							
High School	100	231	331	142	189	52162½	271.72
F. W. Howay "	388	3	391	171	220	65197½	337.82
Lord Kelvin "	313	2	315	153	162	51035½	275.21
Lord Lister "	291	6	297	136	161	46787	257.86
Richard McBride "	345	5	350	165	185	55857	287.88
Queensborough "	86	.....	86	41	45	12917	66.58
John Robson "	337	25	362	220	142	58566½	301.83
Herbert Spencer "	310	6	316	152	164	52277	269.44
	2170	278	2448	1180	1268	394800	2068.34
Total, 1915-1916	2116	264	2380	1176	1204	394806	1989.74
Phoenix	172	.....	172	91	81	29446	150.08
Total, 1915-1916	191	.....	191	98	93	32288	160.31
Port Alberni:							
High School	9	16	25	8	17	3573	18.18
Graded "	108	.....	108	59	49	16712½	89.14
	117	16	133	67	66	20285½	107.32
Total, 1915-1916	142	2	144	77	67	18558	96.58
Port Coquitlam:							
Central School	129	.....	129	67	62	17955½	98.37
James Park "	60	1	61	25	36	9018½	49.29
	189	1	190	92	98	26974	147.66
Total, 1915-1916	192	6	198	98	100	30606½	154.67
Port Moody	156	2	158	78	80	21511	108.76
Total, 1915-1916	157	6	163	73	90	24510	126.18
Prince George	163	9	172	74	98	23852	119.85
Total, 1915-1916	164	1	165	88	77	21699	116.30

Summary of Attendance of Pupils at the *Graded Schools* of the Incorporated Cities, 1916-1917.—*Continued.*

SCHOOLS.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.
Prince Rupert:							
High School	11	26	37	18	19	6381	32.21
Graded "	467	2	469	225	244	77890½	395.23
	478	28	506	243	263	84271½	427.44
Total, 1915-1916	539	21	560	296	264	86403	460.05
Revelstoke:							
High School	24	45	69	27	42	11864	59.60
Central "	265	7	272	158	114	44799	226.68
Selkirk "	355	7	362	182	180	62195	327.65
	644	59	703	367	336	118858	613.93
Total, 1915-1916	629	65	694	368	326	121208½	610.55
Rossland:							
High School	22	31	53	20	33	7759½	40.98
Central "	425	4	429	209	220	66438	357.12
Cook Avenue "	244	4	248	124	124	39126½	204.83
	691	39	730	353	377	113324	602.93
Total, 1915-1916	713	42	755	360	395	119815½	620.55
Salmon Arm:							
High School	9	16	25	9	16	4069½	20.34
Graded "	123	2	125	60	65	19330	100.32
	132	18	150	69	81	23399½	120.66
Total, 1915-1916	130	19	149	72	77	19705½	109.17
Sandon	52	.....	52	27	25	7142	37.19
Total, 1915-1916	39	.....	39	25	14	4644½	23.93
Slocan	65	.....	65	29	36	11022½	56.16
Total, 1915-1916	72	.....	72	31	41	11088½	54.27
Trail:							
High School	24	18	42	19	23	5442	35.20
Central "	528	.....	528	262	266	79073½	427.43
Smelter Hill "	36	1	37	14	23	2518	29.27
	588	19	607	295	312	87033½	491.90
Total, 1915-1916	393	16	409	207	202	62599	333.49
Vancouver:							
Britannia High School	178	305	483	201	282	76954½	402.88
King Edward " "	405	537	942	428	514	147439½	772.43
King George " "	147	197	344	158	186	55833½	302.46
Aberdeen "	401	2	403	221	182	59372½	306.89
Alexandra "	577	5	582	274	308	93069½	503.03
Bayview "	259	.....	259	126	133	41229½	213.13
Beaconsfield "	192	2	194	94	100	30621	158.67

Summary of Attendance of Pupils at the *Graded Schools* of the Incorporated Cities, 1916-1917.—*Continued.*

SCHOOLS.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.
Vancouver.—*Concluded:*							
Central School	553	45	598	338	260	89080	467.70
Children's Home "	147	3	150	76	74	21190	110.06
Dawson "	923	32	955	458	497	142632½	798.17
Charles Dickens "	282	4	286	144	142	49095	268.07
Fairview "	621	12	633	326	307	100142½	518.52
Franklin "	184	.....	184	90	94	30144½	155.77
Simon Fraser "	516	10	526	240	286	84482½	469.35
General Gordon "	371	1	372	190	182	60796½	314.15
Grandview "	496	.....	496	232	264	79477	427.08
Hastings "	439	9	448	218	230	76605	414.88
Henry Hudson "	498	5	503	259	244	76107½	435.13
Kitsilano "	427	3	430	193	237	69311½	372.04
Livingstone "	347	4	351	181	170	53086½	291.21
Model "	507	8	515	273	242	84080½	434.49
Mount Pleasant "	669	17	686	347	339	105690½	585.47
Macdonald "	390	3	393	207	186	62735½	339.94
Lord Nelson "	629	6	635	336	299	105303	574.92
Florence Nightingale "	644	3	647	316	331	104971½	563.00
Cecil Rhodes "	369	3	372	198	174	60136	310.76
Roberts "	918	4	922	493	429	143272½	788.50
Laura Secord "	331	.....	331	175	156	51775	283.96
Seymour "	525	6	531	252	279	82991½	454.20
Strathcona "	694	2	696	361	335	112183½	591.31
Tennyson "	542	12	554	265	289	90147½	497.91
School for the Blind	7	.....	7	3	4	925½	5.14
School for the Deaf	9	3	12	2	10	1814½	11.84
	14197	1243	15440	7675	7765	2442768	13143.06
Total, 1915-1916	13312	1405	14717	7490	7227	2401205	11962.44
Vancouver North:							
High School	63	41	104	35	69	15997	81.61
Lonsdale "	219	.....	219	113	106	35293½	180.89
Queen Mary "	296	3	299	146	153	48703½	256.55
Ridgeway "	319	1	320	139	181	51422½	262.14
	897	45	942	433	509	151416½	781.19
Total, 1915-1916	44	90	934	453	481	143685½	715.05

Summary of Attendance of Pupils at the *Graded Schools* of the Incorporated Cities, 1916-1917.—*Concluded.*

SCHOOLS.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.
Vernon:							
High School	30	31	61	21	40	8536½	45.29
Central "	403	3	406	205	201	66284½	347.10
Mason Street "	159	.....	159	88	71	25522½	134.50
	592	34	626	314	312	100343½	526.89
Total, 1915-1916	580	31	611	313	298	95925½	490.85
Victoria:							
High School	240	439	679	288	391	113098½	565.86
Bank Street "	168	.....	168	84	84	26377½	134.56
Beacon Hill "	166	.....	166	95	71	25704½	131.15
Boys' Central "	439	11	450	450	.....	68735½	356.03
Burnside "	217	.....	217	113	104	36001½	191.36
Cook Street "	32	.....	32	17	15	5117½	25.58
Sir James Douglas "	479	11	490	263	227	80031	416.87
Fernwood "	52	1	53	26	27	9799	50.24
Girls' Central "	501	6	507	.....	507	81208	424.74
George Jay "	356	16	372	174	198	64196½	321.63
Margaret Jenkins "	144	1	145	76	69	20193	120.78
King's Road "	125	.....	125	76	49	15160½	101.05
Kingston Street "	193	.....	193	82	111	29370½	149.83
North Ward "	348	3	351	175	176	60906	305.70
Oaklands "	322	1	323	160	163	53459	269.52
Pembroke Street "	18	2	20	20	.....	2546	12.73
Quadra Street, North, "	304	1	305	150	155	49798	256.32
Rock Bay " (closed)	.....	.....	.....	.....	.....	296	12.33
South Park "	332	31	363	172	191	62819½	314.11
Spring Ridge "	191	.....	191	98	93	28565	145.72
West "	399	4	403	184	219	65355	329.45
Child Study Laboratory	18	2	20	14	6	2464	12.44
	5044	529	5573	2717	2856	901202	4648.00
Total, 1915-1916	5021	596	5617	2817	2800	884752	4535.28
Grand total for all *City Schools*, 1916-1917	33353	2960	36313	17867	18446	5782887½	30477.97
Grand total for all *City Schools*, 1915-1916	32278	3214	35492	17954	17538	5728371½	28895.41

TABLE A.—Attendance of Pupils at *Rural Municipality Schools*, Details of Management, &c., 1916-1917.

RURAL MUNICIPALITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Burnaby:															
Armstrong Avenue	200	199	27	.....	27	10	17	4792½	24.08	298	Yes.	2	6	30	38
Barnet	200	199	14	1	15	8	7	1944½	9.77	125	"	2	8	20	30
Douglas Road	200	197½	31	.....	31	13	18	4605	23.32	295	"	3	10	19	32
Edmond's Street, 1st Division	200	199	27	4	31	14	17	4362	21.92	254	No.	4	5	23	32
" 2nd "	200	199	55	.....	55	27	28	7128½	35.82	398	Yes.	3	.....	12	15
" 3rd "	200	199	36	.....	36	14	22	6062	30.46	369	"	2	3	16	21
" 4th "	200	199	39	.....	39	19	20	6652½	33.43	365	"	2	3	13	18
" 5th "	200	199	45	1	46	24	22	7645½	38.42	470	"	2	2	17	21
" 6th "	200	199	43	.....	43	17	26	6898	34.66	419	"	3	3	19	25
" 7th "	200	199	40	.....	40	25	15	5693½	28.61	376	"	3	3	25	31
Gilmore Avenue, 1st Division	200	199	25	3	28	14	14	5710	28.69	297	"	6	16	131	153
" 2nd "	200	199	45	1	46	21	25	7150	35.92	421	"	2	4	98	104
" 3rd "	200	199	48	.....	48	24	24	7715½	38.77	428	"	3	4	3	10
" 4th "	200	199	40	.....	40	14	26	8103½	40.72	437	"	2	4	98	104
" 5th "	200	199	51	.....	51	32	19	8169½	41.05	443	"	2	4	99	105
" 6th "	200	199	53	.....	53	21	32	8007½	40.24	448	"	3	6	15	24
" 7th "	200	196	48	.....	48	25	23	7523½	38.38	421	"	3	6	21	30
" 8th "	200	196	53	.....	53	28	25	7991½	40.77	449	"	3	6	36	45
Hamilton Road	200	199	30	1	31	13	18	3906	19.62	232	"	3	4	15	22
Howard Avenue	200	199	36	.....	36	18	18	5583	28.05	344	"	2	15	54	71
Inman Avenue, 1st Division	200	199	33	.....	33	14	19	5647	28.37	302	"	2	10	69	81

Inman Avenue, 2nd Division	200	199	36	.....	36	19	17	6369	32.01	371	Yes.	2	9	72	83
Kingsway, East, 1st Division	200	199	31	.....	31	19	12	5233	26.29	275	"	4	11	63	78
" 2nd "	200	199	36	.....	36	19	17	6037½	30.34	344	"	3	7	68	78
Kingsway, West, 1st Division	200	198½	21	4	25	17	8	4481½	22.57	245	"	3	5	3	11
" 2nd "	200	198½	33	1	34	17	17	4948	24.92	275	"	2	5	9	16
" 3rd "	200	198½	26	....	26	11	15	5302½	26.71	284	"	2	7	12	21
" 4th "	200	198½	45	.....	45	27	18	7886½	39.73	434	"	2	8	29	39
" 5th "	200	198½	46	.....	46	24	22	7180½	36.17	403	"	2	7	21	30
" 6th "	200	198½	35	.....	35	21	14	6183½	31.15	344	"	3	6	37	46
" 7th "	200	198½	47	.....	47	25	22	6276½	31.63	366	"	3	6	48	57
Nelson Avenue, 1st Division	200	199	36	.....	36	20	16	5609½	28.19	356	"	2	9	69	80
" 2nd "	200	199	32	.....	32	13	19	5967½	29.99	326	"	2	6	66	74
" 3rd "	200	199	36	.....	36	23	13	6190	31.10	332	No.	2	6	65	73
Riverway, East, 1st Division	200	199	22	1	23	8	15	4023½	20.21	227	Yes.	3	8	35	46
" 2nd "	200	199	30	.....	30	10	20	4547	22.84	250	"	3	8	35	46
Schou Street, 1st Division	200	199	26	1	27	13	14	4256	21.38	246	"	2	13	29	44
" 2nd "	200	199	28	.....	28	16	12	3646	18.32	221	"	2	13	28	43
Second Street	200	199	35	.....	35	17	18	4806	24.15	307	"	2	6	47	55
Sperling Avenue	200	200	28	4	32	18	14	3360½	16.80	200	No.	2	11	26	39
Chilliwack:			1448	22	1470	732	738	233595½	1175.57						
Atchelitz, 1st Division	200	183	13	7	20	7	13	2506	13.69	200	Yes.	3	5	43	51
" 2nd "	200	183	29	.....	29	20	9	3737	20.42	203	"	2	6	37	45
" 3rd "	200	183	31	2	33	22	11	4165½	22.76	204	"	2	6	41	49
Camp Slough, 1st Division	200	183	17	.....	17	7	10	2746½	15.01	99	"	3	9	17	29
" 2nd "	200	178½	23	.....	23	10	13	3222½	18.05	188	No.	2	9	16	27
Cheam, 1st Division	200	200	22	2	24	13	11	3716	18.58	212	Yes.	2	13	15	30
" 2nd "	200	199½	34	.....	34	18	16	5503½	27.59	289	"	2	7	8	17
Chilliwack, East, 1st Division	200	200	19	.....	19	8	11	2814½	14.07	177	"	2	9	49	60
" 2nd "	200	200	29	.....	29	15	14	4521	22.61	292	"	2	7	48	57
Fairfield Island	200	193	45	.....	45	26	19	5829½	30.20	317	"	2	10	7	19
Lotbiniere, 1st Division	200	196½	26	.....	26	13	13	4102	20.88	263	"	3	7	145	155
" 2nd "	200	196½	36	.....	36	15	21	5460½	27.79	349	"	3	7	142	152

TABLE A.—Attendance of Pupils at *Rural Municipality Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL MUNICIPALITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Chilliwack.—*Concluded:*															
Parson's Hill	200	197½	20	.....	20	8	12	1836½	9.29	145	Yes.	2	1	4	7
Promontory Flats	200	200	16	.....	16	9	7	3087	15.43	173	"	2	7	17	26
Rosedale, 1st Division	200	191	21	1	22	9	13	3497	18.30	191	No.	3	11	15	29
" 2nd "	200	197	36	.....	36	20	16	5076½	25.77	300	"	2	9	1	12
" 3rd "	200	193	51	.....	51	30	21	7077½	36.67	412	Yes.	2	9	6	17
Sardis, 1st Division	200	199	33	4	37	17	20	5612½	28.20	294	"	3	16	42	61
" 2nd "	200	198	44	.....	44	20	24	6345	32.04	355	"	3	16	103	122
" 3rd "	200	198	41	2	43	22	21	6365½	32.14	378	"	2	5	28	35
Strathcona, 1st Division	200	182	29	.....	29	12	17	4197½	23.06	248	"	3	16	19	38
" 2nd "	200	180	31	.....	31	16	15	3565	19.81	211	No.	2	10	2	14
Sumas	200	191	10	.....	10	6	4	1334½	6.98	80	Yes.	2	5	9	16
Vedder Creek	200	198½	10	.....	10	8	2	2077	10.46	113	"	2	8	17	27
Yarrow	200	200	7	.....	7	5	2	1526½	7.63	101	"	2	5	15	22
Coldstream:			673	18	691	356	335	99922½	517.43						
Coldstream	200	198½	28	.....	28	12	16	4235	21.33	282	"	4	10	72	86
Lavington	200	191½	20	.....	20	8	12	2476	12.93	166	"	2	22	91	115
Coquitlam:			48	.....	48	20	28	6711	34.26						
Blue Mountain, 1st Division	200	198	15	.....	15	8	7	2667	13.47	168	"	2	17	66	85
" 2nd "	200	198	21	.....	21	18	3	3567½	18.01	204	"	1	18	67	86
Coquitlam East	200	190	9	2	11	7	4	1643½	8.65	96	"	1	5	25	31
The Glen	200	187	13	1	14	7	7	2562½	13.70	139	"	1	9	5	15

Millside, 1st Division	200	190	15	.....	15	8	7	2314	12.18	160	Yes.	1	23	28	52
" 2nd "	200	190	23	.....	23	10	13	2713	14.28	175	"	1	25	31	57
Silver Valley	200	201	9	.....	9	5	4	1580½	7.86	90	"	1	7	41	49
Cowichan, North:			105	3	108	63	45	17048	88.15						
Chemainus, 1st Division	200	197½	24	1	25	11	14	3901½	19.75	218	No.	5	29	13	47
" 2nd "	200	199	30	.....	30	19	11	4822½	24.23	271	Yes.	2	18	14	34
" 3rd "	200	199	25	.....	25	18	7	3766	18.92	229	No.	3	19	6	28
Crofton	200	198½	17	.....	17	5	12	2724½	13.72	166	Yes.	3	13	2	18
Maple Bay	200	197	12	.....	12	11	1	1463	7.42	95	"	3	10	1	14
Quamichan	200	197	22	.....	22	8	14	3344	16.97	193	"	2	8	1	11
Somenos	200	198	19	.....	19	10	9	2802	14.15	165	"	2	12	7	21
Somenos Station	200	199	22	.....	22	8	14	2710	13.61	141	"	2	11	12	25
Westholme	200	198	22	1	23	8	15	2969½	14.99	180	"	3	12	7	22
Delta:			193	2	195	98	97	28503	143.76						
Annieville	200	198	33	.....	33	17	16	5189	26.20	351	"	2	9	25	36
Boundary Bay	200	184½	26	.....	26	14	12	3844½	20.83	136	"	2	18	34	54
Canoe Pass	200	199½	38	.....	38	19	19	6491½	32.53	300	"	3	13	26	42
Delta, East	200	199	22	.....	22	15	7	3017	15.16	196	"	3	18	20	41
Inverholme	200	200	14	....	14	7	7	2286	11.43	126	"	4	15	47	66
Ladner, 1st Division	200	198½	19	6	25	8	17	4540½	22.87	264	"	7	31	15	53
" 2nd "	200	198½	47	.....	47	22	25	7324½	36.89	439	"	2	12	5	19
" 3rd "	200	197½	38	.....	38	14	24	6834½	34.60	398	"	2	11	6	19
" 4th "	200	192½	40	1	41	21	20	6607½	34.32	401	"	2	9	7	18
Sunbury	200	199	21	1	22	15	7	3069	15.42	190	"	2	11	17	30
Trenant	200	189½	29	.....	29	16	13	4083	21.01	248	"	2	16	8	26
Westham Island	200	200	20	1	21	11	10	3329½	16.64	210	"	2	14	4	20
Esquimalt:			347	9	356	179	177	56616½	287.90						
Esquimalt, 1st Division	200	200	27	5	32	13	19	5949	29.74	274	No.	2	32	39	73
" 2nd "	200	200	34	.....	34	17	17	5466½	27.33	282	Yes.	2	20	22	44
" 3rd "	200	200	32	.....	32	16	16	5666½	28.33	290	"	2	15	7	24
" 4th "	200	200	43	.....	43	24	19	7084	35.42	388	"	2	16	8	26
" 5th "	200	200	43	.....	43	19	24	7358	36.79	393	No.	1	24	18	43

TABLE A.—Attendance of Pupils at *Rural Municipality Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL MUNICIPALITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Esquimalt.—*Concluded:*															
Esquimalt, 6th Division	200	200	38	.....	38	15	23	6422½	32.11	355	Yes.	2	23	11	36
" 7th "	200	200	36	.....	36	23	13	6222	31.11	345	"	2	24	9	35
" 8th "	200	200	35	.....	35	22	13	5996½	29.98	327	"	2	18	36	56
" 9th "	200	200	48	.....	48	21	27	7443½	37.22	421	"	1	21	19	41
" 10th "	200	200	33	.....	33	15	18	6329	31.64	351	"	2	24	.....	26
" 11th "	200	200	40	.....	40	23	17	6092½	30.46	393	No.	2	17	13	32
" 12th "	200	200	51	.....	51	29	22	5980½	29 90	360	Yes.	2	17	8	27
" 13th "	200	200	43	.....	43	13	30	5255½	26.28	333	"	2	8	12	22
" 14th "	200	200	45	.....	45	24	21	6346½	31.73	390	"	2	.....	20	22
Kent:			548	5	553	274	279	87612½	438.04						
Agassiz, 1st Division	200	185	25	6	31	16	15	4770	25.78	282	"	3	14	116	133
" 2nd "	200	190½	38	.....	38	21	17	6296	33.05	360	"	2	13	154	169
" 3rd "	200	179½	41	.....	41	15	26	5600½	31.20	325	"	1	16	160	177
Harrison Hot Springs	200	189½	15	.....	15	5	10	2311	12.19	131	"	2	9	29	40
Harrison River	200	194	21	.....	21	11	10	3523½	18.16	231	No.	2	3	23	28
McBride	200	189	26	.....	26	15	11	3343	17.69	192	Yes.	1	3	24	28
Langley:			166	6	172	83	89	25844	138.07						
Aldergrove, 1st Division	200	190	23	.....	23	11	12	2977	15.67	197	"	3	4	19	26
" 2nd "	200	185	32	.....	32	14	18	5359½	28.97	297	"	2	4	22	28
Beaver	200	198	36	1	37	17	20	4310½	21.77	260	"	2	4	29	35
Belmont, 1st Division (Superior)	200	194½	16	15	31	9	22	4840½	24.89	152	No.	2	3	41	46

Belmont, 2nd Division	200	194	28	1	29	12	17	4402½	22.69	247	Yes.	3	4	49	56
" 3rd "	200	194	35	.....	35	15	20	5430½	27.99	325	"	2	4	30	36
Glen Valley	200	200	26	1	27	16	11	3204½	16.02	221	"	2	6	24	32
Glenwood	200	199½	17	.....	17	11	6	2485½	12.45	137	"	2	2	18	22
Langley, 1st Division	200	198	23	1	24	11	13	3776	19.07	213	"	2	14	20	36
" 2nd "	200	198½	30	.....	30	13	17	4741	23.88	271	"	3	7	36	46
" 3rd "	200	198½	34	.....	34	24	10	3486	17.56	222	"	2	4	79	85
Langley, East	200	199	29	.....	29	11	18	3979⅓	19.99	248	"	2	8	77	87
Langley Prairie, 1st Division	200	199	32	.....	32	13	19	4856½	24.40	270	"	2	5	20	27
" 2nd "	200	192	46	.....	46	28	18	6951	36.20	393	"	2	3	29	34
Langley, West	200	190	19	1	20	10	10	2301	12.11	173	"	2	10	27	39
Lochiel	200	195	13	.....	13	4	9	1904½	9.76	104	"	2	1	9	12
Milner, 1st Division	200	198	29	2	31	16	15	4358	22.01	233	"	3	3	37	43
" 2nd "	200	198	18	.....	18	6	12	4057	20.48	201	"	2	1	38	41
Otter	200	187	20	.....	20	9	11	2776½	14.85	179	"	2	4	18	24
Patricia	200	198	28	1	29	11	18	4441½	22.43	272	"	3	.....	23	26
Springbrook	200	199	27	...	27	16	11	4446	22.34	258	"	3	16	55	74
			561	23	584	277	307	85085	435.53						
Maple Ridge:															
Albion	200	193	37	1	38	22	16	3430½	17.78	204	"	1	7	9	17
Hammond, 1st Division	200	198½	27	....	27	13	14	4131⅓	20.81	258	"	2	6	22	30
" 2nd "	200	196½	38	.....	38	18	20	5796½	29.49	263	"	2	1	23	26
Haney, 1st Division (Superior)	200	198⅓	15	7	22	12	10	3536	17.81	219	"	3	3	9	15
" 2nd "	200	197½	26	.....	26	14	12	4010	20.30	220	"	3	3	3	9
" 3rd "	200	196½	36	1	37	20	17	5357	27.26	285	"	3	2	93	98
Lillooet, South	200	198	18	.....	18	7	11	2684	13.55	155	"	1	6	10	17
Maple Ridge, 1st Division (Superior)	200	198½	14	14	28	7	21	4655½	23.45	196	"	6	7	151	164
" 2nd "	200	199½	21	2	23	7	16	4257	21.34	235	"	4	6	104	114
" 3rd "	200	199½	44	...	44	23	21	6116½	30.66	340	"	6	9	153	168
Alexander Robinson, 1st Division	200	199⅓	20	1	21	12	9	2841	14.24	165	"	2	6	19	27
" 2nd "	200	199½	21	1	22	7	15	3050	15.28	173	"	2	4	23	29
Ruskin, 1st Division	200	199	14	3	17	10	7	2434	12.23	140	No.	1	4	18	23
" 2nd "	200	197	18	1	19	11	8	2667½	13.54	169	"	1	5	30	36

TABLE A.—Attendance of Pupils at *Rural Municipality Schools*, Details of Management, &c., 1916-1917.—*Continued.*

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Maple Ridge.—*Concluded:*															
Webster's Corners	200	199	18	2	20	12	8	3391	17.04	178	Yes.	1	3	28	32
Whonnock, 1st Division	200	199	28	.....	28	9	19	4338	21.79	225	"	3	8	80	91
" 2nd "	200	199	27	.....	27	15	12	4247	21.34	271	"	1	1	26	28
			422	33	455	219	236	66943	337.91						
Matsqui:															
Aberdeen	200	199	30	2	32	17	15	5080	25.53	300	"	1	10	23	34
Bradner, 1st Division	200	197	25	.....	25	11	14	4512½	22.90	251	No.	2	6	24	32
" 2nd "	200	197	30	....	30	15	15	4211½	21.38	248	Yes.	2	6	24	32
Clayburn, 1st Division	200	196	22	3	25	13	12	4207½	21.44	266	"	1	9	257	267
" 2nd "	200	197	34	.....	34	12	22	5193½	26.36	330	"	1	9	249	259
Dunach	200	197	18	.....	18	9	9	2346½	11.91	167	"	2	9	1	12
Glenmore	200	196	23	1	24	9	15	3707½	18.91	215	"	1	8	110	119
Jubilee	200	197	7	.....	7	3	4	1727	8.77	78	"	1	2	36	39
Matsqui, 1st Division	200	189½	22	.....	22	5	17	4481½	23.64	253	"	1	14	.....	15
" 2nd "	200	183½	28	.....	28	18	10	4254½	23.18	267	"	1	12	3	16
Mount Lehman, 1st Division (Superior)	200	199½	10	2	12	5	7	1847½	9.26	52	"	4	10	7	21
" 2nd "	200	198½	28	2	30	21	9	4879	24.58	303	"	6	14	13	33
Peardonville	200	199	26	1	27	14	13	3606½	18.12	243	"	1	16	9	26
Poplar	200	198	19	.....	19	11	8	2069	10.44	177	"	1	15	19	35
Ridgedale, 1st Division	200	198	21	.....	21	10	11	3589	18.13	221	"	1	9	33	43
" 2nd "	200	189	24	.....	24	14	10	3456½	18.28	239	"	1	9	18	28
			367	11	378	187	191	59169½	302.83						

Mission:															
Ferndale	200	190½	5	2	7	4	3	1064	5.58	64	Yes.	2	.....	1	3
Hatzic, 1st Division	200	197½	25	1	26	18	8	3424½	17.33	202	"	1	10	26	37
" 2nd "	200	194½	21	.....	21	18	3	3462½	17.80	213	"	1	9	36	46
Mission, 1st Division	200	193	38	.....	38	13	25	4936	25.57	305	"	1	14	7	22
" 2nd "	200	198	48	.....	48	26	22	6768½	34.18	370	"	1	6	25	32
" 3rd "	200	198	41	.....	41	19	22	5963	30.12	344	"	1	4	26	31
" 4th "	200	193	30	.....	30	17	13	4321½	22.39	277	"	1	5	17	23
" 5th "	200	198	44	2	46	24	22	7768	39.23	478	"	1	7	24	32
Silverdale	200	195	27	.....	27	17	10	4888	25.06	270	"	1	12	13	26
Silverhill	200	188	15	.....	15	10	5	2088	11.10	118	"	1	4	42	47
Stave Falls	200	197½	9	1	10	4	6	1915½	9.69	94	"	1	7	6	14
Stave Gardens	200	195	15	4	19	7	12	2330	11.95	168	"	1	8	20	29
Steelhead	200	181½	16	.....	16	7	9	1642	9.04	115	"	.....	2	25	27
Oak Bay:			334	10	344	184	160	50571½	259.04						
Oak Bay, 1st Division	200	200	27	8	35	13	22	5436	27.18	288	"	4	25	113	142
" 2nd "	200	197	28	.....	28	16	12	4703	23.87	280	"	3	18	64	85
" 3rd "	200	190½	35	1	36	19	17	4970½	26.09	278	"	3	14	62	79
" 4th "	200	190½	37	.....	37	17	20	5902½	30.98	372	"	3	8	23	34
" 5th "	200	190½	41	.....	41	16	25	5891½	30.92	338	"	1	8	18	27
" 6th "	200	190½	40	.....	40	21	19	6523	34.24	386	"	3	8	35	46
" 7th "	200	190½	54	.....	54	22	32	6901	36.22	417	"	2	10	60	72
" 8th "	200	190½	49	.....	49	29	20	6383	33.50	405	"	4	7	23	34
Willows, 1st Division	200	200	21	.....	21	8	13	3704	18.52	217	"	3	13	52	68
" 2nd "	200	190	38	.....	38	20	18	6045	31.81	350	"	3	15	63	81
" 3rd "	200	190½	41	.....	41	22	19	6517	34.20	395	"	3	14	81	98
" 4th "	200	190½	49	.....	49	23	26	6854	35.97	433	"	3	15	82	100
Peachland:			460	9	469	226	243	69830½	363.50						
Peachland, 1st Division	200	195	32	1	33	17	16	4464	22.89	282	"	2	28	6	36
" 2nd "	200	200	40	.....	40	22	18	6191½	30.95	348	"	3	25	45	73
Trepanier	200	177½	20	1	21	11	10	3032	17.08	162	"	2	4	8	14
			92	2	94	50	44	13687½	70.92						

TABLE A.—Attendance of Pupils at *Rural Municipality Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL MUNICIPALITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Penticton:															
Ellis, 1st Division	200	196	22	4	26	9	17	4596	23.45	270	Yes.	4	9	11	24
" 2nd "	200	201	35	1	36	15	21	5444½	27.08	275	"	2	4	105	111
" 3rd "	200	196	39	4	43	26	17	6575½	33.54	367	"	2	1	13	16
" 4th "	200	201	39	.....	39	23	16	6381½	31.74	349	No.	2	4	109	115
" 5th "	200	201	43	.....	43	28	15	5872	29.22	357	Yes.	2	.....	102	104
" 6th "	200	200½	40	.....	40	27	13	6532	32.57	361	"	2	1	100	103
" 7th "	200	201	45	.....	45	20	25	6868	34.16	418	"	2	5	112	119
" 8th "	200	201	42	.....	42	23	19	7095½	35.30	399	"	2	.....	24	26
" 9th "	200	201	41	.....	41	21	20	6731	33.48	380	"	2	1	32	35
" 10th "	99	100	29	.....	29	10	19	2655	26.55	138	"	1	1	7	9
Poplar Grove	200	197½	13	1	14	4	10	2134	10.80	118	"	2	4	12	18
Pitt Meadows:			388	10	398	206	192	60885	317.89						
Pitt Meadows	200	200	38	1	39	18	21	4696½	23.48	311	"	1	10	20	31
Richardson	200	199	17	5	22	12	10	2547	12.29	150	"	1	1	3	5
Point Grey:			55	6	61	30	31	7243½	35.77						
Eburne, 1st Division	200	199	22	2	24	7	17	4267	21.44	200	"	3	27	20	50
" 2nd "	200	199	40	.....	40	23	17	6937½	34.86	364	"	3	13	101	117
" 3rd "	200	199	40	.....	40	26	14	6615½	33.24	352	"	2	7	63	72
" 4th "	200	199	42	.....	42	26	16	7195	36.15	373	"	2	10	54	66
" 5th "	200	199	40	.....	40	19	21	6583	33.08	352	"	2	6	.....	8
" 6th "	200	199	41	.....	41	18	23	6874	34.54	366	"	3	6	6	15

Eburne, 7th Division	200	199	44	1	45	25	20	7004	35.19	347	Yes.	2	2	68	72
Kerrisdale, 1st Division	200	189½	30	2	32	13	19	5653	29.83	276	"	2	10	51	63
" 2nd "	200	189½	36	.....	36	16	20	5777	30.48	316	"	3	10	75	88
" 3rd "	200	189½	40	.....	40	24	16	5918½	31.23	378	"	2	9	62	73
" 4th "	200	189	48	.....	48	21	27	6534	34.57	381	"	2	5	63	70
" 5th "	200	185½	43	.....	43	29	14	5823½	31.39	363	"	2	10	75	87
Lord Kitchener, 1st Division	200	199	27	.....	27	18	9	4440½	22.31	162	"	4	14	23	41
" 2nd "	200	199	39	.....	39	16	23	6268½	31.50	345	"	2	8	10	20
" 3rd "	200	199	36	.....	36	23	13	5695	28 56	273	"	3	8	24	35
Magee, 1st Division	200	179	40	1	41	19	22	6405½	35.78	225	"	2	5	13	20
" 2nd "	200	179	42	.....	42	18	24	6738	37.64	280	"	2	7	93	102
" 3rd "	200	179	46	.....	46	28	18	6181	34.53	145	"	2	5	170	177
Queen Mary, 1st Division	200	199	24	3	27	14	13	4933	24.78	177	No.	3	12	12	27
" 2nd "	200	199	28	.....	28	15	13	5271½	26.48	231	Yes.	2	12	20	34
" 3rd "	200	199	35	.....	35	15	20	6196	31.14	288	"	3	6	22	31
" 4th "	200	199	39	.....	39	20	19	6111	30.70	327	"	2	7	52	61
" 5th "	200	199	39	.....	39	21	18	6170	31.00	368	No.	2	7	.....	9
Shaughnessy, 1st Division	200	199	31	3	34	17	17	5783	29.06	122	Yes.	2	11	11	24
" 2nd "	200	199	43	1	44	22	22	7616½	38.27	319	"	2	6	31	39
" 3rd "	200	199	43	.....	43	27	16	7411½	37.24	395	"	2	5	23	30
" 4th "	200	199	32	....	32	24	8	6382	32.07	334	"	3	5	39	47
" 5th "	200	199	37	.....	37	20	17	6314	31.72	270	"	2	5	28	35
" 6th "	200	199	42	.....	42	23	19	5972	30.01	250	"	2	8	19	29
Richmond:			1089	13	1102	587	515	179071	918.79						
Bridgeport, 1st Division	200	199	24	5	29	10	19	4901	24.62	207	"	4	18	47	69
" 2nd "	200	190	38	1	39	21	18	6233½	32.80	353	"	2	6	80	88
" 3rd "	200	190	48	....	48	23	25	6499½	34.20	424	"	2	4	47	53
" 4th "	200	190	33	.....	33	14	19	5624	29.60	297	"	2	4	47	53
" 5th "	200	190	41	.....	41	29	12	5846	30.76	74	"	2	.....	14	16
English, 1st Division	200	199	28	.....	28	16	12	4531	22.76	253	"	2	10	38	50
" 2nd "	200	199	28	.....	28	14	14	4718	23.70	223	"	2	10	46	58
Lulu	200	198	18	.....	18	13	5	2844	14.36	155	"	2	7	20	29

TABLE A.—Attendance of Pupils at *Rural Municipality Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL MUNICIPALITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Richmond.—*Concluded:*															
Mitchell	200	199	30	.....	30	20	10	5290½	26.58	300	Yes.	2	10	12	24
Steveston, 1st Division	200	197½	35	.....	35	17	18	4769½	24.14	292	"	2	15	146	163
" 2nd "	200	199	44	4	48	28	20	6670	33.51	392	"	2	9	145	156
" 3rd "	200	199	39	.....	39	26	13	5841½	29.35	350	"	2	9	148	159
Trites	200	197½	13	.....	13	8	5	1931	9.77	118	"	2	5	2	9
Saanich:			419	10	429	239	190	65690½	336.15						
Cadboro Bay	200	193	17	.....	17	8	9	2576	13.24	125	"	2	6	10	18
Cedar Hill, 1st Division	200	198	31	2	33	21	12	5117½	25.84	222	"	3	5	4	12
" 2nd "	200	197	30	.....	30	20	10	5330½	27.05	237	"	2	4	4	10
" 3rd "	200	194	19	2	21	10	11	2979	15.35	176	"	2	5	.....	7
Craigflower, 1st Division	200	200	16	.....	16	6	10	2809	14.04	157	"	2	17	132	151
" 2nd "	200	200	31	.....	31	17	14	5264½	26.32	321	"	2	8	128	138
" 3rd "	200	198	43	.....	43	15	28	6031	30.45	345	"	2	7	127	136
" 4th "	200	198	48	.....	48	26	22	6384	32.24	529	"	2	7	129	138
Gordon Head, 1st Division	200	197	22	3	25	13	12	4479½	22.73	249	"	2	8	8	18
" 2nd "	200	197	22	.....	22	7	15	3741	18.98	86	"	4	7	21	32
Keating, 1st Division	200	199	33	2	35	15	20	4141½	20 81	259	"	3	11	7	21
" 2nd "	200	199	29	.....	29	13	16	4452½	22.37	274	"	3	11	7	21
Model, 1st Division	200	196	40	.....	40	20	20	6595	33.04	341	No.	.....	.....	105	105
" 2nd "	200	196	41	.....	41	18	23	7545	38.49	407	Yes.	.....	.....	104	104
MacKenzie Avenue, 1st Division	200	197½	26	1	27	11	16	3607	18.26	215	"	4	12	155	171

MacKenzie Avenue, 2nd Division	200	197½	29	.....	29	14	15	4733½	23.96	284	Yes.	3	11	154	168
" 3rd "	200	195½	41	.....	41	21	20	5456½	27.91	313	"	3	11	168	182
" 4th "	200	195½	37	.....	37	15	22	5034	25.76	303	"	3	12	150	165
North Dairy, 1st Division	200	196½	28	.....	28	11	17	3899	19.82	162	"	3	11	83	97
" 2nd "	200	196½	24	.....	24	16	8	4671½	23.77	261	"	5	6	164	175
" 3rd "	200	196½	35	.....	35	23	12	4295½	21.85	262	"	3	2	179	184
Prospect Lake	200	199	21	.....	21	13	8	3025½	15.20	172	"	2	11	12	25
Royal Oak, 1st Division	200	195½	21	.....	21	8	13	3145½	16.09	179	"	2	12	3	17
" 2nd "	200	194½	22	.....	22	17	5	3654½	18.78	224	"	2	5	6	13
Saanichton, 1st Division	200	195	16	1	17	7	10	3134½	16.07	183	"	4	7	7	18
" 2nd "	200	194½	22	.....	22	12	10	2933½	15.08	220	"	4	7	8	19
Saanich, West, 1st Division	200	199	29	1	30	15	15	5231½	26.28	280	"	3	18	86	107
" 2nd "	200	199	27	.....	27	16	11	3804½	19.11	212	"	3	16	69	88
Strawberry Vale, 1st Division	200	200	29	.....	29	13	16	4955½	24.77	292	"	3	9	57	69
" 2nd "	200	200	36	.....	36	21	15	4962	24.31	311	"	3	8	9	20
Tillicum Road	200	200	29	.....	29	17	12	4383	21.91	298	"	2	12	109	123
Tolmie, 1st Division	200	200	24	6	30	17	13	4978½	24.89	295	"	4	17	13	34
" 2nd "	200	197	39	.....	39	23	16	6196½	31.45	383	"	3	3	3	9
" 3rd "	200	200	42	.....	42	21	21	7042	35.21	431	"	3	6	.....	9
" 4th "	200	200	33	.....	33	13	20	5822½	29.19	348	"	3	3	. . .	6
" 5th "	200	200	36	.....	36	16	20	5990	29.95	386	"	3	1	2	6
" 6th "	200	200	34	.....	34	19	15	5948	29.74	362	"	2	2	8	12
" 7th "	200	200	34	.....	34	10	24	5835	29.17	346	"	3	2	9	14
" 8th "	200	187½	35	.....	35	21	14	5659	30.18	383	"	3	3	1	7
" 9th "	200	181½	38	.....	38	21	17	5613	30.89	369	"	3	7	5	15
" 10th "	200	179	38	.....	38	21	17	4257	23.50	274	"	3	7	12	22
" 11th "	200	177½	39	.....	39	20	19	4827	27.19	307	"	3	6	7	16
" 12th "	176	162	27	....	27	22	5	3822½	24.21	212	"	4	10	6	20
Salmon Arm:			1313	18	1331	683	648	204265	1046.05						
Canoe Creek, North	200	199½	50	1	51	19	32	6001½	30.08	.....	"	2	.....	10	12
Canoe Creek, South	200	195	30	....	30	14	16	4424	22.68	269	"	1	2	53	56
Dolan's Corners	200	198	15	.....	15	7	8	2042	10.31	150	"	1	1	15	17

TABLE A.—Attendance of Pupils at *Rural Municipality Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL MUNICIPALITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Salmon Arm.—*Concluded.*															
Gleneden	200	188	30	.....	30	17	13	3916½	20.83	237	Yes.	.....	7	3	10
Salmon Arm, West, 1st Division	200	199	31	3	34	15	19	5135	25.80	319	"	1	1	208	210
" 2nd "	200	198½	27	.....	27	15	12	3914	19.71	243	"	1	1	205	207
Spallumcheen :			183	4	187	87	100	25433	129.41						
Bennett	200	198	15	3	18	6	12	2984½	15.07	174	"	2	1	14	17
Hullcar	200	199	17	1	18	10	8	2529	12.70	170	"	2	1	11	14
Knob Hill	200	198½	26	.....	26	17	9	3528	17.77	231	"	2	4	16	22
Lansdowne	200	198½	15	1	16	9	7	1714	8.63	108	"	2	....	2	4
Larkin	200	198	17	1	18	7	11	2409½	12.16	174	"	2	8	73	83
Otter Lake	200	199	25	.....	25	13	12	3433	17.25	170	"	2	9	59	70
Pleasant Valley	200	196½	21	.....	21	11	10	3499	17.80	196	"	2	8	21	31
Sumas :			136	6	142	73	69	20097	101.38						
Huntingdon, 1st Division	200	196½	28	1	29	14	15	4577	23.29	262	"	2	1	85	88
" 2nd "	200	194	24	....	24	10	14	3437½	17.71	204	"	2	2	27	31
Kilgard	200	172	16	.....	16	12	4	1807½	10.51	113	"	1	6	5	12
Musselwhite	200	194	19	.....	19	13	6	2441	12.58	173	"	1	3	42	46
Straiton	200	198	14	....	14	7	7	1428	7.21	89	"	1	3	13	17
Sumas, Upper	200	185½	16	.....	16	6	10	1894½	10.21	122	"	1	4	25	30
Summerland :			117	1	118	62	56	15585½	81.51						
Central, 1st Division	200	199	24	6	30	18	12	4728½	23.76	296	No.	3	12	164	179

Central, 2nd Division	200	199	39	.....	39	18	21	5942½	29.86	335	Yes.	2	10	210	222
" 3rd "	200	198	48	1	49	23	26	7204½	36.38	399	"	2	11	146	159
" 4th "	200	199	44	.....	44	24	20	6529½	32.81	368	"	2	11	187	200
" 5th "	200	200	22	.....	22	12	10	2584	12.92	148	"	2	6	54	62
Garnett Valley	200	200	11	2	13	9	4	2121½	10.60	98	"	2	2	51	55
Trout Creek	200	200	12	3	15	7	8	2656½	13.28	143	"	2	5	42	49
			200	12	212	111	101	31767	159.61						
Surrey:															
Anniedale	200	193	20	.....	20	7	13	2562½	13.27	182	"	2	1	18	21
Clayton	200	197	14	.....	14	4	10	2168	11.00	140	"	2	.....	27	29
Cloverdale, 1st Division (Superior)	200	196	6	14	20	6	14	2666½	13.60	60	No.	2	1	1	4
" 2nd "	200	196	19	7	26	11	15	3746	19.11	221	Yes.	3	.....	12	15
" 3rd "	200	195½	24	.....	24	15	9	5870½	30.02	357	"	2	1	37	40
" 4th "	200	195½	26	.....	26	13	13	4776	24.42	183	"	2	1	45	48
Crescent Beach	200	196½	19	.....	19	13	6	2600	13.23	157	"	3	8	11	22
Hall's Prairie, 1st Division	200	197	20	1	21	9	12	3421½	18.89	194	"	3	1	171	175
" 2nd "	200	196½	27	1	28	14	14	4211½	21.43	245	"	2	1	174	177
Hjorth Road	200	194	9	.....	9	6	3	1395	7.19	90	"	2	3	22	27
Johnston Road	200	198	26	.....	26	15	11	3463½	17.49	190	"	3	6	53	62
Kensington, East	200	197	15	.....	15	8	7	1964	9.47	150	"	2	1	35	38
Kensington Prairie, 1st Division	200	197	22	1	23	11	12	3532	17.92	210	No.	2	1	13	16
" 2nd "	200	195	30	.....	30	15	15	3596	18.44	263	Yes.	2	1	17	20
Mud Bay	200	197	25	6	31	18	13	3587½	18.71	265	"	3	1	41	45
Newton	200	198	25	2	27	12	15	3873½	19.56	202	"	3	8	39	50
Port Mann	200	195	21	.....	21	13	8	2834½	14.53	192	"	2	1	33	36
Scott Road	200	196½	21	.....	21	13	8	2678	13.11	109	"	3	1	23	27
Springdale	200	197	39	.....	39	18	21	4589½	23.29	390	"	2	3	47	52
Strawberry Hill	200	198	22	.....	22	11	11	2911½	14.70	205	"	2	2	15	19
Surrey Centre	200	199	19	1	20	9	11	3534	17.75	172	"	2	2	28	32
Tynehead, 1st Division	67	28	.....	.....	.....	.....	.....	160	5.71	20	"	1	.....	.....	1
" 2nd "	200	198	23	1	24	18	6	3083½	15.57	190	"	3	3	62	68
Westminster, South	200	199	35	.....	35	24	11	3771½	18.95	292	"	3	2	68	73

TABLE A.—Attendance of Pupils at *Rural Municipality Schools*, Details of Management, &c., 1916-1917.—*Continued.*

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Surrey—*Concluded.*															
White Rock, 1st Division	200	198	30	.....	30	14	16	4808	24.28	270	Yes.	3	3	53	59
" 2nd "	200	196	35	1	36	20	16	4451	22.70	289	"	2	2	56	60
Vancouver, North :			572	35	607	317	290	86255½	444.34						
Capilano, 1st Division	200	199	18	.....	18	8	10	2912	14.63	160	"	2	8	146	156
" 2nd "	200	199	17	.....	17	8	9	2934	14.67	166	"	1	8	86	95
Keith Lynn, 1st Division	200	199	16	.....	16	8	8	2736	13.74	162	"	1	5	80	86
" 2nd "	200	199	18	.....	18	11	7	2290	11.51	152	"	1	7	38	46
Lynn Valley, 1st Division	200	198½	36	.....	36	14	22	5429½	23.35	259	"	1	17	118	136
" 2nd "	200	199	41	.....	41	24	17	5839½	29.34	316	"	1	16	61	78
" 3rd "	200	199	38	.....	38	19	19	5914½	29.72	314	"	1	16	51	68
" 4th "	200	199	29	.....	29	16	13	5361	26.92	292	"	1	12	80	93
" 5th "	200	199	27	.....	27	12	15	4627½	23.25	248	"	1	13	57	71
North Star, 1st Division	200	199	19	.....	19	5	14	3117	15.66	168	"	1	13	106	120
" 2nd "	200	199	30	.....	30	16	14	5383½	27.05	288	"	1	9	48	58
" 3rd "	200	199	36	.....	36	23	13	4988½	25.06	272	"	1	8	19	28
Vancouver, South :			325	.....	325	164	161	51533	254.90						
Brock, 1st Division	200	194½	20	2	22	14	8	4737½	24.35	178	No.	3	6	15	24
" 2nd "	200	194½	30	4	34	17	17	5491½	28.23	272	Yes.	2	1	9	12
" 3rd "	200	194½	35	.....	35	21	14	6700	34.44	362	"	2	.....	5	7
" 4th "	200	194½	36	.....	36	16	20	6527	33.55	357	"	2	.....	12	14
" 5th "	200	194½	37	.....	37	17	20	6244	32.10	370	"	2	.....	6	8

Brock, 6th Division	200	194½	46	.....	46	23	23	7064½	36.32	380	Yes.	2	.....	16	18
" 7th "	200	194½	39	.....	39	20	19	6680½	34.34	375	"	2	.....	9	11
Carleton, 1st Division	200	194½	36	5	41	18	23	7204½	37.04	371	"	8	8	56	72
" 2nd "	200	194½	28	.....	28	10	18	4962	25.51	287	"	2	1	22	25
" 3rd "	200	194½	37	1	38	14	24	6472½	33.28	357	"	5	4	21	30
" 4th "	200	194½	40	.....	40	21	19	6922	35.58	372	"	3	.....	7	10
" 5th "	200	194½	38	1	39	24	15	7070	36.34	386	"	2	1	34	37
" 6th "	200	194½	38	.....	38	12	26	6409	32 95	333	"	2	1	17	20
" 7th "	200	194½	42	.....	42	19	23	7331½	37.69	402	"	2	1	22	25
" 8th "	200	194½	38	.....	38	21	17	6525	33.54	356	"	2	.....	35	37
" 9th "	200	194	40	....	40	20	20	7208½	37.15	394	"	2	.....	23	25
" 10th "	200	194½	44	.....	44	21	23	6806	34.99	384	No.	2	.....	50	52
" 11th "	200	194½	39	1	40	17	23	5468	28.11	314	Yes.	2	.....	59	61
" 12th "	200	194½	52	.....	52	21	31	7786	40.03	436	"	3	....	30	33
Champlain	200	194	22	2	24	13	11	3245½	16.72	185	"	1	4	47	52
Connaught, 1st Division	200	194½	28	.....	28	15	13	4067½	20.91	237	"	3	6	145	154
" 2nd "	200	194½	26	.....	26	11	15	3951½	20.31	224	"	3	5	8	16
Moberly, 1st Division	200	194½	26	.....	26	11	15	4249½	21.84	161	"	5	12	97	114
" 2nd "	200	194½	32	.....	32	20	12	5247	26.97	282	No.	2	10	95	107
" 3rd "	200	194½	32	.....	32	20	12	5167	26.56	280	Yes.	2	10	95	107
" 4th "	200	194½	48	.....	48	28	20	7982	41.03	383	"	2	5	96	103
" 5th "	200	194½	36	.....	36	18	18	6755½	34.73	367	"	2	10	95	107
" 6th "	200	194½	31	.....	31	12	19	4838	24.87	246	"	2	10	95	107
" 7th "	200	194½	43	.....	43	25	18	6105½	31.39	351	"	2	9	123	134
" 8th "	200	194½	22	1	23	12	11	3735½	19.20	205	"	4	5	19	28
Richard McBride, 1st Division	200	194½	17	2	19	9	10	4386	22.55	231	"	5	10	571	586
" 2nd "	200	194½	41	.....	41	17	24	7322	37.64	351	"	2	7	207	216
" 3rd "	200	194½	43	2	45	22	23	8003	41.14	424	"	2	7	215	224
" 4th "	200	194½	38	.....	38	17	21	7357½	37.82	395	"	2	7	207	216
" 5th "	200	195½	43	.....	43	20	23	7315	37.60	396	"	2	7	205	214
" 6th "	200	194½	46	.....	46	19	27	6790½	34.91	367	"	2	7	206	215
" 7th "	200	194½	42	.....	42	22	20	7183½	36.93	388	"	2	7	209	218

TABLE A.—Attendance of Pupils at *Rural Municipality Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL MUNICIPALITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Vancouver, South.—*Continued:*															
Richard McBride, 8th Division	200	194½	41	.....	41	23	18	6974½	35.85	344	Yes.	2	4	201	207
" 9th "	200	194½	42	.....	42	20	22	5203	26.75	307	"	2	8	208	218
" 10th "	200	194½	45	.....	45	23	22	6900½	35.47	392	"	2	8	211	221
Sir Alexander Mackenzie, 1st Division	200	194½	36	5	41	21	20	7482	38.46	162	No.	3	12	109	124
" 2nd "	200	194½	44	.....	44	21	23	6966	35.81	295	Yes.	2	1	61	64
" 3rd "	200	194½	42	.....	42	18	24	7299	37.52	371	No.	2	1	61	64
" 4th "	200	194½	38	.....	38	16	22	6046	31.08	333	Yes.	2	2	63	67
" 5th "	200	194½	42	.....	42	18	24	7705	39.61	425	"	2	1	26	29
" 6th "	200	194½	38	.....	38	22	16	6594	33.90	364	"	2	1	11	14
" 7th "	200	194½	37	.....	37	23	14	6610½	33.98	361	"	2	1	10	13
" 8th "	200	194½	41	.....	41	25	16	6010½	30.90	337	"	2	1	14	17
" 9th "	200	194½	42	.....	42	19	23	6343½	32.61	353	"	2	1	5	8
" 10th "	200	194½	24	.....	24	11	13	6480	33.32	314	"	2	1	5	8
" 11th "	200	194½	43	.....	43	28	15	7104	36.52	410	"	2	1	30	33
" 12th "	200	194½	44	.....	44	22	22	6697½	34.43	391	"	2	1	16	19
" 13th "	117	116⅔	43	5	48	25	23	3303½	28.35	208	"	1	1	53	55
Norquay, 1st Division	200	194½	18	.....	18	6	12	2757½	14.17	130	No.	3	6	353	362
" 2nd "	200	194½	36	.....	36	13	23	6416½	32.99	304	Yes.	3	.....	142	145
" 3rd "	200	194½	46	.....	46	25	21	7795	40.07	433	"	2	.....	148	150
" 4th "	200	194½	40	.....	40	20	20	7078	36.39	381	"	3	.....	149	152
" 5th "	200	194½	37	.....	37	14	23	5549½	38.81	310	"	2	1	146	149

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TABLE A.—Attendance of Pupils at *Rural Municipality Schools*, Details of Management &c., 1916-1917.—*Concluded.*

RURAL MUNICIPALITY SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Vancouver, South.—*Concluded:*															
Tecumseh, 10th Division	200	194½	38	.....	38	30	8	6607	33.97	362	Yes.	2	4	83	89
" 11th "	200	194½	34	1	35	19	16	5316	27.33	232	"	2	4	50	56
" 12th "	200	194½	47	.....	47	24	23	7586	39.00	417	"	2	4	50	56
" 13th "	200	194½	48	2	50	30	20	7389	37.98	242	"	2	4	80	86
Van Horne, 1st Division	200	194½	40	1	41	17	24	6736	34.63	354	No.	3	4	21	28
" 2nd "	200	194½	53	.....	53	28	25	6798	34.95	371	Yes.	3	1	28	32
" 3rd "	200	194½	47	.....	47	21	26	6867½	35.30	378	"	2	5	5	12
" 4th "	143	138	.....	.....	.....	.....	.....	4633	33.57	252	"	2	5	7	14
" 5th "	200	194½	34	.....	34	19	15	5354½	27.53	295	"	2	1	5	8
" 6th "	200	194½	38	.....	38	22	16	5064	26.03	287	"	2	1	7	10
" 7th "	200	194½	38	.....	38	25	13	5030½	25.86	295	"	2	1	8	11
Wolfe, 1st Division	200	194½	43	.....	43	14	29	6774½	34.83	230	"	3	8	38	49
" 2nd "	200	194½	45	1	46	20	26	7462½	38.36	334	"	2	6	26	34
" 3rd "	200	194½	41	.....	41	18	23	7853½	40.37	437	"	2	6	28	36
" 4th "	200	194½	36	.....	36	19	17	7012½	36.05	322	"	2	5	37	44
" 5th "	200	194½	35	.....	35	17	18	7171½	36.87	395	"	2	6	19	27
" 6th "	200	194½	52	.....	52	29	23	8269	42.51	477	"	2	6	36	44
" 7th "	200	194½	47	.....	47	23	24	7721	39.69	436	"	2	6	22	30
" 8th "	200	194½	45	.....	45	19	26	7149½	36.76	416	"	2	6	35	43
" 9th "	200	194½	27	.....	27	12	15	5660½	29.10	319	"	2	6	44	52
" 10th "	200	194½	36	.....	36	21	15	5623	28.91	331	"	2	5	35	42

Wolfe, 11th Division	200	194½	28	....	28	15	13	5149	26.47	310	Yes.	2	6	44	52
" 12th "	117	116½	30	.....	30	14	16	3177	27.27	181	"	1	5	12	18
" 13th "	48	47½	32	.....	32	21	11	1303½	27.44	60	"	.....	5	4	9
Vancouver, West:			4265	48	4313	2161	2152	705113	3726.90						
Caulfeild	200	194½	21	1	22	12	10	1621½	8.33	92	"	1	10	8	19
Dundarave	200	199½	36	.....	36	20	16	4418	22.14	280	"	1	13	46	60
Hollyburn, 1st Division	200	199½	31	4	35	16	19	5507	27.60	289	"		27	246	274
" 2nd "	200	199½	29	.....	29	15	14	4548½	22.79	250	"	1	11	66	78
" 3rd "	200	199½	41	.....	41	24	17	6511½	32.64	365	"	1	11	33	45
			158	5	163	87	76	22606½	113.50						
Grand total, *Rural Municipality Schools*, 1916-1917			14984	321	15305	7755	7550	2376694½	12259.11						
" " 1915-1916			14998	352	15350	7870	7480	2411169½	12215.11						

TABLE A.—Attendance of Pupils at *Rural and Assisted Schools*, Details of Management, &c., 1916-1917.

RURAL AND ASSISTED SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Abbotsford, 1st Division (Superior)	200	190½	36	6	42	17	25	6197½	32.53	323	No.	4	12	3	19
" 2nd "	200	194	36	.....	36	16	20	5848½	30.14	334	Yes.	1	7	9	17
" 3rd "	200	195½	44	.....	44	21	23	7068½	36.15	412	"	1	8	13	22
" 4th "	200	192½	33	.....	33	18	15	4216½	21.90	259	"	1	8	5	14
Ainsworth	200	198	31	1	32	12	20	4390	22.17	265	"	2	8	24	34
Albert Canyon	200	196	14	1	15	12	3	2492	12.71	148	"	2	2	9	13
Albert Head	200	200	28	3	31	15	16	4879½	24.39	235	No.	2	7	70	79
Alert Bay	200	194½	20	1	21	10	11	2732	14.05	73	Yes.	3	8	12	23
Alexandria	200	200	10	1	11	7	4	1088½	5.44	74	"	1	3	10	14
Alice Arm	200	200	12	1	13	4	9	1925	9.62	96	"	1	5	79	85
Alice Siding	200	199	16	1	17	11	6	2123	10.69	115	No.	2	1	4	7
Allen Grove	200	200½	4	4	8	6	2	1412½	7.04	13	"	1	9	9	19
Anaconda	200	200	18	.....	18	13	5	3205	16.02	178	"	1	7	24	32
Anarchist Mountain	200	201	22	2	24	15	9	2657½	13.22	189	Yes.	1	10	34	45
Annable	200	200	25	.....	25	12	13	3615	18.07	184	"	1	4	7	12
Appledale	200	200	19	1	20	9	11	2337	11.68	124	"	2	13	24	39
Arrowhead	200	199	18	1	19	7	12	2935½	14.75	155	No.	3	. . .	1	4
Arrow Park, East	200	190	27	.....	27	13	14	3777	19.88	248	Yes.	.....	15	11	26
Arrow Park, West	200	195½	9	4	13	5	8	1735½	8.88	100	"	.....	12	10	22
Ashcroft, 1st Division (Superior)	200	179½	12	5	17	8	9	2668½	14.86	70	No.	3	3	4	10
" 2nd "	200	187	22	1	23	9	14	3653	19.53	169	Yes.	2	17	21	40
" 3rd "	200	188	32	1	33	18	15	4210	22.39	266	"	1	8	19	28

Ashton Creek	200	197	12	1	13	6	7	1323½	6.72	91	Yes.	1	.. ...	8	9
Aspen Grove	200	202	12	2	14	6	8	1824	9.03	100	"	... .	6	8	14
Athalmer	200	191	24	.....	24	11	13	3186½	16.68	149	"	1	.....	3	4
Atlin	200	198	6	3	9	5	4	1415	7.15	80	No.	....	3	9	12
Balfour	200	197	16	2	18	9	9	3028⅓	15.37	173	Yes.	3	8	30	41
Balmoral	200	174	24	1	25	11	14	2315	13.30	167	"	.....	6	5	11
Bamfield	200	107	9	.....	9	4	5	733½	6.85	31	"	.....	3	7	10
Barkerville	200	194½	12	.....	12	7	5	2048	10.53	110	"	.....	5	23	28
Barnston Island	200	197	11	.....	11	4	7	1988½	10.09	114	"	1	2	4	7
Barriere Power-house	175	170	9	.....	9	5	4	1156½	6.61	78	"	1	5	5	11
Barriere River	200	195	16	1	17	9	8	2556	13.10	146	"	1	15	89	105
Barriere Valley	200	169	12	1	13	2	11	1452	8.59	109	"	.....	3	.....	3
Baynes Lake	200	196½	44	.....	44	18	26	5315⅓	27.05	310	"	2	1	2	5
Bear Creek	200	196	10	.....	10	7	3	1505½	7.68	83	"	1	.....	.....	1
Beaton	200	198	15	.....	15	8	7	2190	11.06	144	"	1	8	16	25
Beaver Creek	200	192	15	1	16	7	9	2131	11.09	158	"	2	4	31	37
Beaver Lake	200	196	6	4	10	3	7	1281⅓	6.54	78	"	1	7	9	17
Beaver Point	200	191	18	.....	18	11	7	2549½	13.34	106	"	1	5	4	10
Begbie	200	181	22	.....	22	12	10	2544	14.06	152	"	2	7	6	15
Belford	200	196½	16	1	17	7	10	1880½	9.57	112	No.	2	8	14	24
Bella Coola	200	191½	23	.....	23	12	11	3070½	16.03	171	Yes.	1	10	37	48
Bella Coola, Lower	200	199	12	.....	12	9	3	2017	10.14	120	"	1	10	17	28
Bench	200	194½	20	1	21	10	11	3426	17.61	223	"	2	11	6	19
Beresford	200	194	36	.....	36	20	16	4742	24.44	302	"	3	19	21	43
Berrydale	200	179½	8	1	9	5	4	1330	7.45	60	"	1	4	11	16
Big Bar	83	70	10	.....	10	7	3	562	8.02	25	.....	.....	.....	.....	.....
Big Bar Mountain	162	152	10	.....	10	5	5	1395½	9.18	74	Yes.	1	10	61	72
Big Bar, Upper	200	190	9	1	10	4	6	1786⅓	9.40	95	"	1	9	41	51
Big Eddy	200	196	30	. ...	30	18	12	5382½	27.46	278	"	4	4	35	43
Blaeberry	200	198½	10	.....	10	5	5	1686½	8.51	186	"	.....	30	14	44
Blind Bay	200	194	10	1	11	8	3	1746	9.00	98	"	. ...	.....	28	28
Blueberry Creek	154	153½	8	1	9	7	2	1158	7.54	67	"	3	10	17	30

TABLE A.—Attendance of Pupils at *Rural and Assisted Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL AND ASSISTED SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Bonaparte Valley	200	160	11	1	12	6	6	1047⅓	6.55	69	Yes.	....	2	5	7
Boston Bar	57	58	11	2	13	5	8	560	9.65	32	"	.....	.....	.....	.....
Boswell	200	198½	8	4	12	7	5	1581	7.91	98	No.	1	11	33	45
Boundary Falls	200	197	11	1	12	8	4	1913⅓	9.71	109	Yes.	1	3	3	7
Bowen Island	200	194½	24	....	24	15	9	3643½	18.73	230	.....	.....	4	30	34
Bowie	200	199	12	2	14	7	7	2147½	10.79	99	No.	1	.....	6	7
Bowser	200	196	12	.....	12	5	7	1958	9.99	127	Yes.	1	16	8	25
Box Lake	200	199	25	1	26	11	15	3004½	15.09	176	"	2	9	5	16
Brechin, 1st Division	200	200	35	.....	35	17	18	4750	23.75	260	No.	2	12	4	18
" 2nd "	200	200	35	. ....	35	18	17	5543½	27.71	315	Yes.	2	9	2	13
" 3rd "	200	200	34	.....	34	20	14	4984½	24.92	288	"	2	9	2	13
Bridesville	200	181½	14	1	15	7	8	1753	9.66	102	"	2	3	17	22
Brilliant, 1st Division	200	191	31	.....	31	30	1	2849⅓	14.92	.....	"	2	12	20	34
" 2nd "	200	191	25	.....	25	25	.....	2418⅓	12.66	.....	"	2	12	20	34
Brisco	200	201	14	3	17	13	4	2219	11.04	140	"	1	1	.....	2
Britannia Beach, 1st Division	200	200	33	.....	33	18	15	5253	26.26	332	"	1	1	10	12
" 2nd "	200	195	24	.....	24	14	10	4000⅓	20.52	215	"	1	1	4	6
Britannia Mine	200	196½	51	. ....	51	26	25	7813½	39.76	440	"	1	4	156	161
Bull River Bridge	200	188½	42	1	43	17	26	5712	30.30	358	"	1	.....	10	11
Burgoyne Bay	200	198½	29	.....	29	16	13	4108½	20.69	314	"	1	.....	.....	1
Burtondale	200	189	22	.....	22	11	11	2882	15.25	173	"	.....	1	6	7
Cache Creek	200	184½	12	3	15	6	9	1953⅓	10.58	99	No.	1	3	. ....	4

Campbell Creek	200	193½	17	.....	17	8	9	1902½	9.83	117	Yes.	1	6	48	55
Campbell Range	200	147	16	1	17	11	6	1569	10.67	97	"	.....	.....	3	3
Campbell River	200	187	18	.....	18	10	8	2734½	14.62	169	"	2	10	25	37
Canford	200	199	23	.....	23	14	9	2699½	13.56	165	"	1	7	20	28
Canim Lake	112	113	8	.....	8	4	4	837	7.40	46	"	1	.....	.....	1
Canyon City	200	196	49	.....	49	21	28	5658	28.87	283	"	2	18	9	29
Cape Scott	200	187	19	3	22	10	12	3523	18.84	226	"	.....	18	15	33
Cariboo	107	107	9	1	10	6	4	751	7.01	50	No.	1	7	5	13
Carlin Siding	200	196	22	1	23	12	11	2509½	12.80	138	Yes.	1	12	18	31
Carson	200	189½	19	2	21	15	6	1725	9.10	69	"	2	3	10	15
Cartier	200	199	33	.....	33	21	12	3675½	18.47	262	"	2	3	25	30
Cascade	200	196½	27	1	28	14	14	4599	23.40	251	"	2	1	43	46
Castledale	200	199½	19	.....	19	6	13	2827½	14.17	172	No.	1	12	24	37
Castlegar	200	188	34	.....	34	16	18	5126	27.27	305	Yes.	2	9	41	52
Cedar, East	200	195	11	1	12	1	11	1692½	8.68	95	"	2	.....	.....	2
Cedar, North, 1st Division	200	200	20	2	22	10	12	3307½	16.53	204	No.	2	3	29	34
" 2nd "	200	199	36	.....	36	22	14	3992	20.96	260	Yes.	2	4	12	18
Cedar, South	200	198½	33	.....	33	21	12	5783	29.13	344	"	2	2	3	7
Chase, 1st Division	200	200	18	3	21	10	11	3847½	19.24	196	No.	1	7	6	14
" 2nd "	200	200	31	.....	31	10	21	4810½	24.05	259	Yes.	1	5	4	10
" 3rd "	200	194	38	.....	38	18	20	5786½	29.82	271	No.	1	3	2	6
Chase Creek	200	198	11	2	13	6	7	2035½	10.27	121	Yes.	.....	6	10	16
Chase Creek, Lower	200	191½	9	.....	9	7	2	1102	5.75	30	"	.....	11	2	13
Chase River, 1st Division	200	199	37	3	40	20	20	6884½	34.59	383	"	1	14	.....	15
" 2nd "	200	186½	28	.....	28	14	14	5178	27.76	154	"	1	12	.....	13
Chaumox	200	198	11	2	13	7	6	1577	7.96	90	"	.....	15	14	29
Cherry Creek Valley	200	196½	13	.....	13	6	7	1938½	9.86	104	"	2	9	6	17
Chief Lake	200	196	13	....	13	10	3	1800½	9.18	130	No.	....	5	.....	5
Chilco	200	188	16	3	19	11	8	2612	13.89	106	"	2	9	39	50
Chimney Creek	200	188	11	1	12	5	7	2182	11.61	120	Yes.	1	7	7	15
Christina Lake	200	199	9	3	12	4	8	1938½	9.74	107	No.	3	5	19	27
Chu Chua	200	196	17	.....	17	6	11	2356½	12.02	160	.....	.....	2	5	7

TABLE A.—Attendance of Pupils at *Rural and Assisted Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL AND ASSISTED SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Clayoquot	200	200	15	1	16	9	7	2863½	14.31	163	Yes.	1	4	17	22
Clearwater	200	193	10	2	12	5	7	1317½	6.82	90	"	1	20	27	48
Clinton	200	183	46	2	48	25	23	6675½	36.48	.....	No.	2	.....	.....	2
Clo-oose	200	188½	6	1	7	4	3	1035	5.49	66	Yes.	.....	8	21	29
Coal Creek, 1st Division	200	191	27	2	29	19	10	4266½	22.34	206	No.	2	21	4	27
" 2nd "	200	193½	43	.....	43	22	21	7281½	37.63	429	"	2	21	11	34
" 3rd "	200	163½	29	....	29	14	15	4323½	26.44	286	Yes.	2	24	10	36
Coalmont (closed)	83	77½	5	.....	5	2	3	278½	3.59	15	....	.....	2	4	6
Cobble Hill	200	196½	21	2	23	9	14	3454	17.58	209	Yes.	2	8	10	20
Cokato	200	194	25	.....	25	11	14	2762	14 24	169	"	1	29	62	92
Coltern	33	33	13	1	14	9	5	390½	11.83	13	"	1	3	4	8
Columbia Gardens	200	176	16	4	20	10	10	1818	10.33	124	"	1	.....	.....	1
Columbia Park (closed in Dec.)	83	82	2	.....	2	1	1	288½	3.52	13	"	1	1	.....	2
Colwood	200	199½	30	2	32	18	14	4440	22.25	308	"	2	20	46	68
Comox, 1st Division	200	199	24	2	26	10	16	4169	20.95	270	"	2	4	65	71
" 2nd "	200	199	19	.....	19	7	12	3117	15.66	230	"	2	4	44	50
Concord	200	185½	9	.....	9	2	7	1197½	6.45	78	"	1	4	7	12
Copper City	200	195½	6	2	8	2	6	1415½	7.24	68	No.	2	.....	9	11
Copper Creek	200	152	6	1	7	2	5	893	5.87	63	Yes.	.....	1	20	21
Copper Mountain	200	172	19	1	20	14	6	3002	17.45	154	"	1	2	1	4
Corbin	200	191	26	1	27	19	8	3096½	16.21	195	"	1	8	5	14
Cortes Island	200	187	10	1	11	3	8	1239	6.62	74	"	.....	1	7	8

Cowichan, 1st Division	200	198½	24	3	27	17	10	4171½	21.02	271	Yes.	2	17	12	31
" 2nd "	200	198½	30	.....	30	14	16	4146	20.89	282	"	2	11	10	23
Cowichan Lake	200	198	17	1	18	11	7	2510	12.68	133	"	1	5	7	13
Craigellachie	200	194	10	2	12	4	8	1791	9.23	115	"	1	1	19	21
Cranberry Marsh	200	198	15	3	18	8	10	2749	13.88	154	"	1	5	18	24
Crawford Bay	200	191	38	.....	38	18	20	3943½	20.65	192	"	1	.....	3	4
Crawford Creek	200	192	8	.....	8	3	5	1565	8.15	86	"	3	6	6	15
Crescent Valley	200	198	26	1	27	14	13	3810	19.24	212	"	2	15	35	52
Creston, 1st Division (Superior)	200	200	24	8	32	8	24	5388½	26.94	322	"	4	6	1	11
" 2nd "	200	200	42	.....	42	24	18	5255	26.22	335	No.	2	3	.....	5
" 3rd "	200	200	40	.....	40	24	16	6183½	30.91	366	Yes.	2	1	1	4
" 4th "	200	198	36	.....	36	22	14	5087	25.69	322	"	3	2	1	6
Criss Creek	200	191	6	2	8	5	3	1171	6.13	66	"	.....	20	21	41
Crowsnest	83	83	10	.....	10	3	7	563	6.78	26	.....	1	4	20	25
Cultus Lake	200	193	12	.....	12	7	5	1583	8.20	110	Yes.	1	11	50	62
Curzon	200	200	11	2	13	7	6	1725½	8.62	125	"	1	3	18	22
Darcy Mountain	200	193	5	2	7	2	5	1377½	7.13	75	No.	1	1	1	3
Deadwood	200	199	28	2	30	20	10	4901	24.63	203	Yes.	1	2	10	13
Deep Cove	200	195	32	.....	32	17	15	4504½	23.10	116	"	2	7	2	11
Deep Creek	200	198	11	.....	11	7	4	1908	9.63	105	"	2	.....	1	3
Deer Park	200	198	25	.....	25	17	8	2508	12.66	129	No.	1	13	76	90
Demars, West	200	196½	14	2	16	9	7	2223½	11.32	85	Yes.	1	1	12	14
Denman Island	200	196½	36	.....	36	21	15	4950½	25.19	330	"	1	20	6	27
Departure Bay	200	196½	17	.....	17	11	6	2843	14.47	163	"	1	8	12	21
Dewdney	200	195	38	1	39	24	15	5835	29.92	331	"	1	10	23	34
Diamond Crossing, 1st Division	200	200	21	1	22	8	14	3525	17.62	191	"	2	16	50	68
" 2nd "	200	199½	26	2	28	11	17	4354½	21.82	231	"	1	11	68	80
Discovery	200	190½	12	1	13	4	9	1790	9.39	100	"	.....	1	.....	1
Dragon Lake	200	186½	9	1	10	4	6	1509	8.09	100	No.	1	1	6	8
Duck Range	200	185	24	.....	24	9	15	1943	10.50	138	Yes.	1	2	6	9
Duhamel	200	192½	20	1	21	12	9	2822	14.66	177	"	2	20	4	26
Dunster	200	184½	13	.....	13	5	8	1197	6.44	78	No.	1	3	10	14

TABLE A.—Attendance of Pupils at *Rural and Assisted Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL AND ASSISTED SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Edgewood	200	198	13	.....	13	9	4	2599½	13.12	125	Yes.	1	1	12	14
Edith Lake	125	122	9	3	12	5	7	675½	5.53	22	"	1	.....	1	2
Eholt	200	200	20	.....	20	11	9	2640½	13.20	128	"	1	2	5	8
Elk Bridge	200	200	24	1	25	15	10	3540½	17.70	186	No.	2	.....	2	4
Elko	200	181½	32	.....	32	14	18	3935	21.68	281	Yes.	4	7	54	65
Elk Prairie	140	136	15	.....	15	8	7	1067½	7.85	88	"	1	7	5	13
Ellison	200	195	21	2	23	12	11	3259½	16.72	195	"	2	19	57	78
Empire Valley	155	130	10	1	11	3	8	1227	9.43	70	"	.....	5	5	10
Endako	200	181	7	4	11	4	7	1637	9.04	.....	"	1	2	.....	3
Enderby, North	200	197	16	.....	16	8	8	2939	14.92	175	"	2	7	15	24
Erickson	200	200	27	.....	27	15	12	3958½	19.79	.....	"	2	4	2	8
Erie	200	201	16	.....	16	7	9	2843½	14.15	174	No.	1	3	34	38
Errington	200	200	21	.....	21	4	17	3246½	16.23	188	Yes.	2	6	4	12
Essington	200	197	24	.....	24	15	9	3741	18.99	158	"	2	22	20	44
Extension, 1st Division	200	194	25	.....	25	13	12	3832	19.75	204	"	2	13	.....	15
" 2nd "	200	199	44	.....	44	21	23	6781	34.07	405	"	1	14	27	42
" 3rd "	200	200	34	.....	34	23	11	5522½	27.61	308	"	3	12	11	26
Fairview	200	196	14	.....	14	8	6	1823½	9.30	109	"	2	....	3	5
Falkland	200	190½	24	.....	24	10	14	1953	10.25	120	"	1	8	11	20
Fanny Bay	200	194½	19	.....	19	9	10	2809½	14.44	167	"	2	6	33	41
Fauquier	200	196	18	1	19	11	8	1722	8.78	124	No.	1	17	3	21
Ferguson	200	198	12	.....	12	7	5	2148½	10.93	108	Yes.	1	2	7	10

Field	200	183	25	.....	25	15	10	2989	16.33	178	Yes.	1	4	74	79
Fife	200	197	21	4	25	14	11	3160½	16.04	203	"	2	4	49	55
Fire Valley	200	189½	18	.....	18	9	9	2884	15.22	150	"	1	6	1	8
Fish Lake	200	188	22	2	24	16	8	2574½	13.69	200	No.	2	9	17	28
Flagstone	200	200	32	.....	32	17	15	3567	17.83	221	Yes.	2	2	4	8
Fort Fraser	200	197	17	.....	17	5	12	1990	10.10	114	No.	1	1	.....	2
Fort George, 1st Division	200	200	30	.....	30	17	13	4506½	22.53	270	"	3	13	4	20
" 2nd "	200	190	32	1	33	16	17	5322	28.01	311	"	3	13	7	23
Fort George, South	200	200	23	....	23	14	9	3951½	19.75	218	"	2	2	8	12
Fort Steele, 1st Division	200	199	19	3	22	7	15	2889	14.51	175	"	2	23	7	32
" 2nd "	200	199	24	.....	24	13	11	3431	17.24	199	Yes.	2	25	18	45
Foster's Bar	200	137½	13	.....	13	6	7	1245	9.05	67	"	1	10	23	34
French Creek	200	197½	14	2	16	7	9	2357	11.93	135	"	2	.....	6	8
Fruitlands, 1st Division	200	189½	35	1	36	13	23	3390½	17.89	251	"	1	2	1	4
" 2nd "	200	186½	39	.....	39	22	17	5070	27.18	353	"	1	4	15	20
Fruitvale	200	199	42	.....	42	23	19	6220	31.25	330	"	4	4	6	14
Gabriola, North	200	188	14	.....	14	11	3	1810½	9.63	129	"	.....	11	16	27
Gabriola, South	200	179½	17	2	19	7	12	2234	12.44	151	"	.....	35	26	61
Galena Bay	200	200	12	1	13	4	9	1852½	9.26	90	"	1	10	36	47
Galiano	200	195	14	.....	14	8	6	2128	10.91	131	"	.....	4	16	20
Galiano, North	200	168½	10	9	19	12	7	1342⅓	7.97	83	"	1	8	17	26
Galloway	200	190½	14	1	15	5	10	1736	9.10	85	"	1	1	1	3
Gambier Island (closed)	83	79½	7	.....	7	2	5	496	6.23	20	.....	1	2	7	10
Ganges	200	188	10	.....	10	4	6	1687	9.02	113	"	1	8	16	25
Gerrard	200	132	11	....	11	4	7	964	7.30	54	"	.....	4	10	14
Gill	200	197	31	.....	31	14	17	3502½	17.78	219	"	2	10	58	70
Gillis Bay	200	198	13	.....	13	7	6	2032½	10.02	119	"	.....	6	4	10
Gilpin	200	199	8	1	9	2	7	1566⅓	7.87	74	"	1	4	18	23
Giscome	24	25	21	.....	21	11	10	380½	15.22	38	"	.....	.....	34	34
Glade	200	195	20	.....	20	20	.....	2627	13.47	.....	No.	2	18	94	114
Glenbank	200	196	38	3	41	19	22	6248½	31.88	361	Yes.	2	3	30	35
Glencoe	200	190	9	2	11	3	8	1508	7.93	85	"	1	20	34	55

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Glenemma	200	193	17	.....	17	8	9	2255½	11.68	126	Yes.	1	4	35	40
Glenora	200	199	15	.....	15	6	9	2231	11.26	136	No.	2	5	19	26
Glenrosa	200	189½	10	.....	10	4	6	1175½	6.21	65	Yes.	1	2	35	38
Golden, 1st Division	200	194	31	2	33	12	21	4881½	25.16	315	"	2	5	6	13
" 2nd "	200	194	36	.....	36	17	19	6137	31.63	322	"	1	1	3	5
" 3rd "	200	198	31	.....	31	15	16	5959	30.09	357	"	1	.....	20	21
" 4th "	200	199	35	.....	35	19	16	5956	30.13	335	"	1	1	19	21
Goldstream	200	186	10	1	11	5	6	1638	8.81	59	"	1	2	.....	3
Granby Bay, 1st Division	200	198	42	.....	42	23	19	5820	29.39	335	No.	3	9	16	28
" 2nd "	200	198	51	.....	51	29	22	8000½	40.40	461	"	2	3	8	13
Granby Bay Mine	200	196	29	.....	29	15	14	4009	20.45	226	"	3	2	9	14
Grande Prairie	200	200	23	2	25	14	11	2806½	14.03	168	Yes.	1	1	12	14
Granite Bay	200	199	8	2	10	6	4	1982	9.95	100	"	.....	5	40	45
Grantham	200	189	40	.....	40	21	19	4176½	22.09	227	"	2	16	65	83
Grindrod	200	196½	20	.....	20	12	8	2339	11.90	137	"	2	4	.....	6
Half Moon Bay	83	77	5	.....	5	2	3	267	3.46	16	.....	1	3	5	9
Hall's Landing	200	194½	22	.....	22	10	12	3778½	19.43	145	Yes.	1	19	25	45
Happy Valley	200	193½	35	.....	35	16	19	3313	17.12	209	"	1	3	18	22
Hardy Island	200	197	6	2	8	2	6	1502	7.62	77	"	.....	9	14	23
Harewood, 1st Division	200	198½	35	.....	35	14	21	4899½	24.68	286	"	2	12	11	25
" 2nd "	200	192½	47	.....	47	23	24	6448	33.02	419	"	3	8	.....	11
" 3rd "	200	198½	48	.....	48	23	25	7533	37.97	424	"	3	7	2	12

Harewood, 4th Division	200	197	16	1	17	14	3	2070	10.51	128	No.	.....	.....	6	6
" 5th "	200	198½	32	.....	32	15	17	4977	25.07	292	Yes.	2	6	3	11
" 6th "	200	198½	24	.....	24	19	5	3461½	17.43	214	"	2	13	68	83
" 7th "	200	198	57	.....	57	32	25	8700	43.93	536	"	3	7	2	12
" 8th "	200	198½	36	.....	36	19	17	6909⅓	34.81	350	"	2	8	1	11
Harper's Camp	200	198	9	.....	9	5	4	1384½	6.99	87	No.	1	7	12	20
Harrogate	200	195½	9	1	10	4	6	1632½	8.35	96	Yes.	1	26	20	47
Harrop	200	191	22	.....	22	10	12	2777	14.53	193	"	2	6	13	21
Hat Creek	200	178½	6	3	9	5	4	1450	8.12	79	"	1	1	2	4
Hatzic Prairie	200	192	12	1	13	7	6	1509½	7.86	103	"	1	13	24	38
Haysport	200	197	14	1	15	8	7	1804	9.15	97	"	2	24	18	44
Hazelton	200	198½	17	1	18	8	10	3300	16.62	127	"	2	10	84	96
Hazelton, New	200	198	22	.....	22	7	15	3115	15.73	180	No.	2	1	3	6
Headquarters	200	199	18	1	19	11	8	2333⅓	11.72	145	Yes.	1	3	9	13
Hedley, 1st Division (Superior)	200	196½	14	2	16	9	7	2925½	14.88	111	No.	3	.....	2	5
" 2nd "	200	196½	22	.....	22	9	13	5617	28.58	210	"	2	.....	61	63
" 3rd "	117	109½	27	.....	27	11	16	2383⅓	21.76	140	Yes.	1	.....	19	20
Heffley Creek	200	195	16	3	19	13	6	2403⅓	12.32	136	"	1	12	26	39
Heffley Lake	200	186	9	.....	9	6	3	1590½	8.55	88	"	1	6	5	12
Heriot Bay	200	195	16	3	19	12	7	1725⅓	8.85	89	"	.....	4	38	42
Heydon Bay	156	120	11	.....	11	4	7	1025½	8.54	60	"	.....	6	16	22
Highland	200	198	9	1	10	6	4	1592½	8.04	99	"	2	15	17	34
Hilborn	200	196	9	1	10	5	5	1943	9.91	95	"	1	3	44	48
Hillier	200	196½	8	3	11	8	3	1246	6.34	57	"	3	10	17	30
Hilltop	200	196	11	.....	11	6	5	1803	9.19	108	.....	1	5	20	26
Hilton	200	194½	13	.....	13	5	8	1578½	8.11	85	Yes.	1	1	7	9
Hope, 1st Division	200	176	25	.....	25	11	14	3082	17.51	174	"	1	14	36	51
" 2nd "	200	166	25	.....	25	13	12	3000½	18.07	168	"	1	9	23	33
Hope Station	200	196½	11	1	12	5	7	1992⅔	10.14	100	"	1	9	20	30
Hornby Island	200	187½	17	1	18	8	10	1337½	7.13	109	"	.....	1	26	27
Horse Creek	200	198	19	.....	19	16	3	2360½	11.92	145	"	1	4	100	105
Hosmer	200	187	29	.....	29	10	19	2670	14.32	216	No.	2	2	12	16

TABLE A.—Attendance of Pupils at *Rural and Assisted Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL AND ASSISTED SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Houston	200	193½	8	2	10	7	3	1439	7.44	82	Yes.	1	7	14	22
Howe Sound, 1st Division	200	200	37	1	38	15	23	5566½	27.83	328	"	2	.....	2	4
" 2nd "	200	197	30	....	30	15	15	4792	24.32	307	"	2	.....	2	4
Hume, 1st Division	200	199	20	1	21	11	10	3219	16.17	167	"	3	11	17	31
" 2nd "	200	199	35	.....	35	21	14	5737½	28.83	341	"	2	7	16	25
" 3rd "	200	199	34	.....	34	18	16	5482½	27.55	293	"	2	8	12	22
" 4th "	200	199	43	.....	43	21	22	6515	32.73	347	"	2	10	16	28
" 5th "	200	199	46	.....	46	30	16	7404	37.20	398	"	2	10	26	38
Hupel	200	186½	9	1	10	6	4	1295½	6.95	72	"	1	8	17	26
Hurlingham	200	188	12	1	13	9	4	1498½	7.97	77	"	1	6	30	37
Huscroft	200	193	10	.....	10	7	3	1749	9.06	92	"	2	7	5	14
Invermere	200	199	21	1	22	10	12	3315½	16.66	201	No.	1	25	8	34
Inverness	200	200	12	1	13	5	8	1941	9.70	.....	Yes.	1	4	9	14
Ioco	200	186	31	.....	31	17	14	4934½	26.53	253	"	2	7	51	60
Isabella Point	200	192	15	2	17	10	7	2116	11.02	107	"	1	12	36	49
Jaffray	200	200	38	1	39	23	16	5772	28.86	326	"	2	3	1	6
James Island	200	186½	32	2	34	20	14	5052	27.09	302	"	1	7	42	50
Jordan River	200	200	6	1	7	3	4	1343½	6.72	68	"	.....	4	4	8
Kaleden	200	192½	9	2	11	6	5	1882	9.77	119	"	2	16	5	23
Kaleva	200	194½	10	.....	10	4	6	1756½	9.03	75	No.	....	6	6	12
Kedleston	200	198½	11	.....	11	5	6	1728	8.71	95	Yes.	1	8	25	34
Keefers	200	200	10	1	11	7	4	1912½	9.56	110	"	2	8	8	18

Kelowna, East	200	197	19	1	20	10	10	3437½	17.45	216	Yes.	4	4	32	40
Kelowna, North	200	198½	16	1	17	9	8	2709	13.65	153	"	2	4	9	15
Keremeos, 1st Division	200	186	13	2	15	10	5	2264	12.17	139	"	2	1	6	9
" 2nd "	200	183½	25	.....	25	14	11	4085½	22.26	215	"	2	1	12	15
Keremeos, South	200	196	24	1	25	9	16	2717	13.83	164	"	1	3	4	8
Kettle River, North	200	183	14	.....	14	7	7	1855½	10.14	109	"	1	14	30	45
Kettle Valley	200	181	18	3	21	10	11	1948	10.76	135	No.	1	1	6	8
Kildonan	200	191	11	1	12	4	8	1507½	7.89	112	Yes.	.....	3	2	5
Killarney	200	189	17	.....	17	9	8	2312½	12.24	165	"	2	8	48	58
Kimberley	200	199	34	1	35	22	13	4707	23.65	264	"	2	3	8	13
Kingsgate	200	198½	10	1	11	3	8	1669	8.41	98	"	1	2	11	14
Kitimat	200	198	8	1	9	6	3	1290	6.51	77	"	.....	17	28	45
Kitsumgallum	200	197	38	2	40	23	17	3941	20.01	277	"	2	15	39	56
Knutsford	200	178½	11	.....	11	8	3	1864½	10.45	107	"	2	13	22	37
Koch Siding	200	198	11	.....	11	8	3	1815½	9.17	112	"	1	7	29	37
Koksilah	200	198½	17	3	20	14	6	3107½	15.65	169	"	3	14	61	78
Kundis	200	195	11	1	12	6	6	2016	10.34	122	No.	1	21	25	47
Lac du Bois	200	178	12	2	14	8	6	1571½	8.83	76	Yes.	1	18	20	39
Lac la Hache	200	190	18	1	19	12	7	2241½	11.79	127	"	.....	1	14	15
Lake Buntzen	200	194	4	3	7	3	4	1514	7.08	95	"	.....	17	11	28
Langford	200	200	24	.....	24	11	13	3740	18.70	215	"	2	11	19	32
Lasqueti	200	193	12	.....	12	4	8	1727	8.94	68	"	.....	5	11	16
Lazo	200	199	29	3	32	18	14	4503½	22.63	263	"	2	17	31	50
Lillooet	200	98	33	2	35	13	22	4832½	24.41	277	"	1	10	6	17
Little Fort	200	200	16	1	17	9	8	2073	10.36	129	No.	.....	5	15	20
Loco	200	200	9	.....	9	2	7	1366½	6.83	80	Yes.	1	5	11	17
Long Lake	200	175	24	2	26	17	9	3196½	18.26	197	"	1	4	3	8
Louis Creek	200	198½	15	2	17	7	10	2313½	11.66	.....	"	1	2	20	23
Lucerne	200	192	27	.....	27	8	19	3287½	18.68	200	"	.....	5	5	10
Lumby, 1st Division	200	191½	17	5	22	12	10	3484½	18.19	196	No.	2	.....	.....	2
" 2nd "	200	187	20	.....	20	5	15	3965	21.20	257	Yes.	2	.....	10	12
Lund	200	188	30	.....	30	15	15	4298½	22.86	178	"	1	2	21	24

TABLE A.—Attendance of Pupils at *Rural and Assisted Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL AND ASSISTED SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Lytton	200	197	26	2	28	17	11	4705	23.88	277	No.	2	8	31	41
Mabel Lake	200	200	14	.....	14	6	8	1993	9.96	115	Yes.	1	4	13	18
Malahat	200	196	40	3	43	25	18	6049	30.86	321	"	2	6	6	14
Malakwa	200	195½	22	.....	22	15	7	3022½	15.46	175	No.	1	6	12	19
Malcolm Island, 1st Division	200	189	25	1	26	14	12	4568	24.17	279	"	1	12	44	57
" 2nd "	200	189	24	.....	24	11	13	3833½	20.28	232	"	1	11	41	53
Mapes	200	200	11	4	15	9	6	1875	9.37	112	"	1	1	.....	2
Mara, 1st Division	200	200	18	.....	18	8	10	2418½	12.09	146	Yes.	3	19	28	50
" 2nd "	200	200	22	.....	22	15	7	3693½	18.46	232	"	3	18	34	55
Marshall	200	199½	10	.....	10	6	4	1434½	7.19	73	"	.....	2	4	6
Martin's Prairie	200	178	30	.....	30	18	12	2874	16.10	171	"	1	11	14	26
Marysville	200	193½	30	1	31	15	16	4330½	22.37	108	No.	2	.....	.....	2
Masset	200	201	12	1	13	7	6	1623½	8.07	44	Yes.	1	.....	1	2
Mayne Island	200	197	29	2	31	15	16	4267½	21.66	234	"	.....	10	10	20
Meadowbrook	200	181	12	.....	12	6	6	1685½	9.31	118	"	1	2	4	7
Meadow Spur	200	198	8	4	12	6	6	2063	10.42	115	"	2	1	20	23
Meadow Valley	200	179	7	.....	7	3	4	1184½	6.61	58	No.	2	1	8	11
Meldrum Creek	200	198	18	2	20	14	6	1451	7.32	96	Yes.	.....	26	19	45
Metchosin	200	199½	34	2	36	20	16	4643	23.27	263	"	2	11	42	55
Metlakatla	200	199½	26	.....	26	12	14	4826	24.19	278	"	2	12	23	37
Michel, 1st Division	200	192½	21	.....	21	7	14	3102	16.11	164	No.	2	6	22	30
" 2nd "	200	194	22	.....	22	10	12	3786	19.51	210	Yes.	2	2	6	10

Michel, 3rd Division	200	188	33	.....	33	23	10	5334½	28.37	329	Yes.	2	6	.....	8
Michel, New, 1st Division	200	182	39	.....	39	24	15	4628½	25.43	278	"	2	7	.....	9
" 2nd "	200	183	46	.....	46	29	17	6054	33.08	332	"	2	6	3	11
" 3rd "	200	182	43	.....	43	19	24	6670½	36.35	348	"	2	5	6	13
" 4th "	200	183	54	.....	54	24	30	6847½	37.42	367	"	2	6	1	9
Midway	200	191	31	1	32	18	14	4712½	24.67	255	"	2	5	1	8
Mill Brook Cove	200	192	5	2	7	4	3	1173½	6.11	60	"	.....	11	9	20
Mill Creek	200	199	36	4	40	15	25	4992½	25.08	305	"	2	15	36	53
Minto, 1st Division	200	198	16	.....	16	9	7	2473	12.49	127	No.	2	2	9	13
" 2nd "	200	198	28	1	29	20	9	4598	23.22	191	Yes.	2	4	21	27
Mirror Lake	80	74	4	.....	4	2	2	1935	2.61	6	"	.....	1	7	8
Mission Creek	200	192	29	2	31	13	18	4454½	23.20	279	"	2	22	31	55
Moberly	200	198	11	.....	11	9	2	1198	6.25	.....	No.	.....	.....	.....	.....
Model Farms	67	50	7	.....	7	3	4	233⅓	4.67	.....	.....	.....	2	3	5
Monte Creek	200	187½	9	2	11	4	7	1610½	8.21	94	Yes.	1	3	27	31
Montrose	200	201	10	1	11	5	6	1702	8.47	97	"	2	6	15	23
Morrissey	101	54	13	.....	13	4	9	408	7.55	45	.....	.....	5	10	15
Morrissey Mines	200	178	32	.....	32	17	15	4374	24.57	256	Yes.	1	7	16	24
Mountain	200	200	28	.....	28	13	15	4419	22.09	248	"	1	2	20	23
Mount Ingersoll	200	201	22	3	25	16	9	2765⅓	13.75	171	"	.....	1	13	14
Moyase	200	196½	18	.....	18	6	12	2255	11.47	123	"	1	3	5	9
Moyie, 1st Division	200	201	24	.....	24	9	15	3193	15.88	169	"	2	10	21	33
" 2nd "	200	200	24	.....	24	13	11	3237½	16.18	181	"	2	8	23	33
Myncaster	53	53	7	3	10	1	9	406½	7.67	26	"	1	.....	1	2
Macalister	200	197	9	1	10	7	3	1616½	8.08	93	No.	1	9	6	16
McBride	200	200	43	2	45	27	18	5949⅓	29.74	136	Yes.	3	1	15	19
McGuire	200	199	16	.....	16	10	6	2405	12.09	130	"	1	11	1	13
MacKenzie	200	195	23	.....	23	13	10	3201	16.41	201	No.	1	6	20	27
Nakusp, 1st Division	200	199½	35	3	38	15	23	5800½	29.07	334	Yes.	5	32	37	74
" 2nd "	200	199⅓	27	.....	27	16	11	5144⅓	25.78	263	"	3	24	34	61
Nanaimo Bay, 1st Division	200	199	31	.....	31	18	13	4302	21.61	239	"	1	29	3	33
" 2nd "	200	199	51	.....	51	24	27	7054½	35.45	280	"	1	29	8	38

TABLE A.—Attendance of Pupils at *Rural and Assisted Schools*, Details of Management, &c., 1916-1917.—*Continued.*

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Nanoose Bay	200	189	18	1	19	10	9	2170	11.48	122	Yes.	2	9	28	39
Naramata, 1st Division (Superior)	200	198½	15	5	20	10	10	2854½	14.38	89	No.	4	6	19	29
" 2nd "	200	198½	15	.....	15	9	6	3219½	16.21	205	Yes.	2	9	40	51
Nechako	176	168	12	.....	12	6	6	1395	8.30	94	No.	2	4	18	24
Needles	200	197	17	.....	17	11	6	2776½	14.09	156	Yes.	1	2	6	9
New Denver, 1st Division	200	201	42	.....	42	23	19	6713	33.39	362	"	2	8	3	13
" 2nd "	200	198	34	.....	34	15	19	5904	29.81	334	"	2	9	3	14
Nickel Plate	200	195	10	.....	10	3	7	2296	11.77	93	"	1	1	11	13
Nicola	200	190½	18	1	19	4	15	2157½	11.33	119	"	1	11	47	59
Nicola, Lower	200	186	24	1	25	12	13	2659	14.29	182	"	.....	25	70	95
Nicomen	200	195	19	.....	19	12	7	2795	14.33	180	"	1	3	6	10
Nicomen, North	200	199	16	1	17	7	10	2070½	10.40	125	"	1	18	14	33
Nimpkish	200	197	8	.....	8	3	5	1578	8.01	80	No.	1	8	26	35
Nine-mile Creek	200	178	10	.....	10	5	5	1587	8.91	86	Yes.	1	7	18	26
Nob Hill	200	198½	12	.....	12	6	6	2245	11.31	122	"	2	3	6	11
North Bend, 1st Division	200	194	25	.....	25	12	13	3829	19.74	218	"	2	6	53	61
" 2nd "	200	191	26	.....	26	15	11	3956½	20.71	258	"	2	7	51	60
Northfield, 1st Division	200	199	30	.....	30	18	12	4917½	24.71	275	"	1	13	201	215
" 2nd "	200	199	30	.....	30	15	15	4597½	23.10	279	"	1	13	201	215
North Thompson, West	45	32	6	.....	6	3	3	148	4.62	.....	.....	.....	.....	.....	.....
Notch Hill, 1st Division	200	200	22	2	24	10	14	3622½	18.11	208	Yes.	2	5	11	18
" 2nd "	200	194	17	1	18	4	14	3061½	15.78	140	"	2	5	2	9

No. 7 Mine, 1st Division	200	175½	26	.....	26	16	10	4293½	24.46	215	Yes.	2	8	80	90
" 2nd "	200	183	45	.....	45	28	17	5620	30.71	276	"	2	8	85	95
Ocean Falls	200	195	30	2	32	15	17	4937½	25.32	316	"	1	8	86	95
Okanagan	200	194½	31	.....	31	15	16	4150½	21.33	236	"	2	14	10	26
Okanagan Centre	200	201	13	1	14	6	8	2414½	12.01	125	"	1	6	6	13
Okanagan Falls	200	173	15	.....	15	6	9	1472½	8.51	70	"	2	5	5	12
Okanagan Landing	200	196½	29	2	31	8	23	4732½	24.09	263	"	1	1	35	37
Okanagan, South	200	201	32	.....	32	14	18	3778	18.79	235	"	3	23	57	83
Okeover Arm	200	167	7	3	10	5	5	963	5.76	18	"	1	.....	1	2
Olalla	200	189	18	1	19	13	6	2590½	13.71	146	"	.....	11	31	42
Olsen Lake	200	198	11	.....	11	7	4	1303	6.58	83	"	1	12	11	24
Ootsa Lake	200	183	6	3	9	4	5	985½	5.32	62	"	.....	14	5	19
Osland	200	164	10	.....	10	7	3	1389	8.46	79	"	1	11	7	19
Otter Point	200	186	16	1	17	12	5	1960½	10.54	129	"	1	23	11	35
Oyama, 1st Division	200	194½	16	.....	16	9	7	3915	20.12	150	"	3	7	93	103
" 2nd "	87	86½	29	.....	29	19	10	2362	27.30	80	"	1	2	12	15
Oyster	200	195	21	1	22	13	9	3507½	17.99	160	"	1	1	26	28
Oyster, North	200	199	36	.....	36	20	16	4789	24.06	275	"	2	1	64	67
Pachelqua	200	123½	19	1	20	13	7	1232½	9.98	120	"	1	7	3	11
Pacific	142	141½	9	2	11	6	5	983	6.94	52	"	1	5	25	31
Parks Siding	200	189	10	1	11	5	6	1398	7.40	83	"	2	1	4	7
Parksville	200	196	38	1	39	21	18	5612	28.63	317	"	2	15	37	54
Parson	200	192	13	3	16	6	10	1545½	8.05	92	"	1	14	34	49
Pavilion	200	166	11	.....	11	8	3	1657½	9.98	95	"	1	2	26	29
Pemberton Meadows	200	193	12	2	14	8	6	1690½	8.76	95	"	.....	4	25	29
Pemberton Range	200	188½	18	.....	18	5	13	1666	8.83	112	"	1	2	1	4
Pender Harbour	200	186	19	.....	19	10	9	2198	11.81	86	"	2	3	27	32
Pender Island	200	198	20	.....	20	9	11	2909	14.69	182	No.	1	2	23	26
Perry Siding	200	197½	23	1	24	9	15	3742½	18.94	206	Yes.	2	3	31	36
Pinantan	200	187	11	1	12	6	6	1863½	9.96	91	"	1	2	20	23
Porcher Island	200	199	8	2	10	7	3	1566½	7.87	95	"	1	2	3	6
Port Clements	200	190	6	4	10	4	6	1380½	7.26	93	"	1	12	52	65

TABLE A.—Attendance of Pupils at *Rural and Assisted Schools*, Details of Management, &c., 1916-1917.—*Continued.*

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Port Hardy	200	195½	13	2	15	5	10	2344½	11.99	122	Yes.	.....	.....	1	1
Port Renfrew	54	54	5	....	5	4	1	268	4.96	15	.....	.....	.....	5	5
Port Washington	200	196½	7	4	11	9	2	1494	7.60	93	Yes.	1	4	3	8
Pouce Coupe	200	189	19	2	21	10	11	1820	9.62	125	"	.....	4	14	18
Pouce Coupe, North	200	169	9	4	13	9	4	1405	8.31	113	"	.....	1	10	11
Powell River, 1st Division	200	197	26	3	29	13	16	5261½	26.71	287	"	2	14	4	20
" 2nd "	200	200	39	.....	39	14	25	7657½	38.28	350	"	2	5	12	19
" 3rd "	200	200	35	.....	35	17	18	6631	33.15	271	"	2	6	17	25
" 4th "	117	114	26	.....	26	15	11	2696	23.64	151	"	....	5	5	10
" 5th "	42	42	32	.....	32	20	12	1066	25.38	61	"	.....	1	.....	1
Princeton, 1st Division	200	187	21	.....	21	10	11	3930½	21.01	166	"	4	16	176	196
" 2nd "	200	186½	38	.....	38	18	20	5715½	30.64	369	"	2	13	174	189
" 3rd "	200	185	44	.....	44	24	20	4816½	26.03	235	"	2	11	187	200
Princeton, East	200	189½	18	.....	18	10	8	2688½	14.18	150	"	2	2	28	32
Procter	200	199	35	.....	35	16	19	5177½	26.15	282	"	2	8	3	13
Qualicum Beach, 1st Division	200	191	18	.....	18	7	11	2891½	15.13	170	"	2	23	52	77
" 2nd "	200	191	22	.....	22	12	10	2855	14.94	187	"	2	4	7	13
Qualicum, Little	200	198½	17	1	18	9	9	2684½	13.52	144	"	2	8	12	22
Quatsino	200	195	21	1	22	14	8	3159⅓	16.20	195	No.	.....	10	24	34
Queen Charlotte	200	200½	10	1	11	5	6	2115	10.54	106	"	1	9	33	43
Quesnel, 1st Division	200	200	25	2	27	19	8	3958	19.88	178	Yes.	1	.....	.....	1
" 2nd "	200	199	22	1	23	12	11	3375½	16.95	144	"	1	2	40	43

Ray Lake	200	188	9	4	13	5	8	1384	7.36	84	Yes.	.....	.....	9	9
Refuge Cove	200	113	10	.....	10	5	5	747½	6.61	48	.....	.....	3	12	15
Reiswig	200	198½	11	1	12	9	3	1621½	8.16	61	Yes.	1	.....	7	8
Renata	200	200	13	4	17	13	4	2060½	10.30	108	No.	1	5	55	61
Retreat Cove	200	130	12	.....	12	8	4	1335½	10.27	82	Yes.	.....	2	6	8
Richlands	200	200	9	.....	9	6	3	1456	7.28	87	"	1	9	.....	10
Riondel	200	200	11	2	13	6	7	2505½	12.52	126	"	1	2	15	18
Roberts Creek	200	182	15	.....	15	6	9	1820	10.00	145	"	1	27	19	47
Robin's Range	200	189½	28	1	29	11	18	3609½	18.99	229	"	1	2	25	28
Robson	200	190½	25	1	26	14	12	3954	20.75	257	"	2	7	43	52
Rock Bay	200	195	14	1	15	7	8	1912	9.81	150	"	.....	5	3	8
Rock Creek	200	197	33	.....	33	18	15	3329½	16.90	155	"	1	5	.....	6
Rocky Point	200	196½	12	1	13	9	4	1716½	8.73	99	"	1	5	13	19
Roe Lake	200	199	15	3	18	9	9	2468½	12.40	173	"	1	10	54	65
Roosville	200	200	14	.....	14	8	6	2219	11.09	140	"	2	4	11	17
Rosebery	200	195	6	2	8	2	6	1547½	7.93	79	"	1	7	46	54
Rose Hill	200	183	16	5	21	14	7	1842	10.06	133	"	2	11	6	19
Round Top	200	190	12	.....	12	7	5	1356	7.13	96	"	.....	7	11	18
Royston	200	183½	18	.....	18	8	10	1845	10.05	118	"	2	17	44	63
Rutland, 1st Division (Superior)	200	199	16	3	19	6	13	2907½	14.61	175	"	4	9	3	16
" 2nd "	200	199½	30	.....	30	15	15	4384½	21.98	250	"	2	2	1	5
" 3rd "	200	200	37	.....	37	19	18	5886	29.43	348	"	2	1	.....	3
Saanich, North	200	197	42	1	43	25	18	5911	30.00	342	No.	2	19	25	46
Sahtlam	200	192	13	1	14	6	8	1388½	6.97	96	Yes.	2	1	6	9
St. Elmo	200	189	29	1	30	18	12	2401	12.70	191	"	1	10	2	13
Salmo, 1st Division	200	199½	25	.....	25	11	14	4270½	21.41	217	No.	2	4	8	14
" 2nd "	200	199½	25	.....	25	11	14	4320	21.65	249	Yes.	1	3	25	29
Salmon River	200	195	11	2	13	7	6	1274	6.53	78	"	3	3	26	32
Salmon Valley	200	190	24	.....	24	11	13	3005½	15.81	205	No.	1	4	1	6
Sandspit	200	187½	18	1	19	6	13	2612	13.93	153	"	1	1	12	14
Sandwick	200	199	35	1	36	18	18	6069½	30.50	235	Yes.	1	4	27	32
Saskatoon Creek	200	201	10	.....	10	8	2	1792	8.91	91	"	.....	9	35	44

TABLE A.—Attendance of Pupils at *Rural and Assisted Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL AND ASSISTED SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Savary Island	200	195½	10	1	11	7	4	2092	10.70	106	Yes.	1	1	1	3
Savona	200	183½	13	.....	13	6	7	1882	10.25	118	"	1	1	3	5
Sayward	200	190	11	.....	11	9	2	1073	5.64	49	"	.....	3	39	42
Sechelt	200	194½	15	4	19	9	10	2235	11.49	145	"	2	18	89	109
Seton Lake Creek	200	183	15	.....	15	10	5	2070	11.31	138	"	1	3	3	7
Seymour Arm	200	200	17	1	18	10	8	1731	8.65	102	"	.....	11	15	26
Shaw Cove	200	171	11	.....	11	2	9	1506½	8.81	80	.....	.....	5	40	45
Shawnigan	200	197	33	.....	33	16	17	4384	22.25	150	No.	1	4	5	10
Shirley	4	4	2	.....	2	1	1	8	2.00	2	Yes.	.....	.....	.....	.....
Shoreacres	200	198	29	3	32	16	16	2854½	14.41	174	No.	2	.....	7	9
Shuswap	200	175½	11	1	12	8	4	1421½	8.09	98	Yes.	.....	1	8	9
Shuswap Falls	200	187	12	1	13	8	5	1542	8.24	84	"	1	10	56	67
Shuswap, North	200	184	23	5	28	17	11	2887	15.69	183	"	.....	7	.....	7
Shutty Bench	200	200	10	.....	10	4	6	1963	9.81	113	"	1	1	11	13
Sicamous	200	198½	21	.....	21	12	9	2970½	14.96	165	"	2	2	12	16
Sidney, 1st Division (Superior)	200	192½	19	5	24	7	17	3869½	20.10	133	"	3	17	8	28
" 2nd "	200	198½	40	.....	40	16	24	6601	33.25	388	"	2	18	14	34
" 3rd "	200	198½	52	.....	52	25	27	6209	31.27	396	"	2	15	14	31
Silver Creek	200	191	25	1	26	16	10	4104½	21.48	250	"	1	3	22	26
Silverton, 1st Division	200	193	33	.....	33	15	18	4736	24.53	270	"	2	3	31	36
" 2nd "	200	192	41	.....	41	19	22	6020½	31.36	343	"	2	.....	9	11
Similkameen	200	193	13	2	15	5	10	1821	9.43	129	"	2	3	34	39

Simpson	200	199	31	.....	31	15	16	5487	27.57	288	Yes.	2	8	34	44
Sinclair	200	197	9	.....	9	6	3	1514	7.68	85	"	1	4	13	18
Sirdar	200	201	18	.....	18	12	6	2490	12.38	180	.....	1	4	20	25
Sisters Creek	183	179	8	.....	8	5	3	1403	7.83	73	Yes.	1	4	7	12
Skidegate (closed)	45	29	6	.....	6	3	3	125	4.31	.....	.....	.....	2	4	6
Skookumchuck	117	113	10	3	13	7	6	1178	10.42	66	No.	1	19	12	32
Slocan Junction	200	193½	25	2	27	9	18	3084	15.94	230	Yes.	4	5	40	49
Smithers	200	196½	29	.....	29	12	17	4756	24.20	290	"	3	10	73	86
Soda Creek	200	200	15	1	16	10	6	2821½	14.11	153	"	1	.....	50	51
Solsqua	200	193	13	2	15	10	5	2485½	12 87	150	No.	1	2	16	19
Sooke	200	195	32	2	34	16	18	4339	22.25	295	Yes.	2	14	24	40
Sooke Harbour	200	184	6	1	7	2	5	1068	5.80	68	"	1	7	11	19
Sorrento	200	188½	18	.....	18	10	8	1608½	8.53	105	"	.....	14	34	48
Spences Bridge	200	185	21	.....	21	11	10	2860½	15.46	188	"	1	29	56	86
Squam Bay	200	195½	11	1	12	6	6	2011½	10.39	95	"	.....	8	8	16
Squamish	200	194½	21	1	22	8	14	2827	14.53	173	"	.....	1	27	28
Squamish, Lower, 1st Division	200	194	17	1	18	6	12	3154	16.25	173	"	1	10	44	55
" 2nd "	200	194	17	1	18	7	11	3574½	18.31	163	"	1	10	39	50
Squirrel Cove	117	111	18	.....	18	13	5	1010	9.09	72	"	1	5	6	12
Standard Mine	200	199	21	2	23	15	8	4167	20.93	206	"	1	16	8	25
Stellaco	200	196	12	1	13	9	4	1767½	9.01	102	"	2	16	25	43
Stewart	200	201	5	.....	5	2	3	1019	5.06	41	No.	1	1	5	7
Sullivan Valley	200	171	11	7	18	8	10	1466	8.57	82	Yes.	1	2	35	38
Sunnybrae	200	192½	9	1	10	4	6	1465½	7.61	71	"	.....	.....	.....	.....
Sunnyside	83	77	9	.....	9	2	7	529	6.87	32	.....	.....	3	12	15
Sunnyside, No. 2	42	42	10	.....	10	5	5	399½	9.51	90	Yes.	.....	11	6	17
Swift Creek	143	138	11	.....	11	7	4	1265	9.16	65	.....	1	3	30	34
Syringa Creek	200	196	8	.....	8	5	3	1258½	6.42	88	Yes.	1	5	2	8
Taft	200	192	6	1	7	2	5	1377	7 17	79	"	1	3	15	19
Tappen Siding	200	173	28	2	30	8	22	3226	18.64	187	"	.....	.....	.....	.....
Tappen Valley	200	194½	17	6	23	8	15	2462½	12.66	177	"	....	5	19	24
Telegraph Creek	200	187½	32	.....	32	17	15	1917	10.22	260	No.	.....	2	30	32

TABLE A.—Attendance of Pupils at *Rural and Assisted Schools*, Details of Management, &c., 1916-1917.—*Continued.*

RURAL AND ASSISTED SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Telkwa	200	193	15	.....	15	10	5	1557½	8.07	96	No.	2	20	6	28
Three Forks	200	196	8	.....	8	5	3	1340	6.83	85	Yes.	1	2	14	17
Three Valley	200	200	11	1	12	8	4	2396	11.98	110	"	1	.....	1	2
Thrums	200	195	46	.....	46	19	27	3612½	18.52	298	"	2	1	.....	3
Thurlow Island	200	195	10	1	11	7	4	1626	8.33	84	"	.....	12	57	69
Tranquille	200	185	12	2	14	8	6	1380	7.45	97	"	2	3	16	21
Trapp Lake	200	181	12	3	15	7	8	1590½	9.17	59	"	1	4	5	10
Trout Creek, Upper	200	198	13	2	15	9	6	2333	11.78	131	"	3	7	2	12
Trout Lake	200	200	17	1	18	7	11	3393	16.96	178	"	1	8	91	100
Tulameen	200	138	14	2	16	6	10	1253	9.08	75	"	1	6	15	22
Turtle Valley	200	192½	17	1	18	7	11	2229	11.57	139	"	.....	2	15	17
Ucluelet	200	159	14	.....	14	5	9	1532	9.63	126	"	1	7	22	30
Ucluelet Arm	200	172	9	1	10	3	7	2038½	11.85	95	"	1	14	25	40
Ucluelet, East	200	172	15	.....	15	10	5	1953	11.35	107	"	1	13	30	44
Union Bay, 1st Division	200	191½	24	.....	24	12	12	4415½	23.05	199	"	1	3	14	18
" 2nd "	200	200	41	....	41	24	17	6649	33.25	341	"	2	4	22	28
Valdes Island	200	188½	14	2	16	8	8	2016½	10.69	134	"	1	2	82	85
Vananda, 1st Division	200	199	20	1	21	13	8	3166	15.90	169	No.	.....	2	50	52
" 2nd "	200	199	32	.....	32	17	15	5542½	27.85	307	Yes.	....	4	35	39
Vanderhoof	200	201	21	1	22	9	13	3920	19.50	201	"	2	.....	12	14
Vargas	83	70	6	.....	6	4	2	349	4.98	25	.....	....	5	7	12
Vesuvius	200	185½	24	1	25	14	11	2675	14.42	195	Yes.	2	13	56	71

Vesuvius, North	200	184	17	.....	17	7	10	2755	14.97	194	Yes.	1	25	117	143
Waldo, 1st Division	200	196½	31	1	32	12	20	4354½	22.16	266	No.	2	15	11	28
" 2nd "	200	200	51	.....	51	21	30	7383½	36.92	455	"	2	12	10	24
Walhachin	200	188	13	.....	13	5	8	1579½	8.40	91	Yes.	1	5	.....	6
Wanklyn	97	97	13	.....	13	8	5	1089	11.22	65	"	1	1	2	4
Wapta	200	193	17	.....	17	11	6	1827	9.46	106	"	1	15	10	26
Wardner	200	200	39	....	39	24	15	6169	30.84	334	"	1	6	17	24
Wasa	200	199	20	.....	20	13	7	2129	10.69	181	No.	2	6	10	18
Waterloo	200	199	18	1	19	11	8	3144½	15.80	183	Yes.	1	6	44	51
Watmore	200	194	11	1	12	6	6	1825	9.40	120	"	1	15	9	25
Wellington, 1st Division	200	188	26	1	27	13	14	3249	17.28	208	"	2	4	3	9
" 2nd "	200	185	24	2	26	16	10	2661½	14.38	177	"	2	.....	8	10
Wellington, South, 1st Division	200	200	18	1	19	8	11	2878½	14.39	139	"	2	26	5	33
" 2nd "	200	200	33	.....	33	19	14	5718	28.59	364	"	2	24	1	27
" 3rd "	200	200	42	.....	42	25	17	6472	32.36	374	"	2	28	1	31
" 4th "	200	199	46	1	47	22	25	7531	37.84	444	"	2	28	1	31
Westbank Townsite	200	188	26	.....	26	16	10	3898½	20.73	206	"	2	8	13	23
Westview	200	186	10	2	12	6	6	1323½	7.11	79	"	1	19	36	56
Whaletown	200	197	10	.....	10	5	5	1617	9.13	94	"	1	6	7	14
Whatshan	200	196	39	.....	39	21	18	4152	21.18	274	"	1	3	20	24
Wheeler Mountain (closed)	67	59	6	.....	6	2	4	216	3.66	15	.....	.....	2	10	12
White Lake	117	105	16	.....	16	7	9	1253	11.93	85	Yes.	.....	5	16	21
Williams Lake	200	187½	15	2	17	7	10	2386	12.73	147	"	1	3	11	15
Williams Siding	200	200	13	.....	13	5	8	1654	8.27	90	"	2	18	51	71
Willow River	200	195	24	4	28	13	15	3802	19.49	248	"	1	1	7	9
Wilmer	200	192	18	.....	18	13	5	2336	12.16	163	"	1	2	4	7
Windermere	200	191	12	.....	12	5	7	2072	10.84	120	"	1	4	27	32
Winlaw	200	198½	19	.....	19	8	11	2339½	11.78	125	"	2	.....	3	5
Woden River	200	194	8	1	9	6	3	1407	7.25	75	"	1	5	10	16
Wolfson Bay	200	195½	11	1	12	5	7	1148½	5.87	69	No.	2	.....	3	5
Woods Lake	200	200	38	1	39	22	17	4800	24.00	113	Yes.	1	4	23	28
Woodville Road	117	117	11	3	14	6	8	893½	7.63	52	"	.....	3	7	10

TABLE A.—Attendance of Pupils at *Rural and Assisted Schools*, Details of Management, &c., 1916-1917.—*Concluded.*

RURAL AND ASSISTED SCHOOLS.	No. of prescribed school days.	No. of days school was in session.	No. of pupils between 6 and 16 who attended the school during the year.	No. of pupils of other ages who attended the school during the year.	Total number of pupils of all ages who attended the school during the year.	Boys.	Girls.	Grand total actual daily attendance made by all the pupils enrolled.	Average actual daily attendance.	No. of monthly reports sent to parents.	School opened or closed with the Lord's Prayer. (Yes or No.)	No. of visits by the Superintendent of Education, or Inspectors.	No. of visits by Trustees.	No. of visits by others.	Total visits to school.
Wycliffe	200	198½	23	.....	23	13	10	3072½	15.47	137	Yes.	1	9	17	27
Wynndel	200	187	28	.....	28	14	14	3628	19.99	230	"	1	1	6	8
Yale	200	200	16	.....	16	11	5	2320½	11.60	124	"	.....	2	18	20
Ymir	200	200	41	.....	41	23	18	6384	31.92	371	"	2	6	68	76
Grand total, *Rural and Assisted Schools*, 1916-1917			12164	544	12708	6520	6188	17615561/2	9191.43						
" " " 1915-1916			12355	572	12927	6676	6251	17527401/2	9113.64						

RECAPITULATION.

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TABLE B.—Abstract of Studies, &c., pursued in the *High Schools* for the year 1916-1917.

HIGH SCHOOLS.	A.—ENGLISH.					B.—HISTORY & GEOGRAPHY.				C.—MATHEMATICS.				D.—SCIENCE.				E.—CLASSICS.				F.	G.—COMMERCIAL.				H.			
	Reading.	Writing and Spelling.	English Grammar.	Composition & Rhetoric.	English Literature.	British History.	Roman History.	Grecian History.	Geography.	Arithmetic.	Algebra.	Geometry.	Trigonometry.	Chemistry.	Physical Science.	Nature Study and Physiology.	Botany.	Latin.	Greek.	French.	German.	Drawing.	Book-keeping.	Stenography.	Typewriting.	Business Forms and Laws of Business.	Manual Training.	Domestic Science.	Agriculture.	Mechanics.
Agassiz	18	18	18	18	18	....	....	....	....	5	18	18	....	13	....	....	13	18	....	18	....	5	....	....	....	....	....	....	..	..
Armstrong (2 Divisions)	50	50	40	50	50	....	10	....	....	35	50	50	..	19	....	....	29	27	....	49	....	25	....	....	....	....	17	23	24	..
Bridgeport (3 Divisions)	49	49	35	49	49	....	14	....	....	32	48	48	....	30	....	....	16	49	....	49	...	18	....	....	....	....	13	21	..	..
Chilliwack (3 Divisions)	101	101	84	101	101	16	16	1	1	61	101	101	....	53	....	....	58	101	....	83	....	44	....	....	....	....	38	46	4	..
Cranbrook	27	27	21	27	27	....	6	....	....	23	27	27	....	4	6	....	4	27	....	27	....	17	....	....	....	....	7	....	..	..
Cumberland (2 Divisions)	39	39	33	39	39	....	6	....	....	29	39	39	....	16	....	....	10	39	...	39	....	23	...	....	....	..	....	....	..	..
Duncan	27	27	23	27	27	....	3	....	....	18	27	27	....	9	2	....	9	26	....	27	....	14	....	....	....	....	....	3	..	..
Enderby	26	26	9	26	26	....	14	1	....	22	26	26	1	4	12	...	4	26	....	26	...	5	....	....	...	....	....	....	..	..
Esquimalt (2 Divisions)	28	28	24	28	28	....	3	....	....	9	28	28	....	2	....	....	18	28	....	28	...	6	....	....	...	....	....	....	..	..
Fernie (2 Divisions)	39	39	31	39	39	6	2	6	8	18	39	39	2	19	2	....	13	39	....	39	...	18	....	....	....	....	....	....	..	..
Golden	26	26	20	26	26	....	5	....	1	12	26	26	1	8	5	....	8	26	....	26	....	8	....	....	....	....	....	....	..	..
Grand Forks (2 Divisions)	49	49	42	49	49	7	....	7	7	26	49	49	....	27	....	....	20	49	...	49	....	26	.	....	....	....	....	....	..	..
Greenwood	16	16	16	16	16	....	....	....	....	14	16	16	...	2	....	....	2	16	....	16	....	14	....	....	....	....	....	...	..	..
Kamloops (3 Divisions)	65	65	57	65	65	....	8	....	....	38	65	65	....	35	....	....	27	65	....	65	....	30	....	....	....	....	....	....	..	..
Kaslo (2 Divisions)	41	41	26	41	41	....	....	....	....	16	41	41	6	26	16	...	19	36	....	41	....	8	....	....	....	....	....	....	..	..
Kelowna (2 Divisions)	49	49	33	48	48	....	15	....	...	24	48	49	....	9	16	....	11	45	....	49	....	24	....	....	....	....	18	15	..	..
Ladner (2 Divisions)	36	36	32	36	36	. ...	....	4	....	23	36	36	....	17	....	....	13	36	....	36	....	19	....	....	....	....	12	20	..	..
Ladysmith (2 Divisions)	53	53	42	53	53	11	....	11	11	21	53	53	....	32	....	....	21	53	....	53	....	21	....	....	....	....	....	....	..	..
Matsqui (2 Divisions)	28	28	21	28	28	5	2	5	4	19	28	28	....	11	...	....	4	28	...	28	....	17	....	....	....	....	....	....	..	..
Mission (2 Divisions)	45	45	37	45	45	8	....	8	8	19	45	45	....	26	....	...	18	45	....	45	....	19	....	....	....	....	15	21	..	..
Nanaimo (4 Divisions)	113	113	97	113	113	12	4	12	16	57	113	113	4	52	4	....	40	113	....	113	....	57	....	....	....	....	37	56	..	..

Nelson (5 Divisions)	159	159	137	159	159	20	2	20	22	78	159	159	2	83	2	....	63	159	....	159	....	78	.....	.....	....	....	38	36	..	..
New Westminster (11 Divisions)	331	331	258	324	324	29	37	.....	14	172	325	277	15	135	76	...	109	277	...	278	....	102	49	54	54	50	39	63	..	..
Oak Bay (2 Divisions)	47	47	45	47	47	.....	2	.....	.....	23	47	47	....	26	....	....	....	47	....	47	....	21	....	....	....	....	....	....	..	..
Peachland	14	14	12	14	14	.....	2	.....	.....	7	14	14	1	7	....	....	5	14	....	14	....	7	....	....	....	....	....	....	..	..
Penticton (2 Divisions)	56	56	51	55	55	3	1	3	4	31	55	55	1	24	1	....	21	56	...	56	....	30	....	....	....	....	18	26	..	..
Point Grey (5 Divisions)	128	128	101	127	127	.....	26	.....	.....	99	127	99	....	55	....	....	29	100	....	100	....	45	28	28	28	....	51	35	..	..
Port Alberni	25	25	20	25	25	.....	5	.....	.....	13	25	25	...	17	....	2	12	25	....	25	....	8	....	....	....	....	....	....	..	..
Prince Rupert (3 Divisions)	37	37	32	37	37	3	1	3	4	17	36	36	1	20	1	....	16	37	....	37	....	17	....	....	....	....	18	19	..	..
Revelstoke (3 Divisions)	69	69	60	69	69	9	.....	9	9	43	69	57	....	26	....	....	17	57	....	57	....	31	12	12	12	3	....	....	..	..
Rossland (3 Divisions)	53	53	42	53	53	.....	11	.....	.....	30	53	53	...	34	....	....	23	53	....	53	....	19	....	....	....	....	....	....	..	..
Salmon Arm	25	25	22	25	25	.....	3	.....	3	15	25	25	....	5	3	....	5	25	....	25	....	12	....	....	....	....	....	....	..	..
Summerland (2 Divisions)	34	34	26	34	34	.....	8	.....	.....	19	34	34	....	23	....	....	15	34	....	34	....	11	....	....	....	....	....	....	..	..
Trail (2 Divisions)	42	42	38	42	42	4	.....	4	4	27	42	42	....	19	....	....	11	42	....	42	....	27	....	....	....	....	....	....	..	..
Vancouver :																														
Britannia (13 Divisions)	483	483	416	474	477	32	26	.....	...	345	474	354	....	134	39	....	121	349	....	354	5	157	129	129	129	39	187	245	6	..
King Edward (24 Divisions)	942	942	815	942	942	.....	112	.....	.....	675	942	754	....	397	56	....	286	750	....	671	15	390	188	188	188	127	295	334		55
King George (10 Divisions)	344	344	287	344	344	.....	56	.....	.....	235	343	343	....	133	33	....	109	344	....	343	..	139	....	....	....	....	130	154	..	..
Vancouver, North (4 Divisions)	104	104	84	104	104	.....	20	.....	.....	77	104	104	....	47	...	....	27	104	....	104	....	57	....	....	....	....	7	13	..	..
Vancouver, South (9 Divisions)	283	283	226	282	282	28	18	28	38	170	283	243	29	87	45	....	74	242	....	243	....	112	40	40	40	8	118	154	..	..
Vernon (2 Divisions)	61	61	55	61	61	.....	6	.....	.....	41	61	61	1	24	....	....	18	30	....	61	....	35	....	....	....	....	16	38	31	..
Victoria (22 Divisions)	679	679	532	679	679	.....	115	.....	.....	469	679	583	21	272	32	....	157	583	...	583	....	279	96	96	96	26	....	....	..	..
Total, 1916-1917	4841	4841	4000	4821	4824	193	559	122	154	3107	4820	4289	85	1982	351	2	1475	4220	....	4192	20	1995	542	547	547	253	1074	1332	65	55
" 1915-1916	4770	4770	4015	4770	4770	749	49	156	222	3055	4751	4323	127	1744	225	20	1219	4301	8	4231	10	2405	444	444	444	303	1131	1108	..	..

TABLE B.– Abstract of Studies, &c., pursued in the *Graded City Schools* for the year 1916-1917.

GRADED CITY SCHOOLS.	First Primer.	Second Primer.	First Reader.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.	Writing.	Dictation and Spelling.	Composition.	Arithmetic.	Nature Lessons & Hygiene.	Drawing.	Geography.	Canadian History.	British History.	English Grammar.	English Literature.	Physical Exercises.	Manual Training.	Domestic Science (Needlework, etc.).	Music.	Algebra.	Geometry.	Latin.	French.	Physical Science.	Botany.
Alberni (2 Divisions)	10	4	8	12	14	18	....	66	66	66	66	66	66	44	32	32	32	18	66	...	....	34	....	....	....	....	....	..
Armstrong (6 Divisions)	47	18	23	36	72	42	....	238	238	238	238	238	238	150	114	114	114	42	238	34	42	117	....	....	....	....	....	..
Chilliwack (9 Divisions)	54	22	22	77	87	68	...	330	330	330	330	330	330	232*	155	155	155	68	330	76	79	188	....	....	....	....	....	.
Courtenay (3 Divisions, Superior)	18	9	10	18	24	14	14	107	107	107	100	93	100	56	38	38	52	28	107	....	....	.....	14	14	14	14	7	7
Cranbrook:																												
Central (9 Divisions)	47	49	46	43	87	108	....	386	380	380	380	380	380	238	195	195	195	108	380	98	59	264	....	....	....	....	....	..
Kootenay Orchards	1	...	4	9	3	3	....	20	20	20	20	20	20	15	6	6	6	3	20	....	....	.....	..	....	....	....	....	..
South Ward (2 Divisions)	28	5	19	14	10	....	....	76	76	76	76	76	76	24	10	10	10	....	76	24	...	76	....	....	....	....	....	..
Cumberland (9 Divisions)	68	24	40	64	86	60	....	342	342	342	342	342	342	210	146	146	146	60	342	....	....	92	....	.	....	....	....	..
Duncan (7 Divisions)	18	22	18	53	53	51	....	215	215	215	215	215	215	157	104	104	104	51	215	....	77	88	....	....	....	....	....	..
Enderby (4 Divisions)	20	3	9	23	41	39	..	135	135	135	135	135	135	103	80	80	80	39	135	....	....	.....	....	....	....	....	....	..
Fernie (21 Divisions)	125	118	125	171	217	103	....	859	859	859	859	859	859	491	320	320	320	103	859	....	....	243	....	....	....	....	....	..
Grand Forks (10 Divisions)	99	24	34	79	80	98	...	414	414	414	414	414	414	257	178	178	178	98	414	....	....	47	....	....	....	....	....	..
Greenwood (3 Divisions)	13	7	11	9	38	24	....	102	102	102	102	102	102	71	62	62	62	24	102	....	....	.....	...	....	...	....	....	..
Kamloops (10 Divisions)	104	45	50	76	124	71	....	470	470	470	470	470	470	271	195	195	195	71	470	....	....	228	....	....	....	....	....	..
Kaslo (4 Divisions)	20	14	16	24	49	50	....	173	173	173	173	173	173	123	99	99	99	50	173	....	....	50	....	....	....	....	....	..
Kelowna (10 Divisions)	74	14	21	73	117	65	....	364	364	364	364	364	364	255	182	182	182	65	364	70	68	.....	....	....	....	....	....	..
Ladysmith (11 Divisions)	61	27	48	94	153	83	....	466	466	466	466	466	466	330	236	236	236	83	466	....	....	73	....	....	....	....	....	.
Merritt (8 Divisions, Superior)	31	15	39	53	64	39	22	263	263	263	249	241	249	156	103	107	121	61	263	....	....	99	22	22	22	22	14	14
Nanaimo:																												
Middle Ward (4 Divisions)	48	24	39	50	....	....	....	161	161	161	161	161	161	50	.....	.....	.....	....	161	...	....	.....	....	....	....	....	....	..
Quennell (18 ")	90	42	49	95	333	199	....	808	808	808	808	808	808	627	532	532	532	199	808	171	172	.....	....	....	....	....	...	..

South Ward (3 Divisions)	43	17	24	41	....	....	....	125	125	125	125	125	125	41	.....	.....	.....	....	125	....	....	43	....	....	....	....	....	....	....	....
Nelson (17 Divisions)	92	49	83	84	190	180	....	678	678	678	678	678	678	454	370	370	370	180	678	163	166	54	....	....	....	....	....	....	....	....
New Westminster:																														
F. W. Howay (10 Div.)	51	26	24	66	113	111	....	391	391	391	391	391	391	290	224	224	224	111	391	95	120	391	....	....	....	....	....	....	....	....
Lord Kelvin (8 ")	109	58	57	91	....	....	....	315	315	315	315	315	315	91	.....	.....	....	....	315	....	....	315	....	....	....	....	....	....	....	....
Lord Lister (8 ")	....	....	....	....	176	121	....	297	297	297	297	297	297	297	297	297	297	121	297	65	95	297	....	....	....	....	....	....	....	....
Richard McBride (9 ")	64	21	24	66	95	80	....	350	350	350	350	350	350	241	175	175	175	80	350	50	66	350	....	....	....	....	....	....	....	....
Queensborough (2 ")	21	13	8	20	24	....	....	86	86	86	86	86	86	44	24	24	24	....	86	9	4	86	....	....	....	....	....	....	....	....
John Robson (11 ")	51	18	19	49	120	105	....	362	362	362	362	362	362	274	225	225	225	105	362	95	67	362	....	....	....	....	....	....	....	....
Herbert Spencer (8 ")	47	23	32	49	88	77	....	316	316	316	316	316	316	214	165	165	165	77	316	53	63	316	....	....	....	....	....	....	....	....
Phoenix (5 Divisions)	36	20	12	22	50	32	....	172	172	172	172	172	172	104	82	82	82	32	172	....	....	36	....	....	....	....	....	....	....	....
Port Alberni (3 Divisions)	24	12	10	14	23	25	....	108	108	108	108	108	108	62	48	48	48	25	108	....	....	.....	....	....	....	....	....	....	....	....
Port Coquitlam:																														
Central (4 Div.)	19	10	8	29	23	40	....	129	129	129	129	129	129	92	63	63	63	40	129	....	....	37	....	....	....	....	....	....	....	....
James Park (2 ")	13	9	7	7	20	5	....	61	61	61	61	61	61	32	25	25	25	5	61	....	....	61	....	....	....	....	....	....	....	....
Port Moody (5 Divisions)	27	17	19	28	35	29	3	158	158	158	157	155	157	92	64	64	67	32	158	....	....	36	3	3	3	3	1	1		
Prince George (4 Divisions)	38	23	10	33	30	28	10	172	172	172	171	162	171	91	58	58	68	38	172	....	....	105	10	10	10	10	1	1		
Prince Rupert (14 Divisions)	83	44	32	67	166	77	....	469	469	469	469	469	469	310	243	243	243	77	469	56	65	195	....	....	....	....	....	....	....	....
Revelstoke:																														
Central (7 Divisions)	42	18	13	46	77	76	....	272	272	272	272	272	272	199	153	153	153	76	272	....	....	31	....	....	....	....	....	....	....	....
Selkirk (9 ")	65	31	30	56	101	79	....	362	362	362	362	362	362	236	180	180	180	79	362	....	....	.....	....	....	....	....	....	....	....	....
Rossland:																														
Central (10 Divisions)	53	63	31	111	91	80	....	429	429	429	429	429	429	282	171	171	171	80	429	....	....	48	....	....	....	....	....	....	....	....
Cook Avenue (6 ")	44	24	25	35	105	15	...	248	248	248	248	248	248	155	120	120	120	15	248	....	....	.....	....	....	....	....	....	....	....	....
Salmon Arm (3 Divisions)	26	10	9	25	25	30	....	125	125	125	125	125	125	80	55	55	55	30	125	....	....	45	....	....	....	....	....	....	....	....
Sandon	16	....	4	10	15	7	....	52	52	52	52	52	52	32	22	22	22	7	52	....	....	.....	....	....	....	....	....	....	....	....
Slocan (2 Divisions)	6	6	9	11	19	14	....	65	65	65	65	65	65	44	33	33	33	14	65	....	....	.....	....	....	....	....	....	....	....	....
Trail:																														
Central (11 Divisions)	117	46	49	121	108	87	....	528	528	528	528	528	528	316	195	195	195	87	528	....	....	100	....	....	....	....	....	....	....	....
Smelter Hill	8	4	3	8	12	2	....	37	37	37	37	37	37	22	14	14	14	2	37	....	....	37	....	....	....	....	....	....	....	....
Vancouver:																														
Aberdeen (8 Div.)	90	19	48	104	98	44	....	403	403	403	403	403	403	246	142	142	142	44	403	48	48	403	....	....	....	....	....	....	....	....

TABLE B.—Abstract of Studies, &c., pursued in the *Graded City Schools* for the year 1916-1917.—*Continued.*

GRADED CITY SCHOOLS.	First Primer.	Second Primer.	First Reader.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.	Writing.	Dictation and Spelling.	Composition.	Arithmetic.	Nature Lessons & Hygiene.	Drawing.	Geography.	Canadian History.	British History.	English Grammar.	English Literature.	Physical Exercises.	Manual Training.	Domestic Science (Needlework, etc.).	Music.	Algebra.	Geometry.	Latin.	French.	Physical Science.	Botany.
Vancouver.—*Concluded:*																												
Alexandra (13 Div.)	115	41	37	88	195	106	....	582	582	582	582	582	582	389	301	301	301	106	582	127	145	582	....	....	....	....	....	..
Bayview (6 ")	56	26	20	41	80	36	...	259	259	259	259	259	259	157	116	116	116	36	259	38	35	259	...	....	....	....	....	..
Beaconsfield (5 ")	43	16	16	44	45	30	....	194	194	194	194	194	194	119	75	75	75	30	194	19	25	194	....	....	....	....	....	..
Central (14 ")	96	21	69	105	179	128	....	598	598	598	598	598	598	412	307	307	307	128	598	73	120	598	....	....	....	....	....	..
Children's Home (4 ")	26	7	16	30	44	27	....	150	150	150	150	150	150	101	71	71	71	27	150	34	37	150	....	....	....	....	....	..
Dawson (22 ")	128	56	52	123	292	304	....	955	955	955	955	955	955	719	596	596	596	304	955	215	283	955	....	....	....	....	....	..
Charles Dickens (7 ")	59	13	18	49	99	43	....	286	286	286	286	286	286	196	147	147	147	48	286	28	44	286	...	....	....	....	....	..
Fairview (14 ")	103	57	60	99	174	140	....	633	633	633	633	633	633	413	314	314	314	140	633	118	96	633	....	....	....	....	....	..
Franklin (5 ")	41	14	11	34	57	27	....	184	184	184	184	184	184	118	84	84	84	27	184	12	15	184	....	..	....	....	....	..
Simon Fraser (13 ")	101	38	39	80	117	151	....	526	526	526	526	526	526	348	268	268	268	151	526	102	128	526	....	....	....	....	....	..
General Gordon (8 ")	68	22	26	50	120	86	....	372	372	372	372	372	372	256	206	206	206	86	372	87	92	372	....	....	....	....	....	..
Grandview (11 ")	84	32	43	77	134	126	....	496	496	496	496	496	496	337	260	260	260	126	496	59	67	496	....	....	....	....	....	..
Hastings (11 ")	80	18	34	106	86	124	...	448	448	448	448	448	448	316	210	210	210	124	448	80	88	448	....	....	....	....	....	..
Henry Hudson (12 ")	91	39	45	115	137	76	....	503	503	503	503	503	503	328	213	213	213	76	503	81	85	503	....	....	....	....	....	.
Kitsilano (10 ")	83	30	37	53	124	103	....	430	430	430	430	430	430	280	227	227	227	103	430	45	58	430	....	....	....	....	....	..
Livingstone (8 ")	62	37	31	63	93	65	....	351	351	351	351	351	351	221	158	158	158	65	351	48	57	351	...	....	....	....	....	..
Model (12 ")	86	32	34	86	155	122	....	515	515	515	515	515	515	363	277	277	277	122	515	131	122	515	....	....	....	....	....	..
Mt. Pleasant (16 ")	110	67	60	91	226	132	....	686	686	686	686	686	686	449	358	358	358	132	686	126	134	686	....	....	....	....	...	..
Macdonald (9 ")	94	21	34	52	121	71	....	393	393	393	393	393	393	244	192	192	192	71	393	94	73	393	....	....	....	...	....	..
Lord Nelson (15 ")	105	39	36	113	209	133	....	635	635	635	635	635	635	455	342	342	342	133	635	124	96	635	....	....	....	....	....	..
Florence Nightingale (14 ")	128	36	60	107	183	133	....	647	647	647	647	647	647	423	316	316	316	133	647	113	153	647	....	....	....	....	....	..

Cecil Rhodes	(9 Div.)	50	32	21	52	121	96	....	372	372	372	372	372	372	269	217	217	217	96	372	59	73	372	....	....	....	....	....	..
Roberts	(21 ")	149	60	66	158	302	187	....	922	922	922	922	922	922	647	489	489	489	187	922	247	223	922	....	....	....	....	....	..
Laura Secord	(8 ")	71	22	29	57	110	42	....	331	331	331	331	331	331	209	152	152	152	42	331	56	54	331	....	....	....	....	....	..
Seymour	(13 ")	98	43	51	91	150	98	....	531	531	531	531	531	531	339	248	248	248	98	531	128	104	531	....	....	....	....	....	..
Strathcona	(16 ")	130	45	76	178	153	114	....	696	696	696	696	696	696	445	267	267	267	114	696	93	95	696	....	....	....	....	....	..
Tennyson	(13 ")	100	45	35	103	162	109	....	554	554	554	554	554	554	374	271	271	271	109	554	90	116	554	....	....	....	....	....	..
School for the Blind	.....	2	2	2	1	....	....	...	7	7	7	7	7	.. .	.....	.....	.....	.....	....	7	....	....	7	....	....	....	....	....	..
School for the Deaf	(2 Div.)	4	2	2	3	1	....	....	12	12	12	12	12	12	.....	.....	.....	.....	....	12	....	....	.....	....	..	....	....	....	..
Vancouver, North:																														
Lonsdale	(6 Divisions).....	31	16	21	27	79	45	....	219	219	219	219	219	219	151	124	124	124	45	219	58	66	116	....	....	....	....	....	..
Queen Mary	(8 ").....	53	24	24	55	71	72	....	299	299	299	299	299	299	198	143	143	143	72	299	68	75	146	....	....	....	....	....	..
Ridgeway	(8 ").....	61	18	27	44	92	78	....	320	320	320	320	320	320	214	170	170	170	78	320	28	50	122	...	....	....	...	....	..
Vernon:																														
Central	(10 Divisions)..	95	38	43	....	126	104	....	406	406	406	406	406	406	230	230	230	230	104	406	81	73	84	...	....	....	....	....	..
Mason Street	(4 ")..	....	....	....	117	42	....	....	159	159	159	159	159	159	159	42	42	42	...	159	23	19	.....	....	....	....	....	....	..
Victoria:																														
Bank St.	(4 Div.)	70	1	41	56	....	....	....	168	168	168	168	168	168	56	.....	.....	.....	...	168	..	54	168	....	....	....	....	....	..
Beacon Hill	(4 ")	29	36	48	53	....	...	...	166	166	166	166	166	166	53	.....	.....	.....	....	166	.. .	50	166	....	....	....	...	....	..
Boys' Central	(11 ")	55	20	29	59	154	133	....	450	450	450	450	450	450	346	287	287	287	133	450	287	....	386	....	....	....	....	....	..
Burnside	(6 ")	41	....	38	47	63	28	....	217	217	217	217	217	217	138	91	91	91	28	217	21	70	217	....	....	....	....	....	..
Cook Street	.....	6	8	10	8	....	....	....	32	32	32	32	32	32	8	.....	.....	.....	....	32	....	15	32	....	....	....	....	....	..
Sir James Douglas	(10 Div.)	78	25	18	96	153	120	....	490	490	490	490	490	490	369	273	273	273	120	490	127	186	490	....	....	....	....	....	..
Fernwood	(2 ")	23	12	8	10	....	....	....	53	53	53	53	53	53	10	.....	.....	.....	....	53	....	10	53	....	...	....	....	....	.
Girls' Central	(13 ")	51	21	32	75	187	141	....	507	507	507	507	507	507	403	328	328	328	141	507	....	328	507	—	....	..	....	....	..
George Jay	(10 ")	....	....	....	43	193	136	....	372	372	372	372	372	372	372	329	329	329	136	372	152	198	372	....	....	....	...	....	..
Margaret Jenkins	(4 ")	34	14	20	22	32	23	....	145	145	145	145	145	145	77	55	55	55	23	145	30	38	145	....	....	...	....	....	..
King's Road	(3 ")	52	44	29	....	....	....	....	125	125	125	125	125	125	.....	.....	.....	.....	....	125	....	....	125	....	....	....	.. .	....	..
Kingston St.	(5 ")	45	44	39	65	...	....	....	193	193	193	193	193	193	65	.....	.. ...	.....	....	193	...	77	193	....	....	....	....	....	..
North Ward	(9 ")	....	....	2	71	154	124	...	351	351	351	351	351	351	349	278	278	278	124	351	96	175	351	....	...	....	....	....	..
Oaklands	(8 ")	41	17	41	42	117	65	....	323	323	323	323	323	323	224	182	182	182	65	323	54	112	323	....	....	....	....	....	..
Pembroke St.	.....	3	....	5	8	4	....	....	20	20	20	20	20	20	12	4	4	4	....	20	20	....	20	....	....	....	....	....	..
Quadra St., North	(8 Div.)	46	25	37	77	75	45	....	305	305	305	305	305	305	197	120	120	120	45	305	51	49	305	....	....	....	...	....	..

TABLE B.—Abstract of Studies, &c., pursued in the *Graded City Schools* for the year 1916-1917.—*Concluded.*

GRADED CITY SCHOOLS.	First Primer.	Second Primer.	First Reader.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.	Writing.	Dictation and Spelling.	Composition.	Arithmetic.	Nature Lessons & Hygiene.	Drawing.	Geography.	Canadian History.	British History.	English Grammar.	English Literature.	Physical Exercises.	Manual Training.	Domestic Science (Needlework, etc.).	Music.	Algebra.	Geometry.	Latin.	French.	Physical Science.	Botany.
Victoria.—*Concluded:*																												
Rock Bay (closed)	....	....	....	....	....	....	....	.....	....	.....	....	.....	.....	.....	.....	....	.....	...	.....	...	...	.....	...	....	....	....	....	..
South Park (9 Div.)	....	....	....	....	155	208	....	363	363	363	363	363	363	363	363	363	363	208	363	172	191	363	....	....	....	....	....	..
Spring Ridge (4 ")	82	17	50	42	....	....	.	191	191	191	191	191	191	42	.....	.....	.....	....	191	....	75	191	....	....	....	....	....	..
West (10 ")	15	57	19	92	115	105	....	403	403	403	403	403	403	312	220	220	220	105	403	92	182	403	....	....	....	....	....	..
Child Study Laboratory	5	....	12	2	...	1	....	20	20	20	20	20	20	8	1	1	1	1	20	....	....	.....	...	....	....	....	....	..
Grand total for 1916-1917	5440	2417	2874	5626	9137	6721	49	32264	32261	32264	32241	32215	32234	21479	15857	15861	15902	6770	32264	4894	5902	23481	49	49	49	49	23	23
" 1915-1916	5041	2495	3245	5622	8635	6439	46	31523	31523	31523	31510	31488	31506	20696	15074	15074	15109	6485	31523	4649	4989	22836	46	46	46	46	13	13

TABLE B — Abstract of Studies, &c., pursued in the *Rural Municipality Schools* for the year 1916-1917.

RURAL MUNICIPALITY SCHOOLS.	First Primer.	Second Primer.	First Reader.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.	Writing.	Dictation and Spelling.	Composition.	Arithmetic.	Nature Lessons & Hygiene.	Drawing.	Geography.	Canadian History.	British History.	English Grammar.	English Literature.	Physical Exercises.	Manual Training.	Domestic Science (Needle work, etc.).	Music.	Algebra.	Geometry.	Latin.	French.	Physical Science.	Botany.
Burnaby :																												
Armstrong Avenue	12	....	3	7	5	....	....	27	27	27	27	27	27	12	5	5	5	....	27	....	....	....	....	....	....	....	....	..
Barnet	4	....	2	3	4	2	....	15	15	15	15	15	15	9	6	6	6	2	15	....	....	15	....	....	....	..	....	..
Douglas Road	5	3	4	7	8	4	....	31	31	31	31	31	31	19	12	12	12	4	31	4	....	.....	....	....	....	....	....	.
Edmonds St. (7 Divisions)	40	22	30	57	73	68	....	290	290	290	290	290	290	198	141	141	141	68	290	55	67	43	....	....	....	....	....	..
Gilmore Ave. (8 Divisions)	74	13	45	73	95	67	....	367	367	367	367	367	367	235	162	162	162	67	367	54	61	197	....	....	....	....	....	..
Hamilton Road	5	....	6	4	9	7	....	31	31	31	31	31	31	20	16	16	16	7	31	....	....	31	....	....	....	....	....	..
Howard Avenue	7	9	2	9	9	....	....	36	36	36	36	36	36	18	9	9	9	....	36	3	6	36	....	....	....	....	....	..
Inman Avenue (2 Divisions)	10	6	9	11	23	10	....	69	69	69	69	69	69	44	33	33	33	10	69	10	16	69	....	....	....	....	....	.
Kingsway, East (2 Divisions)	10	8	5	17	15	12	..	67	67	67	67	67	67	44	27	27	27	12	67	11	6	31	....	....	....	....	....	..
Kingsway, West (7 Divisions)	47	12	23	46	71	59	....	258	258	258	258	258	258	176	130	130	130	59	258	45	40	139	....	....	....	....	....	.
Nelson Ave. (3 Divisions)	19	5	12	26	28	14	....	104	104	104	104	104	104	68	42	42	42	14	104	20	16	68	....	....	....	....	....	..
Riverway, East (2 Divisions)	10	4	....	16	13	10	....	53	53	53	53	53	53	39	23	23	23	10	53	8	15	.....	....	....	....	....	....	..
Schou St. (2 Divisions)	15	4	....	13	20	8	....	55	55	55	55	55	55	36	23	23	23	3	55	2	3	27	....	....	....	....	....	..
Second St.	9	26	....	....	....	....	....	35	35	35	35	35	35	.....	.....	.....	.....	....	35	....	....	.....	....	....	....	....	....	..
Sperling Ave.	7	5	1	5	5	9	....	32	32	32	32	32	32	19	14	14	14	9	32	4	..	.....	....	....	....	....	....	..
Chilliwack :	274	117	142	294	378	265	....	1470	1470	1470	1470	1470	1470	937	643	643	643	265	1470	216	230	656	...	....	....	...	...	.
Atchelitz (3 Divisions)	16	9	8	12	17	20	....	82	82	82	82	82	82	49	37	37	37	20	82	12	13	33	....	....	....	....	....	..
Camp Slough (2 Divisions)	6	3	6	8	9	8	....	40	40	40	40	40	40	25	17	17	17	8	40	7	10	.....	....	....	....	....	....	..
Cheam (2 Divisions)	13	6	6	9	11	13	....	58	58	58	58	58	58	33	24	24	24	13	58	13	11	.....	....	....	....	....	....	..
Chilliwack, East (2 Divisions)	8	2	5	14	7	12	....	48	48	48	48	48	48	33	19	19	19	12	48	4	11	29	...	....	....	....	....	..
Fairfield Island	9	2	6	7	17	4	....	45	45	45	45	45	45	28	21	21	21	4	45	4	....	.....	....	....	....	....	....	..

TABLE B.—Abstract of Studies, &c., pursued in the *Rural Municipality Schools* for the year 1916-1917.—*Continued.*

RURAL MUNICIPALITY SCHOOLS.	First Primer.	Second Primer.	First Reader.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.	Writing.	Dictation and Spelling.	Composition.	Arithmetic.	Nature Lessons & Hygiene.	Drawing.	Geography.	Canadian History.	British History.	English Grammar.	English Literature.	Physical Exercises.	Manual Training.	Domestic Science (Needlework, etc.).	Music.	Algebra.	Geometry.	Latin.	French.	Physical Science.	Botany.
Chilliwack.—*Concluded:*																												
Lotbiniere (2 Divisions)	7	9	6	14	9	17	....	62	62	62	62	62	62	40	26	26	26	17	62	13	13	.....	....	....	...	....	....	..
Parson's Hill	5	2	1	5	3	4	....	20	20	20	20	20	20	12	7	7	7	4	20	....	....	.....	....	....	....	....	....	..
Promontory Flats	....	....	1	8	3	4	....	16	16	16	16	16	16	15	7	7	7	4	16	4	....	.....	....	....	....	....	....	..
Rosedale (3 Divisions)	30	8	13	12	24	22	....	109	109	109	109	109	109	58	46	46	46	22	109	11	19	.....	....	....	....	....	....	..
Sardis (3 Divisions)	25	12	6	10	34	37	....	124	124	124	124	124	124	81	71	71	71	37	124	28	29	43	....	...	....	....	....	..
Strathcona (2 Divisions)	8	7	4	12	14	15	....	60	60	60	60	60	60	41	29	29	29	15	60	10	....	.....	....	....	....	....	....	..
Sumas	3	....	....	4	3	....	....	10	10	10	10	10	10	7	3	3	3	....	10	....	....	.....	....	....	....	....	....	..
Vedder Creek	2	1	1	1	1	4	....	10	10	10	10	10	10	6	5	5	5	4	10	....	....	10	....	....	....	....	....	..
Yarrow	....	....	1	3	2	1	....	7	7	7	7	7	7	6	3	3	3	1	7	2	....	.....	....	....	....	....	....	..
Coldstream:	132	61	64	119	154	161	....	691	691	691	691	691	691	434	315	315	315	161	691	108	106	115	....	....	...	....	..	..
Coldstream	4	1	5	4	8	6	....	28	28	28	28	28	28	18	14	14	14	6	28	....	....	.....	...	...	....	....	..	..
Lavington	4	...	3	6	2	5	....	20	20	20	20	20	20	13	7	7	7	5	20	....	....	.....	...	....	....	....	..	..
Coquitlam:	8	1	8	10	10	11	....	48	48	48	48	48	48	31	21	21	21	11	48	....	....	.....	....	....	....	....	....	..
Blue Mountain (2 Divisions)	6	2	6	7	5	10	....	36	36	36	36	36	36	22	15	15	15	10	26	....	....	21	....	....	....	....	....	..
Coquitlam, East	2	3	....	2	2	2	...	11	11	11	11	11	11	6	4	4	4	2	11	....	...	11	...	..	....	....	....	..
The Glen	3	2	....	4	1	4	....	14	14	14	14	14	14	9	5	5	5	4	14	....	....	.....	....	....	....	....	....	..
Millside (2 Divisions)	8	4	11	4	8	3	....	38	38	38	38	38	38	15	11	11	11	3	38	....	....	.....	....	....	....	....	....	..
Silver Valley	4	....	....	1	2	2	...	9	9	9	9	9	9	5	4	4	4	2	9	....	....	9	....	....	....	....	...	..
Cowichan, North:	23	11	17	18	18	21	....	108	108	108	108	108	108	57	39	39	39	21	108	....	....	41	....	....	....	....	....	..
Chemainus (3 Divisions)	12	6	7	16	14	21	4	80	80	80	79	76	79	51	35	35	39	25	80	....	....	.....	4	4	4	3	1	1
Crofton	6	....	2	2	4	3	....	17	17	17	17	17	17	9	7	7	7	3	17	....	....	.....	....	....	....	....	....	..

Maple Bay	2	1	1	3	2	3	....	12	12	12	12	12	12	8	5	5	5	3	12	....	....	.....	....	....	....	....	....	..
Quamichan	2	....	....	....	10	10	....	22	22	22	22	22	22	20	20	20	20	10	22	....	....	.....	....	....	....	....	....	..
Somenos	3	2	5	3	3	3	....	19	19	19	19	19	19	9	6	6	6	3	19	....	....	.....	....	....	....	....	....	..
Somenos Station	1	1	3	6	8	3	....	22	22	22	22	22	22	17	11	11	11	3	22	....	....	.....	....	....	....	....	....	..
Westholme	6	....	....	8	4	5	....	23	23	23	23	23	23	17	9	9	9	5	23	....	....	.....	....	....	....	....	....	..
Delta:	32	10	18	38	45	48	4	195	195	195	194	191	194	131	93	93	97	52	195	....	....	.....	4	4	4	3	1	1
Annieville	9	8	2	4	3	7	....	33	33	33	33	33	33	14	10	10	10	7	33	....	....	.....	....	....	....	....	....	..
Boundary Bay	8	....	8	8	1	1	....	26	26	26	26	26	26	10	2	2	2	1	26	....	....	.....	....	....	....	....	....	..
Canoe Pass	3	5	....	14	10	6	....	38	38	38	38	38	38	30	16	16	16	6	38	....	....	.....	....	....	....	....	....	..
Delta, East	3	2	3	4	1	9	....	22	22	22	22	22	22	14	10	10	10	9	22	....	....	.....	....	....	....	....	....	..
Inverholme	3	....	...	2	4	5	....	14	14	14	14	14	14	11	9	9	9	5	14	....	....	14	....	....	....	....	....	..
Ladner (4 Divisions)	27	14	8	20	45	37	....	151	151	151	151	151	151	102	82	82	82	37	151	30	42	126	....	....	....	....	....	..
Sunbury	8	2	3	5	4	....	....	22	22	22	22	22	22	9	4	4	4	....	22	....	....	.....	....	....	....	....	....	..
Trenant	5	1	7	2	2	12	...	29	29	29	29	29	29	16	14	14	14	12	29	....	....	.....	....	....	....	....	....	.
Westham Island	4	4	3	3	4	3	..	21	21	21	21	21	21	10	7	7	7	3	21	....	....	.....	....	....	....	....	....	..
Esquimalt:	70	36	34	62	74	80	....	356	356	356	356	356	356	216	154	154	154	80	356	30	42	140	....	....	....	....	....	..
Esquimalt (14 Divisions)	88	34	57	94	182	98	....	553	553	553	553	553	553	374	280	280	280	98	553	127	131	126	....	....	....	....	....	..
Kent:																												
Agassiz (3 Divisions)	15	12	14	10	28	31	....	110	110	110	110	110	110	69	59	59	59	31	110	....	....	.....	....	....	....	....	....	..
Harrison Hot Springs	3	....	1	1	6	4	....	15	15	15	15	15	15	11	10	10	10	4	15	....	...	.....	....	....	....	....	....	..
Harrison River	1	1	2	6	2	9	...	21	21	21	21	21	21	17	11	11	11	9	21	....	....	.....	...	...	...	....	....	..
McBride	9	2	4	6	5	....	....	26	26	26	26	26	26	11	5	5	5	....	26	....	....	.....	...	....	...	....	....	..
Langley:	28	15	21	23	41	44	....	172	172	172	172	172	172	108	85	85	85	44	172	....	...	.....	....	....		....	....	..
Aldergrove (2 Divisions)	12	5	7	8	20	3	....	55	55	55	55	55	55	31	23	23	23	3	55	....	....	.....	....	....	....	....	....	..
Beaver	9	3	1	7	8	9	....	37	37	37	37	37	37	24	17	17	17	9	37	....	....	.....	....	....	....	....	...	..
Belmont (3 Div., Superior)	19	3	3	10	15	14	31	95	95	95	84	64	84	39	29	29	60	45	95	....	....	.....	31	31	10	31	11	11
Glen Valley	1	1	6	5	8	6	....	27	27	27	27	27	27	19	14	14	14	6	27	....	..	.....	....	..	...	....	....	..
Glenwood	3	....	4	6	3	1	....	17	17	17	17	17	17	10	4	4	4	1	17	....	....	.....	....	....	....	....	....	.
Langley (3 Divisions)	30	4	3	19	15	17	....	88	88	88	88	88	88	51	32	32	32	17	88	....	....	64	....	....	....	....	....	..
Langley, East	6	2	3	3	8	7	....	29	29	29	29	29	29	18	15	15	15	7	29	....	...	29	...	....	....	....	....	..
Langley Prairie (2 Div.)	16	8	11	11	18	14	....	78	78	78	78	78	78	43	32	32	32	14	78	..	....	.....	....	....	....	....	....	..
Langley, West	9	3	....	....	7	1	....	20	20	20	20	20	20	8	8	8	8	1	20	....	....	20	...	....	....	....	....	..

TABLE B.—Abstract of Studies, &c., pursued in the *Rural Municipality Schools* for the year 1916-1917.—*Continued.*

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Langley.—*Concluded:*																												
Lochiel	3	1	4	4	....	1	....	13	13	13	13	13	13	5	1	1	1	1	13	...	....	13	....	....	....	....	....	..
Milner (2 Divisions)	8	3	6	1	15	16	....	49	49	49	49	49	49	32	31	31	31	16	49	....	....	.....	....	....	....	..	....	..
Otter	4	1	4	5	3	3	....	20	20	20	20	20	20	11	6	6	6	3	20	....	....	.....	....	....	....	....	....	..
Patricia	6	....	....	9	7	7	....	29	29	29	29	29	29	23	14	14	14	7	29	....	...	29	....	....	....	....	....	..
Springbrook	4	4	2	6	4	7	....	27	27	27	27	27	27	17	11	11	11	7	27	....	....	.....	....	....	....	....	....	..
Maple Ridge:	130	38	54	94	131	106	31	584	584	584	573	553	573	331	237	237	268	137	584	....	....	155	31	31	10	31	11	11
Albion	8	4	3	6	10	7	....	38	38	38	38	38	38	23	17	17	17	7	38	8	...	.....	....	....	....	....	....	..
Hammond (2 Divisions)	11	7	11	9	14	13	....	65	65	65	65	65	65	36	27	27	27	13	65	11	....	38	....	....	...	....	....	..
Haney (3 Divisions, Superior)	22	3	4	8	10	30	8	85	85	85	80	77	80	48	40	40	48	38	85	28	20	.....	8	8	8	8	5	5
Lillooet, South	3	....	....	4	5	6	....	18	18	18	18	18	18	15	11	11	11	6	18	4	....	.....	....	....	....	....	....	..
Maple Ridge (3 Div., Sup.)	21	....	7	16	10	13	28	95	95	95	77	67	77	39	23	23	51	41	95	13	16	44	28	28	28	28	18	18
Alexander Robinson (2 Div.)	7	3	4	8	7	14	....	43	43	43	43	43	43	29	21	21	21	14	43	12	9	22	....	....	....	....	....	..
Ruskin (2 Divisions)	6	1	7	5	12	5	....	36	36	36	36	36	36	22	17	17	17	5	36	10	7	18	....	....	....	....	....	..
Webster's Corners	5	....	5	4	4	2	....	20	20	20	20	20	20	10	6	6	6	2	20	4	....	.....	....	....	...	....	....	.
Whonnock (2 Divisions)	7	4	8	8	12	16	....	55	55	55	55	55	55	36	28	28	28	16	55	9	....	27	....	....	...	....	....	..
Matsqui:	90	22	49	68	84	106	36	455	455	455	432	419	432	258	190	190	226	142	455	99	52	149	36	36	36	36	23	23
Aberdeen	10	....	5	4	4	9	....	32	32	32	32	32	32	17	13	13	13	9	32	....	....	.....	....	....	....	....	....	..
Bradner (2 Divisions)	8	5	5	12	12	13	....	55	55	55	55	55	55	37	25	25	25	13	55	...	...	30	....	....	....	....	...	.
Clayburn (2 Divisions)	15	5	5	9	17	8	....	59	59	59	59	59	59	34	25	25	25	8	59	....	....	.....	....	....	....	...	....	..
Dunach	3	....	2	5	2	6	...	18	18	18	18	18	18	13	8	8	8	6	18	....	....	.....	.	....	....	....	....	..
Glenmore	4	4	2	2	7	5	....	24	24	24	24	24	24	14	12	12	12	5	24	....	....	24	....	...	...	....	....	..

Jubilee	....	3	2	....	....	2	....	7	7	7	7	7	7	2	2	2	2	2	7	....	....	.....	....	....	....	....	....	..		
Malsqui (2 Divisions)	3	7	7	10	6	17	..	50	50	50	50	50	50	33	23	23	23	17	50	....	....	28	....	....	....	....	..			
Mt. Lehman (2 Divisions)	12	2	3	5	6	6	8	42	42	42	42	34	42	17	12	12	20	14	42	....	....	.....	8	8	8	8	....			
Peardonville	3	3	6	6	3	6	....	27	27	27	27	27	27	15	9	9	9	6	27	....	....	.....	....	....	....	....	....			
Poplar	4	....	3	3	5	4	....	19	19	19	19	19	19	12	9	9	9	4	19	....	....	.....	....	....	....	....	....			
Ridgedale (2 Divisions)	11	3	4	6	15	6	....	45	45	45	45	45	45	27	21	21	21	6	45	...	....	24	....	....	....	....	....			
Mission :	73	32	44	62	77	82	8	378	378	378	378	370	378	221	159	159	167	90	378	....	....	106	8	8	8	8	....			
Ferndale	3	....	....	....	1	3	....	7	7	7	7	7	7	4	4	4	4	3	7	2	....	.....	....	....	....	....	....			
Hatzic (2 Divisions)	4	6	5	6	9	17	...	47	47	47	47	47	47	32	26	26	26	17	47	18	8	26	....	....	....	....	....			
Mission (5 Divisions)	24	22	17	27	75	38	....	203	203	203	203	203	203	140	113	113	113	38	203	39	47	165	....	....	....	....	....			
Silverdale	9	3	....	7	4	4	....	27	27	27	27	27	27	15	8	8	8	4	27	....	....	.....	....	....	....	....	....			
Silverhill	6	3	1	3	1	1	....	15	15	15	15	15	15	5	2	2	2	1	15	....	....	.....	....	....	....	....	....			
Stave Falls	3	1	1	2	2	1	....	10	10	10	10	10	10	5	3	3	3	1	10	....	....	.....	....	....	....	....	....			
Stave Gardens	3	5	3	....	5	3	....	19	19	19	19	19	19	8	8	8	8	3	19	....	....	19	....	....	....	....	....			
Steelhead	3	2	1	2	6	2	....	16	16	16	16	16	16	10	8	8	8	2	16	....	....	16	....	....	....	....	....			
Oak Bay :	55	42	28	47	103	69	....	344	344	344	344	344	344	219	172	172	172	69	344	59	55	226	....	....	....	....	....			
Oak Bay (8 Divisions)	49	26	37	72	73	63	...	320	320	320	320	320	320	208	136	136	136	63	320	65	71	212	....	....	....	....	....			
Willows (4 Divisions)	33	16	6	35	38	21	....	149	149	149	149	149	149	94	59	59	59	21	149	8	3	62	....	....	....	....	....			
Peachland :	82	42	43	107	111	84	....	469	469	469	469	469	469	302	195	195	195	84	469	73	74	274	....	....	....	....	....			
Peachland (2 Divisions)	15	8	8	9	17	16	....	73	73	73	73	73	73	42	33	33	33	16	73	....	....	.....	....	....	....	....	....			
Trepanier	2	1	6	3	4	5	...	21	21	21	21	21	21	12	9	9	9	5	21	....	....	.....	....	....	....	....	....			
Penticton :	17	9	14	12	21	21	....	94	94	94	94	94	94	54	42	42	42	21	94	....	....	.....	....	....	....	....	....			
Ellis (10 Divisions)	75	28	25	83	111	62	....	384	384	384	384	384	384	256	173	173	173	62	384	24	38	128	....	....	....	....	....			
Poplar Grove	2	...	1	2	6	3	....	14	14	14	14	14	14	11	9	9	9	3	14	1	2	.....	....	....	....	....	....			
Pitt Meadows :	77	28	26	85	117	65	....	398	398	398	398	398	398	267	182	182	182	65	398	25	40	128	....	....	....	....	....			
Pitt Meadows	6	2	4	11	6	10	....	39	39	39	39	39	39	27	16	16	16	10	39	....	...	39	....	....	....	....	....			
Richardson	2	2	2	3	4	9	....	22	22	22	22	22	22	16	13	13	13	9	22	....	....	.....	....	....	....	....	....			
Point Grey :	8	4	6	14	10	19	....	61	61	61	61	61	61	43	29	29	29	19	61	....	..	39	....	....	....	....	....			
Eburne (7 Divisions)	53	17	16	54	68	64	....	272	272	272	272	272	272	186	132	132	132	64	272	55	48	272	....	....	....	....	....			
Kerrisdale (5 Divisions)	29	14	17	44	53	42	....	199	199	199	199	199	199	139	95	95	95	42	199	29	39	199	....	..	....	....	....			
Lord Kitchener (3 Divisions)	23	..	9	21	31	18	....	102	102	102	102	102	102	70	49	49	49	18	102	25	24	102	...	....	..	....	....			
Magee (3 Divisions)	24	10	12	25	46	12	....	129	129	129	129	129	129	83	58	58	58	12	129	19	22	129	....	....	....	....	....			

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Point Grey.—*Concluded:*																												
Queen Mary, (5 Divisions)	19	12	20	27	52	38	....	168	168	168	168	168	168	117	90	90	90	38	168	44	46	168	....	....	....	....	....	..
Shaughnessy (6 Divisions)	33	14	20	44	78	43	....	232	232	232	232	232	232	165	121	121	121	43	232	66	55	198	....	....	....	....	....	..
Richmond:	181	67	94	215	328	217	....	1102	1102	1102	1102	1102	1102	760	545	545	545	217	1102	238	234	1068	....	....	....	....	....	..
Bridgeport (5 Divisions)	41	14	5	31	52	47	....	190	190	190	190	190	190	130	99	99	99	47	190	44	55	.....	....	..	....	....	....	..
English (2 Divisions)	8	6	7	13	17	5	....	56	56	56	56	56	56	35	22	22	22	5	56	4	2	56	....	....	....	....	....	..
Lulu	3	2	2	4	2	5	....	18	18	18	18	18	18	11	7	7	7	5	18	3	3	.....	....	....	....	....	....	..
Mitchell	5	2	8	9	6	....	....	30	30	30	30	30	30	15	6	6	6	....	30	....	....	.....	....	....	....	....	....	..
Steveston (3 Divisions)	26	13	13	27	33	10	....	122	122	122	122	122	122	70	43	43	43	10	122	19	24	48	....	....	....	....	....	..
Trites	3	3	....	4	1	2	...	13	13	13	13	13	13	7	3	3	3	2	13	....	....	13	....	....	....	....	....	..
Saanich:	86	40	35	88	111	69	....	429	429	429	429	429	429	268	180	180	180	69	429	70	84	117	....	....	....	....	....	..
Cadboro Bay	1	2	1	6	4	3	....	17	17	17	17	17	17	13	7	7	7	3	17	5	....	17	....	....	....	....	....	..
Cedar Hill (3 Divisions)	5	6	10	13	33	17	....	84	84	84	84	84	84	63	50	50	50	17	84	19	12	21	....	....	....	....	....	..
Craigflower (4 Divisions)	21	8	19	14	60	16	....	138	138	138	138	138	138	90	76	76	76	16	138	30	45	138	....	....	....	....	....	..
Gordon Head (2 Divisions)	11	....	6	5	12	13	....	47	47	47	47	47	47	30	25	25	25	13	47	12	22	47	....	....	....	....	....	..
Keating (2 Divisions)	2	4	8	15	17	18	....	64	64	64	64	64	64	50	35	35	35	18	64	....	....	35	....	....	....	....	....	..
Model (2 Divisions)	9	8	9	15	15	25	....	81	81	81	81	81	81	55	40	40	40	25	81	20	20	81	....	....	....	....	....	..
MacKenzie Avenue (4 Div.)	22	15	15	26	29	27	....	134	134	134	134	134	134	82	56	56	56	27	134	25	31	134	....	....	....	....	....	.
North Dairy (3 Divisions)	15	9	11	12	28	12	....	87	87	87	87	87	87	52	40	40	40	12	87	11	17	.....	....	....	....	....	....	..
Prospect Lake	2	1	2	4	10	2	....	21	21	21	21	21	21	16	12	12	12	2	21	7	6	.....	....	....	....	....	....	..
Royal Oak (2 Divisions)	3	5	4	10	15	6	....	43	43	43	43	43	43	31	21	21	21	6	43	8	13	.....	....	....	....	....	....	..
Saanichton (2 Divisions)	8	4	4	6	4	13	....	39	39	39	39	39	39	23	17	17	17	13	39	11	....	17	...	.....	....	....	....	..

Saanich, West (2 Divisions)	6	4	6	11	13	17	....	57	57	57	57	57	57	41	30	30	30	17	57	15	15	57	...	...	....	...	.	.		
Strawberry Vale (2 Div.)	12	7	9	8	18	11	....	65	65	65	65	65	65	37	29	29	29	11	65	13	16	.....	....	....	....	....	.			
Tillicum Road	20	9	....	....	....	....	....	29	29	29	29	29	29	.....	....	.....	.....	...	.....	....	....	29	....	....	....	....	....	..		
Tolmie (12 Divisions)	52	29	49	104	122	69	....	425	425	425	425	425	425	295	191	191	191	69	425	74	41	359	....	....	..	....	....	..		
Salmon Arm:	189	111	153	249	380	249	....	1331	1331	1331	1331	1331	1331	878	629	629	629	249	1331	250	238	935	....	....	....	....	....	..		
Canoe Creek, North	11	7	2	6	11	14	....	51	51	51	51	51	51	31	25	25	25	14	51	...	....	.....	....	....	....	....	....	..		
Canoe Creek, South	8	....	7	4	6	5	....	30	30	30	30	30	30	15	11	11	11	5	30	....	....	30	....	....	....	....	....	..		
Dolan's Corners	2	2	....	3	1	7	....	15	15	15	15	15	15	11	8	8	8	7	15	....	....	.....	....	..	....	....	....	..		
Gleneden	3	2	3	9	6	7	....	30	30	30	30	30	30	22	13	13	13	7	30	....	....	....	....	....	....	....	....	..		
Salmon Arm, West (2 Div.)	11	3	4	9	16	18	...	61	61	61	61	61	61	43	34	34	34	18	61	....	..	.....	....	....	....	....	....	..		
Spallumcheen:	35	14	16	31	40	51	....	187	187	187	187	187	187	122	91	91	91	51	187	....	....	30	....	....	....	....	....	..		
Bennett	3	1	3	3	3	5	....	18	18	18	18	18	18	11	8	8	8	5	18	3	2	.....	....	....	....	....	....	..		
Hullcar	2	1	1	4	3	7	....	18	18	18	18	18	18	14	10	10	10	7	18	3	6	18	....	....	....	....	....	..		
Knob Hill	4	....	....	3	9	10	....	26	26	26	26	26	26	22	19	19	19	10	26	9	3	....	....	....	....	....	....	..		
Lansdowne	3	...	....	1	5	7	....	16	16	16	16	16	16	13	12	12	12	7	16	7	2	.....	....	....	....	....	....	.		
Larkin	4	....	3	3	7	1	....	18	18	18	18	18	18	11	8	8	8	1	18	1	3	.....	....	....	....	....	..	..		
Otter Lake	3	1	5	7	5	4	....	25	25	25	25	25	25	16	9	9	9	4	25	2	2	.....	....	....	....	....	....	.		
Pleasant Valley	5	3	2	2	4	5	....	21	21	21	21	21	21	11	9	9	9	5	21	3	2	21	....	....	....	....	....	.		
Sumas:	24	6	14	23	36	39	....	142	142	142	142	142	142	98	75	75	75	39	142	28	20	39	....	....	....	....	....	..		
Huntingdon (2 Divisions)	4	5	6	9	13	16	....	53	53	53	53	53	53	38	29	29	29	16	53	....	....	24	...	....	....	....	....	..		
Kilgard	9	3	....	2	2	....	....	16	16	16	16	16	16	4	2	2	2	....	16	....	...	....	....	....	....	....	....	..		
Musselwhite	3	....	2	6	5	3	....	19	19	19	19	19	19	14	8	8	8	3	19	....	....	.....	....	..	....	....	....	..		
Straiton	....	....	1	6	5	2	....	14	14	14	14	14	14	13	7	7	7	2	14	....	....	14	....	....	....	....	....	..		
Sumas, Upper	7	1	3	3	..	2	....	16	16	16	16	16	16	5	2	2	2	2	16	....	....	16	....	....	....	....	....	..		
Summerland:	23	9	12	26	25	23	..	118	118	118	118	118	118	74	48	48	48	23	118	....	....	54	...	....	....	....	....	..		
Central (5 Divisions)	22	16	21	36	44	45	....	184	184	184	184	184	184	125	89	89	89	45	184	....	....	22	....	...	....	....	....	..		
Garnett Valley	4	1	....	5	3	....	....	13	13	13	13	13	13	8	3	3	3	....	13	....	....	13	....	....	....	....	....	..		
Trout Creek	11	....	3	1	...	....	....	15	15	15	15	15	15	1	.....	.....	.....	...	15	....	....	15	....	...	...	....	....	..		
Surrey:	37	17	24	42	47	45	....	212	212	212	212	212	212	134	92	92	92	45	212	....	....	50	....	....	....	....	....	.		
Anniedale	2	1	2	1	10	4	....	20	20	20	20	20	20	15	14	14	14	4	20	....	....	.....	...	...	....	..	...	..		
Clayton	1	2	....	5	5	1	....	14	14	14	14	14	14	11	6	6	6	1	14	...	...	.....	....	....	....	....	....	..		
Cloverdale (4 Div., Superior)	13	....	13	12	12	26	20	96	96	96	85	76	85	50	38	38	58	46	96	....	...	26	20	20	2	19	20	20		

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Surrey.—*Concluded:*																												
Crescent Beach	4	1	3	4	2	5	....	19	19	19	19	19	19	11	7	7	7	5	19	....	....	.....	....	....	....	....	....	..
Hall's Prairie (2 Divisions)	7	3	3	15	8	13	....	49	49	49	49	49	49	36	21	21	21	13	49	....	...	28	....	....	....	....	....	..
Hjorth Road	1	....	1	1	6	....	....	9	9	9	9	9	9	7	6	6	6	....	9	....	....	. ...	....	...	....	....	....	..
Johnston Road	9	....	5	7	2	3	....	26	26	26	26	26	26	12	5	5	5	3	26	....	....	.....	....	....	....	....	....	..
Kensington, East	5	....	....	4	4	2	....	15	15	15	15	15	15	10	6	6	6	2	15	....	....	.....	....	....	....	....	....	.
Kensington Prairie (2 Div.)	4	3	5	18	10	13	....	53	53	53	53	53	53	41	23	23	23	13	53	....	....	.....	....	....	....	....	...	..
Mud Bay	7	3	5	6	5	5	....	31	31	31	31	31	31	16	10	10	10	5	31	....	....	.....	...	....	....	....	....	..
Newton	10	1	2	3	4	7	....	27	27	27	27	27	27	14	11	11	11	7	27	...	....	.....	...	....	....	....	....	..
Port Mann	5	2	1	6	7	....	....	21	21	21	21	21	21	13	7	7	7	....	21	....	...	.....	...	....	....	....	....	..
Scott Road	6	2	....	5	3	5	....	21	21	21	21	21	21	13	8	8	8	5	21	....	....	21	....	...	....	....	....	..
Springdale	9	1	10	...	10	9	....	39	39	39	39	39	39	19	19	19	19	9	39	....	....	.....	....	...	....	....	....	..
Strawberry Hill	5	2	....	6	6	3	....	22	22	22	22	22	22	15	9	9	9	3	22	...	....	.....	....	....	....	....	....	..
Surrey Centre	5	1	3	3	8	...	....	20	20	20	20	20	20	11	8	8	8	....	20	....	...	20	....	....	....	....	...	
Tynehead (2 Divisions)	4	....	3	5	5	7	....	24	24	24	24	24	24	17	12	12	12	7	24	....	....	.....	....	...	....	..	....	..
Westminster, South	2	3	6	8	7	9	....	35	35	35	35	35	35	24	16	16	16	9	35	....	....	.....	....	...	....	....	....	.
White Rock (2 Divisions)	15	3	8	10	17	13	....	66	66	66	66	66	66	40	30	30	30	13	66	....	....	36	....	.	....	....	....	..
Vancouver, North:	114	28	70	119	131	125	20	607	607	607	596	587	596	375	256	256	276	145	607	....	...	131	20	20	2	19	20	20
Capilano (2 Divisions)	4	....	4	7	11	9	....	35	35	35	35	35	35	27	20	20	20	9	35	....	....	18	....	....	....	....	...	..
Keith Lynn (2 Divisions)	7	2	....	3	14	8	....	34	34	34	34	34	34	25	22	22	22	8	34	....	....	16	...	....	....	...	....	..
Lynn Valley (5 Divisions)	27	15	14	38	41	36	....	171	171	171	171	171	171	115	77	77	77	36	171	....	....	.....	....	....	....	....	....	.

North Star (3 Divisions)	17	15	5	18	11	19	....	85	85	85	85	85	85	48	30	30	30	19	85	...	....	85	...	....	...	....	....	..
Vancouver, South :	55	32	23	66	77	72	....	325	325	325	325	325	325	215	149	149	149	72	325	....	....	119	...	...	....	....	....	..
Brock (7 Divisions)	39	12	46	25	71	56	....	249	249	249	249	249	249	152	127	127	127	56	249	68	59	....	....	....	...	....	....	..
Carleton (12 Divisions)	81	23	50	102	87	137	...	480	480	480	480	480	480	326	224	224	224	137	480	99	125	82	...	....	....	....	....	..
Champlain	7	4	5	....	8	...	....	24	24	24	24	24	24	8	8	8	8	....	24	....	....	.....	....	...	..	....	....	..
Connaught (2 Divisions)	26	18	10	....	...	..	.	54	54	54	54	54	54	.....	.....	.....	.....	...	54	....	....	54	....	....	....	....	....	..
Moberly (8 Divisions)	35	23	22	67	66	58	....	271	271	271	271	271	271	191	124	124	124	58	271	69	55	.....	....	....	...	....	...	..
Richard McBride (10 Div.)	66	41	41	68	126	60	....	402	402	402	402	402	402	254	186	186	186	60	402	85	101	.....	....	....	....	....	....	..
Sir Alexander Mackenzie (13)	92	7	101	79	141	104	....	524	524	524	524	524	524	324	245	245	245	104	524	94	113	159	...	....	...	....	....	..
Norquay (6 Divisions)	38	12	8	57	66	34	....	215	215	215	215	215	215	157	100	100	100	34	215	44	56	215	....	....	....	....	....	..
Laura Secord (3 Divisions)	28	16	26	19	11	15	..	115	115	115	115	115	115	45	26	26	26	15	115	14	12	115	....	....	....	....	....	..
Lord Selkirk (15 Divisions)	101	58	55	127	141	138	....	618	618	618	618	618	618	406	279	279	279	138	618	136	174	41	.. ..	....	.	...	....	..
Sexsmith (4 Divisions)	22	....	11	36	33	27	....	129	129	129	129	129	129	96	60	60	60	27	129	33	27	69	...	....	....	....	....	..
Tecumseh (13 Divisions)	133	40	52	42	122	94	....	483	483	483	483	483	483	258	216	216	216	94	483	102	96	82	...	....	....	....	....	..
Van Horne (7 Divisions)	38	26	25	34	87	41	....	251	251	251	251	251	251	162	128	128	128	41	251	61	67	.....	....	....	...	....	...	.
Wolfe (13 Divisions)	70	53	45	99	142	89	. ..	498	498	498	498	498	498	330	231	231	231	89	498	71	95	.....	....	....	....	....	....	..
Vancouver, West :	776	331	497	755	1101	853	....	4313	4313	4313	4313	4313	4313	2709	1954	1954	1954	853	4313	876	986	817	....	....	..	....	....	..
Caulfeild	5	1	2	4	6	4	....	22	22	22	22	22	22	14	10	10	10	4	22	....	. ..	.....	....	....	....	....	....	.
Dundarave	13	4	6	8	5	....	....	36	36	36	36	36	36	13	5	5	5	...	36	....	....	36	...	...	....	.	....	..
Hollyburn (3 Divisions)	18	6	11	14	21	35	....	105	105	105	105	105	105	70	56	56	56	35	105	....	....	70	....	....	...	....	....	.
	36	11	19	26	32	39	...	163	163	163	163	163	163	97	71	71	71	39	163	....	...	106	....	....	....	....	.	.
Grand total, 1916-1917	2743	1168	1582	2787	3864	3062	99	15305	15305	15305	15259	15206	15259	9713	6926	6926	7025	3161	15305	2199	2286	5631	99	99	60	97	55	55
" 1915-1916	2614	1427	1864	2537	3834	2983	91	15350	15350	15350	15326	15259	15326	9354	6817	6817	6908	3074	15350	1863	1670	5721	91	91	91	91	25	25

TABLE B.—Abstract of Studies, &c., pursued in the *Rural and Assisted Schools* for the year 1916-1917.

RURAL AND ASSISTED SCHOOLS.	First Primer.	Second Primer.	First Reader.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.	Writing.	Dictation and Spelling.	Composition.	Arithmetic.	Nature Lessons and Hygiene.	Drawing.	Geography.	Canadian History.	British History.	English Grammar.	English Literature.	Physical Exercises.	Manual Training.	Domestic Science (Needle-work, etc.).	Music.	Algebra.	Geometry.	Latin.	French.	Physical Science.	Botany.
Abbotsford (4 Divisions, Superior)	16	17	24	20	22	33	23	155	155	155	144	132	144	75	55	55	78	56	155	...	....	80	23	23	23	23	11	11
Ainsworth	7	....	3	4	11	7	....	32	32	32	32	32	32	22	18	18	18	7	32	...	....	.....	...	...	....	....	....	..
Albert Canyon	3	1	1	2	5	3	....	15	15	15	15	15	15	10	8	8	8	3	15	....	....	.....	....	....	....	....	....	..
Albert Head	3	...	1	9	7	11	....	31	31	31	31	31	31	27	18	18	18	11	31	...	....	31	....	....	....	....	....	..
Alert Bay	2	4	2	4	7	2	....	21	21	21	21	21	21	13	9	9	9	2	21	....	....	.....	....	...	....	....	....	..
Alexandria	1	3	1	3	1	2	....	11	11	11	11	11	11	6	3	3	3	2	11	....	...	11	....	....	....	....	....	..
Alice Arm	3	3	2	2	2	1	....	13	13	13	13	13	13	5	3	3	3	1	13	....	....	.....	....	....	....	....	....	..
Alice Siding	2	2	1	2	4	6	....	17	17	17	17	17	17	12	10	10	10	6	17	....	....	.....	....	....	....	....	....	..
Allen Grove	4	....	...	2	1	1	....	8	8	8	8	8	8	4	2	2	2	1	8	....	....	8	....	....	....	....	....	..
Anaconda	3	1	4	3	5	2	....	18	18	18	18	18	18	10	7	7	7	2	18	...	....	.....	....	....	....	....	....	..
Anarchist Mountain	4	3	4	4	6	3	....	24	24	24	24	24	24	13	9	9	9	3	24	....	....	24	....	....	....	....	....	..
Annable	3	3	2	4	9	4	....	25	25	25	25	25	25	17	13	13	13	4	25	....	....	25	....	....	...	....	....	..
Appledale	4	1	3	3	3	5	1	20	20	20	19	19	19	11	8	8	9	6	20	....	....	.....	1	1	1	1	1	1
Arrowhead	3	....	1	4	4	7	....	19	19	19	19	19	19	15	11	11	11	7	19	....	....	.....	....	....	....	....	....	..
Arrow Park, East	3	1	5	5	4	9	....	27	27	27	27	27	27	18	13	13	13	9	27	....	....	27	....	....	....	....	...	..
Arrow Park, West	5	...	1	...	3	3	1	13	13	13	13	12	13	6	6	6	7	4	13	....	....	13	1	1	1	1	....	..
Ashcroft (3 Divisions, Superior)	15	8	5	10	18	9	8	73	73	73	73	65	73	37	27	27	35	17	73	....	....	.....	8	8	8	8	....	..
Ashton Creek	2	....	4	2	4	1	....	13	13	13	13	13	13	7	5	5	5	1	13	....	....	13	...	....	...	....	....	.
Aspen Grove	3	....	3	3	3	2	....	14	14	14	14	14	14	8	5	5	5	2	14	..	....	.....	....	...	....	....	....	..
Athalmer	2	1	4	5	3	9	....	24	24	24	24	24	24	17	12	12	12	9	24	....	....	.....	....	....	....	....	....	..
Atlin	3	1	....	....	2	3	....	9	9	9	9	9	9	5	5	5	5	3	9	...	...	.....	....	....	....	....	....	..
Balfour	2	....	2	....	9	5	....	18	18	18	18	18	18	14	14	14	14	5	18	....	....	.....	....	....	....	....	....	..

Balmoral	3	1	5	4	4	8	....	25	25	25	25	25	25	16	12	12	12	8	25	....	....	....	....	....	....	....	....	....	....	....
Bamfield	1	....	3	....	1	4	....	9	9	9	9	9	9	5	5	5	5	4	9	....	....	....	....	....	....	....	....	....	....	....
Barkerville	....	....	5	....	7	.	....	12	12	12	12	12	12	7	7	7	7	....	12	....	....	12	....	....	....	....	....	....	....	....
Barnston Island	1	....	1	2	3	4	....	11	11	11	11	11	11	9	7	7	7	4	11	....	....	....	....	....	....	....	....	....	....	....
Barriere Power-house	3	3	....	1	....	2	....	9	9	9	9	9	9	3	2	2	2	2	9	....	....	....	....	....	....	....	....	....	....	....
Barriere River	2	1	1	2	7	4	....	17	17	17	17	17	17	13	11	11	11	4	17	....	....	17	....	....	....	....	....	....	....	....
Barriere Valley	2	4	....	2	4	1	....	13	13	13	13	13	13	7	5	5	5	1	13	....	....	....	....	....	....	....	....	....	....	....
Baynes Lake	8	7	4	5	7	13	....	44	44	44	44	44	44	25	20	20	20	13	44	....	....	....	....	....	....	....	....	....	....	....
Bear Creek	2	....	1	1	2	2	2	10	10	10	10	8	10	5	4	4	6	4	10	....	....	....	2	2	2	2	....	....	....	....
Beaton	4	2	....	3	3	3	....	15	15	15	15	15	15	9	6	6	6	3	15	....	....	....	....	....	....	....	....	....	....	....
Beaver Creek	1	3	....	4	5	3	....	16	16	16	16	16	16	12	8	8	8	3	16	....	....	16	....	....	....	....	....	....	....	....
Beaver Lake	4	....	2	1	2	1	....	10	10	10	10	10	10	4	3	3	3	1	10	....	....	....	....	....	....	....	....	....	....	....
Beaver Point	6	1	....	3	....	8	....	18	18	18	18	18	18	11	8	8	8	8	18	....	....	....	....	....	....	....	....	....	....	....
Begbie	5	2	5	4	5	1	....	22	22	22	22	22	22	10	6	6	6	1	22	....	....	....	....	....	....	....	....	....	....	....
Belford	4	....	1	....	6	6	....	17	17	17	17	17	17	12	12	12	12	6	17	....	....	....	....	....	....	....	....	....	....	....
Bella Coola	5	4	3	3	6	2	....	23	23	23	23	23	23	11	8	8	8	2	23	....	....	23	....	....	....	....	....	....	....	....
Bella Coola, Lower	2	....	1	....	3	6	....	12	12	12	12	12	12	9	9	9	9	6	12	....	....	....	....	....	....	....	....	....	....	....
Bench	....	1	4	5	7	4	....	21	21	21	21	21	21	16	11	11	11	4	21	....	....	....	....	....	....	....	....	....	....	....
Beresford	11	....	9	3	6	7	....	36	36	36	36	36	36	16	13	13	13	7	36	....	....	36	....	....	....	....	....	....	....	....
Berrydale	3	....	....	2	....	4	....	9	9	9	9	9	9	6	4	4	4	4	9	....	....	....	....	....	....	....	....	....	....	....
Big Bar	....	1	2	3	2	2	....	10	10	10	10	10	10	7	4	4	4	2	10	....	....	....	....	....	....	....	....	....	....	....
Big Bar Mountain	2	2	2	2	2	....	....	10	10	10	10	10	10	4	2	2	2	....	10	....	....	10	....	....	....	....	....	....	....	....
Big Bar, Upper	4	....	1	2	....	3	....	10	10	10	10	10	10	5	3	3	3	3	10	....	....	....	....	....	....	....	....	....	....	....
Big Eddy	6	....	....	11	6	7	....	30	30	30	30	30	30	24	13	13	13	7	30	....	....	....	....	....	....	....	....	....	....	....
Blaeberry	1	....	4	3	2	....	....	10	10	10	10	10	10	5	2	2	2	....	10	....	....	....	....	....	....	....	....	....	....	....
Blind Bay	2	1	1	1	5	1	....	11	11	11	11	11	11	7	6	6	6	1	11	....	....	....	....	....	....	....	....	....	....	....
Blueberry Creek	3	....	1	3	2	....	....	9	9	9	9	9	9	5	2	2	2	....	9	....	....	....	....	....	....	....	....	....	....	....
Bonaparte Valley	4	....	....	2	3	3	....	12	12	12	12	12	12	8	6	6	6	3	12	....	....	12	....	....	....	....	....	....	....	....
Boston Bar	11	....	2	....	....	....	....	13	13	13	13	13	13	.....	.....	.....	.....	....	13	....	....	....	....	....	....	....	....	....	....	....
Boswell	6	....	1	1	3	1	....	12	12	12	12	12	12	5	4	4	4	1	12	....	....	12	....	....	....	....	....	....	....	....
Boundary Falls	6	1	1	1	2	1	....	12	12	12	12	12	12	4	3	3	3	1	12	..	....	....	....	....	....	....	....	....	....	....
Bowen Island	4	6	2	5	3	4	....	24	24	24	24	24	24	12	7	7	7	4	24	....	....	....	....	....	....	....	....	....	....	....

TABLE B.—Abstract of Studies, &c., pursued in the *Rural and Assisted Schools* for the year 1916-1917.—*Continued.*

RURAL AND ASSISTED SCHOOLS.	First Primer.	Second Primer.	First Reader.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.	Writing.	Dictation and Spelling.	Composition.	Arithmetic.	Nature Lessons & Hygiene.	Drawing.	Geography.	Canadian History.	British History.	English Grammar.	English Literature.	Physical Exercises.	Manual Training.	Domestic Science (Needle-work, etc.).	Music.	Algebra.	Geometry.	Latin.	French.	Physical Science.	Botany.
Bowie	10	2	1	1	....	...	...	14	14	14	14	14	14	1	.....	.....	.....	...	14	....	....	.....	....	....	....	....	...	..
Bowser	2	3	2	1	2	2	....	12	12	12	12	12	12	5	4	4	4	2	12	....	....	.....	...	....	....	....	...	..
Box Lake	10	1	4	4	5	2	....	26	26	26	26	26	26	11	7	7	7	2	26	....	....	26	....	....	....	....	...	..
Brechin (3 Divisions)	18	1	15	18	32	20	....	104	104	104	104	104	104	70	52	52	52	20	104	....	....	.....	....	....	....	....	...	..
Bridesville	4	4	....	3	4	...	....	15	15	15	15	15	15	7	4	4	4	....	15	....	....	15	....	....	....	....	...	..
Brilliant (2 Divisions)	16	9	10	21	....	...	....	56	56	56	56	56	56	21	.....	.....	.....	....	56	....	....	.....	....	....	....	....	...	..
Brisco	1	....	4	2	2	8	....	17	17	17	17	17	17	12	10	10	10	8	17	....	....	.....	....	....	....	....	...	..
Britannia Beach (2 Divisions)	5	10	8	1	17	16	.	57	57	57	57	57	57	34	33	33	33	16	57	....	....	57	....	....	....	....	...	..
Britannia Mine	11	7	5	15	11	2	....	51	51	51	51	51	51	28	13	13	13	2	51	....	....	.....	....	....	....	....	...	..
Bull River Bridge	11	1	10	11	8	2	....	43	43	43	43	43	43	21	10	10	10	2	43	....	....	43	....	....	....	....	...	..
Burgoyne Bay	4	2	5	7	2	9	....	29	29	29	29	29	29	18	11	11	11	9	29	....	....	29	....	....	....	....	...	..
Burtondale	1	3	2	5	7	4	....	22	22	22	22	22	22	16	11	11	11	4	22	....	....	.....	....	....	....	....	...	..
Cache Creek	4	3	2	4	....	2	....	15	15	15	15	15	15	6	2	2	2	2	15	....	...	15	....	....	....	....	...	..
Campbell Creek	2	2	3	1	2	7	..	17	17	17	17	17	17	10	9	9	9	7	17	....	....	17	....	....	....	....	...	..
Campbell Range	3	3	1	2	5	3	....	17	17	17	17	17	17	10	8	8	8	3	17	.....	...	.....	....	....	....	....	...	..
Campbell River	7	1	6	....	2	2	....	18	18	18	18	18	18	4	4	4	4	2	18	...	....	18	....	....	....	....	...	..
Canford	5	5	5	4	3	1	....	23	23	23	23	23	23	8	4	4	4	1	23	...	....	.....	....	....	....	....	...	..
Canim Lake	3	....	2	1	1	1	....	8	8	8	8	8	8	3	2	2	2	1	8	....	....	.....	....	....	....	....	...	..
Canyon City	9	3	4	11	14	8	....	49	49	49	49	49	49	33	22	22	22	8	49	....	....	.....	....	....	....	....	...	..
Cape Scott	6	7	3	....	2	4	....	22	22	22	22	22	22	6	6	6	6	4	22	...	....	.....	....	....	....	....	...	..
Cariboo	2	3	....	1	1	3	....	10	10	10	10	10	10	5	4	4	4	3	10	...	...	10	....	....	....	....	...	..
Carlin Siding	6	1	2	3	3	8	....	23	23	23	23	23	23	14	11	11	11	8	23	....	...	23	....	...	....	...	...	..

Carson	4	12	....	...	2	3	....	21	21	21	21	21	21	5	5	5	5	3	21	...	....	.....	....	...	....	....	....	..
Cartier	8	4	10	4	5	2	..	33	33	33	33	33	33	11	7	7	7	2	33	....	....	.....	....	....	....	....	....	..
Cascade	4	....	6	5	5	8	....	28	28	28	28	28	28	18	13	13	13	8	28	....	....	.....	...	....	....	....	....	..
Castledale	3	....	4	6	3	3	....	19	19	19	19	19	19	12	6	6	6	3	19	....	...	.....	....	...	....	.	....	..
Castlegar	6	...	11	3	4	10	....	34	34	34	34	34	34	17	14	14	14	10	34	....	...	.....	....	....	....	....	....	..
Cedar, East	1	3	3	....	2	3	....	12	12	12	12	12	12	5	5	5	5	3	12	....	....	12	....	....	....	....	....	..
Cedar, North (2 Divisions)	14	7	7	8	18	4	...	58	58	58	58	58	58	30	22	22	22	4	58	....	....	22	....	....	....	....	....	..
Cedar, South	2	5	7	4	7	8	....	33	33	33	33	33	33	19	15	15	15	8	33	....	....	....	....	....	....	....	....	..
Chase (3 Divisions)	19	7	12	18	13	21	....	90	90	90	90	90	90	52	34	34	34	21	90	....	....	31	...	....	....	....	....	..
Chase Creek	2	1	2	5	2	1	....	13	13	13	13	13	13	8	3	3	3	1	13	....	....	.....	....	....	....	...	....	..
Chase Creek, Lower	2	5	....	....	2	...	....	9	9	9	9	9	9	2	2	2	2	....	9	....	....	.....	....	....	....	....	....	..
Chase River (2 Divisions)	19	....	5	4	23	17	....	68	68	68	68	68	68	44	40	40	40	17	68	....	....	68	....	....	....	....	....	.
Chaumox	3	1	....	4	3	2	....	13	13	13	13	13	13	9	5	5	5	2	13	....	....	.....	....	....	....	....	....	.
Cherry Creek	4	....	....	2	5	2	....	13	13	13	13	13	13	9	7	7	7	2	13	...	....	.....	....	...	..	....	....	..
Chief Lake	3	1	1	4	2	2	....	13	13	13	13	13	13	8	4	4	4	2	13	....	...	.....	....	....	....	....	....	..
Chilco	4	1	5	2	4	3	....	19	19	19	19	19	19	9	7	7	7	3	19	....	....	19	....	....	....	....	....	..
Chimney Creek	3	....	....	....	4	5	....	12	12	12	12	12	12	9	9	9	9	5	12	...	....	12	....	....	....	....	....	..
Christina Lake	2	...	4	2	1	3	....	12	12	12	12	12	12	6	4	4	4	3	12	....	...	.....	....	....	....	....	....	..
Chu Chua	1	2	3	4	4	3	....	17	17	17	17	17	17	11	7	7	7	3	17	....	..	.....	....	....	....	....	....	..
Clayoquot	...	....	4	1	6	5	....	16	16	16	16	16	16	12	11	11	11	5	16	....	....	16	....	....	....	....	....	..
Clearwater	...	2	2	4	2	2	...	12	12	12	12	12	12	8	4	4	4	2	12	...	....	.....	....	....	....	....	....	..
Clinton	6	3	....	18	8	13	...	48	48	48	48	48	48	39	21	21	21	13	48	....	....	.....	....	....	....	....	....	..
Clo-oose	....	....	2	....	2	3	....	7	7	7	7	7	7	5	5	5	5	3	7	....	....	.....	....	....	....	....	....	..
Coal Creek (3 Divisions)	17	12	12	17	28	15	...	101	101	101	101	101	101	60	43	43	43	15	101	....	....	43	....	....	....	....	....	..
Coalmont	....	1	....	2	1	1	...	5	5	5	5	5	5	4	2	2	2	1	5	....	....	.....	....	....	....	....	....	..
Cobble Hill	4	4	1	2	4	8	....	23	23	23	23	23	23	14	12	12	12	8	23	....	....	23	....	....	....	....	....	..
Cokato	11	3	4	2	4	1	....	25	25	25	25	25	25	7	5	5	5	1	25	..	....	25	....	....	....	....	....	..
Coltern	5	2	2	3	1	1	...	14	14	14	14	14	14	5	2	2	2	1	14	....	....	14	....	....	....	....	....	..
Columbia Gardens	7	2	....	6	5	....	....	20	20	20	20	20	20	11	5	5	5	....	20	....	....	20	....	....	....	....	....	..
Columbia Park	....	....	....	....	....	2	...	2	2	2	2	2	2	2	2	2	2	2	2	...	...	.....	....	....	....	....	....	..
Colwood	7	....	7	5	3	10	....	32	32	32	32	32	32	18	13	13	13	10	32	....	....	.....	....	..	....	....	....	..
Comox (2 Divisions)	7	7	5	....	16	10	...	45	45	45	45	45	45	26	26	26	26	10	45	....	...	45	....	....	....	....	....	..

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Concord	3	....	....	1	3	2	....	9	9	9	9	9	9	6	5	5	5	2	9	....	....	.....	....	....	....	....	....	..
Copper City	1	1	...	....	2	4	....	8	8	8	8	8	8	6	6	6	6	4	8	....	....	.....	....	....	....	...	....	..
Copper Creek	1	1	1	2	2	....	....	7	7	7	7	7	7	4	2	2	2	....	7	....	....	7	....	....	....	...	...	.
Copper Mountain	2	1	1	5	7	4	....	20	20	20	20	20	20	16	11	11	11	4	20	....	....	20	....	....	....	....	....	..
Corbin	8	4	3	6	4	2	....	27	27	27	27	27	27	12	6	6	6	2	27	....	....	.....	....	....	....	....	....	..
Cortes Island	3	1	2	....	....	5	....	11	11	11	11	11	11	5	5	5	5	5	11	....	....	.....	....	....	....	....	...	..
Cowichan (2 Divisions)	10	7	6	7	9	18	....	57	57	57	57	57	57	34	27	27	27	18	57	....	....	57	...	....	....	....	...	..
Cowichan Lake	2	1	2	3	7	3	....	18	18	18	18	18	18	13	10	10	10	3	18	....	...	18	....	....	....	....	....	..
Craigellachie	3	3	3	3	....	....	....	12	12	12	12	12	12	3	.....	.....	.....	....	12	....	....	.....	....	....	....	....	....	..
Cranberry Marsh	3	2	....	2	7	4	....	18	18	18	18	18	18	13	11	11	11	4	18	....	....	18	....	....	....	....	....	..
Crawford Bay	7	4	3	8	8	8	....	38	38	38	38	38	38	24	16	16	16	8	38	....	...	.....	....	..	....	....	....	..
Crawford Creek	3	3	....	....	2	....	....	8	8	8	8	8	8	2	2	2	2	....	8	....	....	8	....	....	....	....	....	..
Crescent Valley	4	1	2	6	10	4	....	27	27	27	27	27	27	20	14	14	14	4	27	....	....	.....	....	....	....	....	....	..
Creston (4 Divisions, Superior)	24	12	25	15	31	28	15	150	150	150	141	135	141	74	59	59	74	43	150	....	....	42	15	15	15	15	9	9
Criss Creek	....	....	....	3	1	4	....	8	8	8	8	8	8	8	5	5	5	4	8	....	....	.....	....	....	....	....	....	..
Crowsnest	2	3	2	....	2	1	....	10	10	10	10	10	10	3	3	3	3	1	10	....	....	....	....	...	....	....	....	..
Cultus Lake	..	3	2	3	1	3	....	12	12	12	12	12	12	7	4	4	4	3	12	....	....	.....	..	...	....	....	....	..
Curzon	...	2	1	4	4	2	....	13	13	13	13	13	13	10	6	6	6	2	13	...	....	.....	....	....	....	....	....	..
Darcy Mountain	....	1	....	1	4	1	....	7	7	7	7	7	7	6	5	5	5	1	7	. ..	....	.....	....	....	....	....	....	..
Deadwood	4	....	...	9	8	9	....	30	30	30	30	30	30	26	17	17	17	9	30	....	..	.....	....	....	....	....	....	..
Deep Cove	4	3	3	7	11	4	....	32	32	32	32	32	32	22	15	15	15	4	32	....	....	32	....	....	....	....	....	..
Deep Creek	....	1	....	2	5	3	....	11	11	11	11	11	11	10	8	8	8	3	11	....	....	....	....	....	....	....	....	..

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TABLE B.—Abstract of Studies, &c., pursued in the *Rural and Assisted Schools* for the year 1916-1917.—*Continued.*

RURAL AND ASSISTED SCHOOLS.	First Primer.	Second Primer.	First Reader.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.	Writing.	Dictation and Spelling.	Composition.	Arithmetic.	Nature Lessons & Hygiene.	Drawing.	Geography.	Canadian History.	British History.	English Grammar.	English Literature.	Physical Exercises.	Manual Training.	Domestic Science (Needlework, etc.).	Music.	Algebra.	Geometry.	Latin.	French.	Physical Science.	Botany.
Fife	12	2	....	....	6	5	....	25	25	25	25	25	25	11	11	11	11	5	25	....	....	25	....	....	....	....	....	..
Fire Valley	3	4	....	4	3	4	....	18	18	18	18	18	18	11	7	7	7	4	18	....	....	18	....	....	....	..	....	..
Fish Lake	10	....	4	2	5	3	....	24	24	24	24	24	24	10	8	8	8	3	24	....	....	.....	....	....	....	....	....	..
Flagstone	7	....	5	3	7	10	....	32	32	32	32	32	32	20	17	17	17	10	32	....	....	32	....	....	..	....	....	..
Fort Fraser	7	3	1	3	3	....	....	17	17	17	17	17	17	6	3	3	3	....	17	....	....	.....	....	....	....	....	....	..
Fort George (2 Divisions)	17	3	13	3	11	16	....	63	63	63	63	63	63	30	27	27	27	16	63	....	....	63	....	....	....	....	....	..
Fort George, South	7	2	1	3	6	4	....	23	23	23	23	23	23	13	10	10	10	4	23	....	....	.....	....	....	....	....	....	..
Fort Steele (2 Divisions)	7	4	3	10	11	11	....	46	46	46	46	46	46	32	22	22	22	11	46	....	....	22	....	....	....	....	....	..
Foster's Bar	3	2	....	3	4	1	....	13	13	13	13	13	13	8	5	5	5	1	13	....	....	13	....	....	....	....	....	..
French Creek	4	....	....	3	4	5	....	16	16	16	16	16	16	12	9	9	9	5	16	....	....	.....	....	....	....	....	....	..
Fruitlands (2 Divisions)	18	5	7	16	16	13	....	75	75	75	75	75	75	45	29	29	29	13	75	....	....	39	....	....	....	....	....	..
Fruitvale	7	9	5	8	6	7	....	42	42	42	42	42	42	21	13	13	13	7	42	....	....	....	....	....	....	....	....	..
Gabriola, North	...	....	2	2	9	1	...	14	14	14	14	14	14	12	10	10	10	1	14	....	....	.....	....	....	....	....	....	..
Gabriola, South	....	4	2	2	2	9	...	19	19	19	19	19	19	13	11	11	11	9	19	....	....	19	....	....	....	....	....	..
Galena Bay	3	1	2	....	3	4	....	13	13	13	13	13	13	7	7	7	7	4	13	....	....	.....	....	....	....	. ..	....	..
Galiano	2	2	....	4	4	2	....	14	14	14	14	14	14	10	6	6	6	2	14	....	....	.....	....	....	....	. ..	. ..	..
Galiano, North	4	4	1	4	2	4	....	19	19	19	19	19	19	10	6	6	6	4	19	....	...	19	....	....	....	....	....	..
Galloway	1	2	3	1	2	6	....	15	15	15	15	15	15	9	8	8	8	6	15	....	....	.....	....	....	....	....	...	..
Gambier Island	1	....	....	2	3	1	....	7	7	7	7	7	7	6	4	4	4	1	7	....	...	.....	....	....	....	....	...	..
Ganges	3	2	....	....	4	1	....	10	10	10	10	10	10	5	5	5	5	1	10	....	....	10	....	....	....	....	....	..
Gerrard	3	2	1	....	3	2	.. .	11	11	11	11	11	11	5	5	5	5	2	11	....	....	11	....	.	...	....	....	..
Gill	9	3	1	2	10	6	....	31	31	31	31	31	31	18	16	16	16	6	31	....	...	31	....	...	....	....	....	..

Gillis Bay	2	2	4	1	1	3	...	13	13	13	13	13	13	5	4	4	4	3	13	...	..	.....	....	....	....	....	....	..		
Gilpin	2	1	3	1	1	1	....	9	9	9	9	9	9	3	2	2	2	1	9	....	..	.....	...	..	...	..	....	..		
Giscome	7	1	1	3	7	2	....	21	21	21	21	21	21	12	9	9	9	2	21	....	....	21	....	....	....	....	....	..		
Glade	8	5	7	....	...	....	....	20	20	20	20	20	20	.....	.....	.....	.....	...	20	....	....	.....	..	....	...	...	....	..		
Glenbank	8	2	9	5	9	8	....	41	41	41	41	41	41	22	17	17	17	8	41	....	....	....	...	....	...	....	....	..		
Glencoe	3	6	....	....	1	1	....	11	11	11	11	11	11	2	2	2	2	1	11	....	....	.....	....	....	....	....	....	..		
Glenemma	4	....	3	1	4	5	....	17	17	17	17	17	17	10	9	9	9	5	17	....	....	.....	....	....	....	....	....	..		
Glenora	1	....	3	....	5	6	....	15	15	15	15	15	15	11	11	11	11	6	15	....	....	15	....	....	....	....	....	..		
Glenrosa	3	....	1	2	2	2	....	10	10	10	10	10	10	6	4	4	4	2	10	....	....	.....	....	...	..	....	...	..		
Golden (4 Divisions)	21	14	13	18	36	33	....	135	135	135	135	135	135	87	69	69	69	33	135	....	...	.....	....	....	....	...	....	..		
Goldstream	2	....	3	1	3	2	....	11	11	11	11	11	11	6	5	5	5	2	11	....	....	11	....	....	....	....	....	.		
Granby Bay (2 Divisions)	19	10	12	10	26	16	....	93	93	93	93	93	93	52	42	42	42	16	93	....	....	42	....	...	....	....	...	..		
Granby Bay Mine	11	6	....	11	....	1	....	29	29	29	29	29	29	12	1	1	1	1	29	...	....	29	....	....	....	....	....	..		
Grande Prairie	6	4	....	8	3	4	....	25	25	25	25	25	25	15	7	7	7	4	25	....	....	25	....	....	....	....	....	..		
Granite Bay	1	....	1	2	4	2	....	10	10	10	10	10	10	8	6	6	6	2	10	....	....	.....	....	....	...	....	....	..		
Grantham	16	1	2	6	9	6	....	40	40	40	40	40	40	21	15	15	15	6	40	....	....	40	...	...	....	....	....	..		
Grindrod	3	2	1	....	6	8	....	20	20	20	20	20	20	14	14	14	14	8	20	....	....	.....	....	....	....	....	....	..		
Half Moon Bay	1	....	1	2	1	....	....	5	5	5	5	5	5	3	1	1	1	....	5	....	....	.....	....	....	....	....	....	..		
Hall's Landing	7	1	2	4	6	2	....	22	22	22	22	22	22	12	8	8	8	2	22	....	....	22	....	....	....	....	....	..		
Happy Valley	2	5	5	8	9	6	....	35	35	35	35	35	35	23	15	15	15	6	35	....	....	.....	....	....	....	....	....	..		
Hardy Island	1	....	2	1	3	1	....	8	8	8	8	8	8	5	4	4	4	1	8	....	....	. ....	....	....	....	....	....	..		
Harewood (8 Divisions)	70	34	31	52	73	36	....	296	296	296	296	296	296	161	109	109	109	36	296	....	....	. . .	...	....	....	....	....	..		
Harper's Camp	....	1	....	3	2	3	....	9	9	9	9	9	9	8	5	5	5	3	9	....	....	.....	....	....	....	....	....	..		
Harrogate	1	...	2	5	....	2	..	10	10	10	10	10	10	7	2	2	2	2	10	. .	....	10	....	....	...	....	....	..		
Harrop	1	4	..	5	8	4	....	22	22	22	22	22	22	17	12	12	12	4	22	....	....	. ...	....	....	....	....	....	.		
Hat Creek	....	1	2	1	4	1	....	9	9	9	9	9	9	6	5	5	5	1	9	....	...	.....	...	....	....	...	....	..		
Hatzic Prairie	3	1	....	6	....	3	..	13	13	13	13	13	13	9	3	3	3	3	13	....	....	13	....	....	....	....	....	..		
Haysport	2	5	2	3	2	1	...	15	15	15	15	15	15	6	3	3	3	1	15	....	....	15	....	....	...	....	....	..		
Hazelton	2	....	2	6	....	8	....	18	18	18	18	18	18	14	8	8	8	8	18	....	....	18	....	....	....	....	....			
Hazelton, New	6	....	4	....	8	4	....	22	22	22	22	22	22	12	12	12	12	4	22	....	....	.. ...	....	....	....	....	....	.		
Headquarters	4	2	3	2	3	5	....	19	19	19	19	19	19	10	8	8	8	5	19	....	....	.... .	....	....	....	....	....	..		
Hedley (3 Divisions, Superior)	14	3	10	5	17	12	4	65	65	65	64	61	64	34	29	29	33	16	65	....	....	27	4	4	4	4	1	1		

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Heffley Creek	3	1	2	3	6	4	....	19	19	19	19	19	19	13	10	10	10	4	19	...	....	19	....	....	....	....	....	..
Heffley Lake	3	....	1	5	....	....	....	9	9	9	9	9	9	5	.....	.....	....	....	9	....	....	.....	...	....	....	....	....	..
Heriot Bay	7	1	2	2	5	2	....	19	19	19	19	19	19	9	7	7	7	2	19	....	...	19	....	..	..	....	....	..
Heydon Bay	3	1	1	1	3	2	....	11	11	11	11	11	11	6	5	5	5	2	11	....	....	.....	....	....	....	....	....	..
Highland	1	....	1	1	2	5	....	10	10	10	10	10	10	8	7	7	7	5	10	....	....	.....	...	....	....	....	....	..
Hilborn	4	...	....	3	2	1	....	10	10	10	10	10	10	6	3	3	3	1	10	....	....	.....	....	....	....	....	....	..
Hillier	5	....	2	1	2	1	....	11	11	11	11	11	11	4	3	3	3	1	11	....	....	.....	....	....	....	....	....	..
Hilltop	3	....	2	3	1	2	...	11	11	11	11	11	11	6	3	3	3	2	11	....	....	.....	....	...	....	....	....	..
Hilton	6	1	....	2	3	1	....	13	13	13	13	13	13	6	4	4	4	1	13	....	....	.....	....	....	....	....	....	..
Hope (2 Divisions)	11	4	1	9	15	10	...	50	50	50	50	50	50	34	25	25	25	10	50	....	....	25	....	....	....	....	....	..
Hope Station	2	2	....	2	2	4	....	12	12	12	12	12	12	8	6	6	6	4	12	....	....	12	....	....	....	....	....	.
Hornby Island	4	1	3	1	5	4	....	18	18	18	18	18	18	10	9	9	9	4	18	....	....	.....	....	....	....	....	....	..
Horse Creek	4	....	3	2	6	4	...	19	19	19	19	19	19	12	10	10	10	4	19	....	....	.....	....	....	....	....	....	..
Hosmer	5	6	7	3	6	2	....	29	29	29	29	29	29	11	8	8	8	2	29	....	....	.....	....	....	....	....	....	..
Houston	....	2	2	....	6	....	....	10	10	10	10	10	10	6	6	6	6	....	10	....	....	.....	....	....	....	....	....	..
Howe Sound (2 Divisions)	11	4	11	4	12	22	4	68	68	68	68	64	68	38	34	34	38	26	68	....	....	68	4	4	4	4	....	.
Hume (5 Divisions)	26	20	12	31	53	37	....	179	179	179	179	179	179	121	90	90	90	37	179	...	....	46	....	....	....	....	....	..
Hupel	2	....	4	....	1	3	....	10	10	10	10	10	10	4	4	4	4	3	10	....	....	.....	....	....	....	....	....	..
Hurlingham	3	2	4	1	2	1	....	13	13	13	13	13	13	4	3	3	3	1	13	....	....	13	....	....	....	....	...	..
Huscroft	1	1	....	2	3	3	....	10	10	10	10	10	10	8	6	6	6	3	10	....	....	10	....	....	....	....	....	..
Invermere	...	3	2	4	3	10	....	22	22	22	22	22	22	17	13	13	13	10	22	....	....	.....	....	....	....	....	....	..
Inverness	2	4	2	1	2	2	....	13	13	13	13	13	13	5	4	4	4	2	13	....	....	.....	....	....	....	....	....	..

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Little Fort	6	1	....	2	2	6	....	17	17	17	17	17	17	10	8	8	8	6	17	....	....	.....	....	....	....	....	....	..
Loco	2	....	2	2	3	....	....	9	9	9	9	9	9	5	3	3	3	....	9	....	....	.....	....	....	....	....	....	..
Long Lake	5	1	2	3	8	7	....	26	26	26	26	26	26	18	15	15	15	7	26	....	....	.....	....	....	....	....	....	..
Louis Creek	5	....	3	3	2	4	...	17	17	17	17	17	17	9	6	6	6	4	17	...	....	17	....	....	....	....	....	..
Lucerne	6	1	8	6	1	5	....	27	27	27	27	27	27	12	6	6	6	5	27	....	....	.....	....	....	....	....	....	..
Lumby (2 Divisions)	6	4	....	10	12	10	....	42	42	42	42	42	42	32	22	22	22	10	42	....	....	42	....	....	....	....	..	..
Lund	3	8	3	3	6	7	....	30	30	30	30	30	30	16	13	13	13	7	30	....	....	.....	....	....	....	...	....	..
Lytton	4	2	1	7	5	9	....	28	28	28	28	28	28	21	14	14	14	9	28	....	....	.....	....	....	....	....	....	..
Mabel Lake	4	....	....	4	3	3	....	14	14	14	14	14	14	10	6	6	6	3	14	...	....	.....	....	....	....	....	....	..
Malahat	4	3	5	8	15	8	....	43	43	43	43	43	43	31	23	23	23	8	43	....	....	.....	....	....	....	....	....	..
Malakwa	3	3	5	3	3	5	...	22	22	22	22	22	22	11	8	8	8	5	22	....	....	.....	....	....	....	....	....	..
Malcolm Island (2 Divisions)	7	3	6	8	16	9	1	50	50	50	50	49	50	33	25	25	26	10	50	...	....	24	1	1	1	1	....	..
Mapes	3	....	1	2	4	5	....	15	15	15	15	15	15	11	9	9	9	5	15	....	....	.....	....	....	....	....	....	..
Mara (2 Divisions)	10	4	2	6	16	2	....	40	40	40	40	40	40	24	18	18	18	2	40	....	....	40	....	....	....	...	....	..
Marshall	....	....	1	1	4	4	....	10	10	10	10	10	10	9	8	8	8	4	10	....	....	10	....	....	....	....	....	..
Martin's Prairie	10	4	5	4	4	3	....	30	30	30	30	30	30	11	7	7	7	3	30	...	....	30	....	....	....	....	....	..
Marysville	3	....	3	7	6	12	....	31	31	31	31	31	31	25	18	18	18	12	31	....	....	.....	....	....	....	....	....	..
Masset	1	....	3	3	2	4	....	13	13	13	13	13	13	9	6	6	6	4	13	....	....	13	....	....	....	....	....	..
Mayne Island	3	....	6	5	9	8	....	31	31	31	31	31	31	22	17	17	17	8	31	....	....	.....	....	....	....	....	....	..
Meadowbrook	4	....	6	..	2	....	....	12	12	12	12	12	12	2	2	2	2	....	12	....	....	12	...	....	....	....	....	..
Meadow Spur	....	1	2	2	2	5	....	12	12	12	12	12	12	9	7	7	7	5	12	....	....	.....	....	....	....	....	....	..
Meadow Valley	1	4	....	....	2	....	....	7	7	7	7	7	7	2	2	2	2	....	7	....	....	7	....	....	....	....	....	..

Meldrum Creek	5	4	6	2	3	....	....	20	20	20	20	20	20	5	3	3	3	....	20	....	....	.....	....	...	....	....	....	..
Metchosin	6	3	4	4	10	9	...	36	36	36	36	36	36	23	19	19	19	9	36	....	....	.....	....	....	....	....	....	..
Metlakatla	4	3	5	3	8	3	....	26	26	26	26	26	26	14	11	11	11	3	26	....	....	26	....	....	....	....	....	..
Michel (3 Divisions)	17	16	8	14	15	6	....	76	76	76	76	76	76	35	21	21	21	6	76	....	....	43	....	....	...	...	....	..
Michel, New (4 Divisions)	73	24	29	17	15	24	....	182	182	182	182	182	182	56	39	39	39	24	182	....	....	93	....	....	....	....	....	..
Midway	5	2	5	4	10	6	....	32	32	32	32	32	32	20	16	16	16	6	32	....	....	.....	....	....	....	....	....	..
Mill Brook Cove	2	1	....	....	4	....	....	7	7	7	7	7	7	4	4	4	4	....	7	....	....	7	....	....	....	...	....	..
Mill Creek	9	3	8	6	7	7	....	40	40	40	40	40	40	20	14	14	14	7	40	....	....	40	....	....	....	....	....	..
Minto (2 Divisions)	9	6	6	8	10	6	....	45	45	45	45	45	45	24	16	16	16	6	45	....	....	.....	..	....	....	....	....	..
Mirror Lake	1	1	....	....	1	1	....	4	4	4	4	4	4	2	2	2	2	1	4	....	....	.....	....	...	....	....	....	..
Mission Creek	3	3	5	6	6	8	....	31	31	31	31	31	31	20	14	14	14	8	31	....	....	.....	....	....	....	....	....	..
Moberly	1	....	....	3	4	3	....	11	11	11	11	11	11	10	7	7	7	3	11	....	....	.....	....	..	...	....	....	..
Model Farms	....	....	1	3	2	1	....	7	7	7	7	7	7	6	3	3	3	1	7	....	..	.....	....	....	....	....	....	..
Monte Creek	1	....	2	1	2	5	....	11	11	11	11	11	11	8	7	7	7	5	11	....	....	.....	..	....	....	....	....	..
Montrose	....	2	...	2	....	7	....	11	11	11	11	11	11	9	7	7	7	7	11	....	....	.....	....	..	....	....	....	..
Morrissey	1	2	3	2	3	2	....	13	13	13	13	13	13	7	5	5	5	2	13	....	....	.....	....	....	....	....	....	..
Morrissey Mines	7	5	2	8	7	3	....	32	32	32	32	32	32	18	10	10	10	3	32	....	....	32	....	....	....	....	....	..
Mountain	10	2	3	2	6	5	....	28	28	28	28	28	28	13	11	11	11	5	28	...	....	.....	....	....	....	....	....	..
Mount Ingersoll	5	....	2	7	5	6	.	25	25	25	25	25	25	18	11	11	11	6	25	...	....	25	....	...	....	....	....	
Moyase	4	....	2	5	3	4	....	18	18	18	18	18	18	12	7	7	7	4	18	....	...	18	....	....	...	....	....	..
Moyie (2 Divisions)	4	4	7	14	8	11	....	48	48	48	48	48	48	33	19	19	19	11	48	....	....	48	....	....	....	....	....	..
Myncaster	6	....	2	....	1	1	....	10	10	10	10	10	10	2	2	2	2	1	10	....	...	.....	....	....	....	....	...	..
Macalister	....	....	2	1	2	5	....	10	10	10	10	10	10	8	7	7	7	5	10	....	....	.....	....	....	....	....	..	..
McBride	13	7	4	9	7	5	....	45	45	45	45	45	45	21	12	12	12	5	45	....	....	.....	....	....	....	....	....	..
McGuire	2	2	1	1	7	3	....	16	16	16	16	16	16	11	10	10	10	3	16	....	....	.....	...	....	....	....	....	..
MacKenzie	3	3	3	3	9	2	....	23	23	23	23	23	23	14	11	11	11	2	23	....	....	.....	....	....	....	....	....	..
Nakusp (2 Divisions)	9	....	5	13	13	25	....	65	65	65	65	65	65	51	38	38	38	25	65	....	....	.....	....	....	....	....	..	..
Nanaimo Bay (2 Divisions)	17	5	15	14	29	2	....	82	82	82	82	82	82	45	31	31	31	2	82	....	....	.....	....	....	....	...	....	..
Nanoose Bay	2	3	3	3	4	4	....	19	19	19	19	19	19	11	8	8	8	4	19	..	....	.....	....	....	....	....	....	..
Naramata (2 Divisions, Superior)	4	....	2	5	4	12	8	35	35	35	29	27	29	21	16	16	24	20	35	...	....	15	8	8	8	8	6	6
Nechako	....	2	2	3	2	3	...	12	12	12	12	12	12	8	5	5	5	3	12	...	....	.....	....	....	....	....	....	..
Needles	1	4	1	4	3	4	....	17	17	17	17	17	17	11	7	7	7	4	17	....	...	.....	....	....	....	....	....	..

TABLE B.—Abstract of Studies, &c., pursued in the *Rural and Assisted Schools* for the year 1916-1917.—*Continued.*

RURAL AND ASSISTED SCHOOLS.	First Primer.	Second Primer.	First Reader.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.	Writing.	Dictation and Spelling.	Composition.	Arithmetic.	Nature Lessons & Hygiene.	Drawing.	Geography.	Canadian History.	British History.	English Grammar.	English Literature.	Physical Exercises.	Manual Training.	Domestic Science (Needle-work, etc.).	Music.	Algebra.	Geometry.	Latin.	French.	Physical Science.	Botany.
New Denver (2 Divisions)	4	5	10	15	12	27	3	76	76	76	74	73	74	54	39	39	42	30	76	....	....	.....	3	3	3	3	2	2
Nickel Plate	1	3	1	2	3	....	....	10	10	10	10	10	10	5	3	3	3	....	10	....	....	10	....	....	....	....	....	....
Nicola	7	....	3	1	3	5	....	19	19	19	19	19	19	9	8	8	8	5	19	....	....	.....	....	....	....	....	....	....
Nicola, Lower	6	3	7	3	....	6	....	25	25	25	25	25	25	9	6	6	6	6	25	....	....	.....	....	....	....	....	....	....
Nicomen	6	....	4	....	5	4	....	19	19	19	19	19	19	9	9	9	9	4	19	....	....	.....	....	....	....	....	....	....
Nicomen, North	6	....	2	2	2	5	....	17	17	17	17	17	17	9	7	7	7	5	17	....	....	17	....	....	....	....	....	....
Nimpkish	....	....	2	2	1	3	....	8	8	8	8	8	8	6	4	4	4	3	8	....	....	.....	....	....	....	....	....	....
Nine-mile Creek	....	....	1	2	4	3	....	10	10	10	10	10	10	9	7	7	7	3	10	....	....	10	....	....	....	....	....	....
Nob Hill	....	....	2	1	3	6	....	12	12	12	12	12	12	10	9	9	9	6	12	....	....	.....	....	....	....	....	....	....
North Bend (2 Divisions)	7	....	4	15	12	13	....	51	51	51	51	51	51	40	25	25	25	13	51	....	....	....	....	....	....	....	....	....
Northfield (2 Divisions)	8	9	8	5	20	10	....	60	60	60	60	60	60	35	30	30	30	10	60	....	....	....	....	....	....	....	....	
North Thompson, West	....	1	....	....	3	2	....	6	6	6	6	6	6	5	5	5	5	2	6	....	....	.....	....	....	....	....	....	....
Notch Hill (2 Divisions)	5	1	2	10	11	13	....	42	42	42	42	42	42	34	24	24	24	13	42	....	....	.....	....	....	....	....	....	....
No. 7 Mine (2 Divisions)	29	6	5	5	11	15	....	71	71	71	71	71	71	31	26	26	26	15	71	....	....	.....	....	....	....	....	....	....
Ocean Falls	6	4	8	4	1	9	....	32	32	32	32	32	32	14	10	10	10	9	32	....	....	32	....	....	....	....	....	....
Okanagan	9	....	1	13	3	5	....	31	31	31	31	31	31	21	8	8	8	5	31	....	....	.....	....	....	....	....	....	....
Okanagan Centre	....	2	....	3	1	8	....	14	14	14	14	14	14	12	9	9	9	8	14	....	....	14	....	....	....	....	....	....
Okanagan Falls	3	....	3	....	5	4	....	15	15	15	15	15	15	9	9	9	9	4	15	....	....	.....	....	....	....	....	....	....
Okanagan Landing	4	3	5	8	9	2	....	31	31	31	31	31	31	19	11	11	11	2	31	....	....	31	....	....	....	....	....	....
Okanagan, South	9	....	9	3	7	4	....	32	32	32	32	32	32	14	11	11	11	4	32	....	....	32	....	....	....	....	....	....
Okeover Arm	7	....	1	....	1	1	....	10	10	10	10	10	10	2	2	2	2	1	10	....	....	.....	....	....	....	....	....	....
Olalla	2	3	1	2	7	4	....	19	19	19	19	19	19	13	11	11	11	4	19	....	....	19	....	....	....	....	....	....

Olsen Lake	1	3	....	5	2	....	....	11	11	11	11	11	11	7	2	2	2	....	11	....	....	....	....	....	....	....	....	....	....	..
Ootsa Lake	5	1	...	1	....	2	...	9	9	9	9	9	9	3	2	2	2	2	9	..	...	....	....	....	....	..	....	....	....	..
Osland	1	2	....	4	2	1	...	10	10	10	10	10	10	7	3	3	3	1	10	....	....	....	....	....	....	....	....	....	....	..
Otter Point	3	4	1	2	5	2	...	17	17	17	17	17	17	9	7	7	7	2	17	....	....	.....	....	....	....	....	....	....	....	..
Oyama (2 Divisions)	3	1	3	15	7	16	....	45	45	45	45	45	45	38	23	23	23	16	45	....	....	.	....	....	....	....	....	....	....	..
Oyster	5	....	6	3	4	4	....	22	22	22	22	22	22	11	8	8	8	4	22	....	..	22	....	....	...	....	....	....	....	..
Oyster, North	6	1	4	8	6	11	....	36	36	36	36	36	36	25	17	17	17	11	36	....	....	.....	....	....	....	....	....	....	....	..
Pachelqua	4	6	1	3	6	...	....	20	20	20	20	20	20	9	6	6	6	....	20	....	....	....	....	....	....	....	....	....	....	..
Pacific	2	1	5	3	....	..	. .	11	11	11	11	11	11	3	.....	.....	.....	....	11	....	....	11	....	....	...	....	....	....	....	..
Parks Siding	2	....	....	3	4	2	....	11	11	11	11	11	11	9	6	6	6	2	11	.	....	11	....	....	..	....	....	....	....	..
Parksville	5	3	8	7	6	10	....	39	39	39	39	39	39	23	16	16	16	10	39	....	....	.....	....	....	....	....	....	....	....	..
Parson	7	2	1	3	1	2	....	16	16	16	16	16	16	6	3	3	3	2	16	...	....	16	....	....	....	....	....	....	....	..
Pavilion	1	...	1	5	2	2	....	11	11	11	11	11	11	9	4	4	4	2	11	....	...	11	....	....	....	....	....	....	....	..
Pemberton Meadows	2	....	2	2	2	6	...	14	14	14	14	14	14	10	8	8	8	6	14	....	....	.....	....	....		....	....	....	....	..
Pemberton Range	4	....	2	3	7	2	....	18	18	18	18	18	18	12	9	9	9	2	18	....	....	.....	....	...	....	....	....	....	....	.
Pender Harbour	5	....	5	3	4	2	...	19	19	19	19	19	19	9	6	6	6	2	19	....	....	19	....	....	....	....	....	....	....	..
Pender Island	2	....	7	3	4	4	..	20	20	20	20	20	20	11	8	8	8	4	20	....	....	.....	....	....	....	....	....	....	....	..
Perry Siding	2	4	2	7	3	6	....	24	24	24	24	24	24	16	9	9	9	6	24	....	....	.....	....	...	....	....	....	....	....	..
Pinantan	....	2	2	5	2	1	...	12	12	12	12	12	12	8	3	3	3	1	12	....	....	.....	....	....	....	....	....	....	....	..
Porcher Island	2	1	....	2	1	4	....	10	10	10	10	10	10	7	5	5	5	4	10	....	....	10	....	....	....	....	....	....	....	..
Port Clements	1	1	1	3	3	1	....	10	10	10	10	10	10	7	4	4	4	1	10	...	....	.....	....	....	....	....	....	....	....	..
Port Hardy	...	2	....	3	5	5	....	15	15	15	15	15	15	13	10	10	10	5	15	....	....	.....	....	....	....	....	....	....	....	..
Port Renfrew	1	1	2	1	....	....	....	5	5	5	5	5	5	1	.....	.....	.....	....	5	....	...	.....	....	....	....	....	....	....	....	..
Port Washington	4	....	1	3	2	1	....	11	11	11	11	11	11	6	3	3	3	1	11	....	....	11	....	....	...	....	....	....	....	..
Pouce Coupe	3	....	4	7	5	2	....	21	21	21	21	21	21	14	7	7	7	2	21	....	....	.....	....	...	....	....	....	....	....	..
Pouce Coupe, North	....	2	....	2	7	2	....	13	13	13	13	13	13	11	9	9	9	2	13	....	....	.....	....	....	....	....	....	....	....	..
Powell River (5 Divisions)	35	13	19	39	26	29	....	161	161	161	161	161	161	94	55	55	55	29	161	....	....	129	...	....	....	....	....	....	....	..
Princeton (3 Divisions)	24	7	13	18	24	17	....	103	103	103	103	103	103	59	41	41	41	17	103	....	....	103	....	....	....	....	....	....	....	..
Princeton, East	8	.	2	3	5	....	...	18	18	18	18	18	18	8	5	5	5	. ..	18	....	....	....	....	....	....	....	....	....	....	..
Procter	14	2	5	4	7	3	....	35	35	35	35	35	35	14	10	10	10	3	35	....	....	.....	....	....	...	....	....	....	....	..
Qualicum Beach (2 Divisions)	5	4	5	5	10	8	3	40	40	40	40	39	40	23	18	18	21	11	40	....	...	22	3	3	3	3	....	....	....	..
Qualicum, Little	2	3	1	4	4	4	....	18	18	18	18	18	18	12	8	8	8	4	18	....	...	.....	....	....	....	....	....	....	....	..

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Quatsino	6	....	2	4	...	9	1	22	22	22	22	21	22	13	9	9	10	10	22	....	....	.....	1	1	1	1	..	..
Queen Charlotte	1	4	2	....	2	2	....	11	11	11	11	11	11	4	4	4	4	2	11	....	....	.....	...	....	....	....	....	..
Quesnel (2 Divisions)	4	5	6	8	11	16	....	50	50	50	50	50	50	35	27	27	27	16	50	....	....	.....	....	....	....	....	....	..
Ray Lake	3	....	....	4	2	4	....	13	13	13	13	13	13	10	6	6	6	4	13	....	....	.....	....	....	....	....	....	..
Refuge Cove	1	2	1	....	2	4	....	10	10	10	10	10	10	6	6	6	6	4	10	....	....	.....	....	....	....	....	....	..
Reiswig	3	2	....	2	3	2	....	12	12	12	12	12	12	7	5	5	5	2	12	....	....	.....	....	....	....	....	....	..
Renata	5	....	1	2	....	9	....	17	17	17	17	17	17	11	9	9	9	9	17	....	....	.....	....	....	....	....	....	..
Retreat Cove	....	....	2	3	6	1	....	12	12	12	12	12	12	10	7	7	7	1	12	....	....	12	....	....	....	....	....	..
Richlands	1	....	....	4	3	1	....	9	9	9	9	9	9	8	4	4	4	1	9	....	....	.....	....	....	....	....	....	..
Riondel	5	....	2	3	2	1	....	13	13	13	13	13	13	6	3	3	3	1	13	....	....	.....	....	....	...	....	....	..
Roberts Creek	2	....	3	2	6	2	...	15	15	15	15	15	15	10	8	8	8	2	15	....	....	.....	....	....	...	....	....	..
Robin's Range	4	5	2	7	6	5	...	29	29	29	29	29	29	18	11	11	11	5	29	....	....	29	....	....	....	....	....	..
Robson	7	...	2	4	7	6	....	26	26	26	26	26	26	17	13	13	13	6	26	....	....	.....	....	....	....	....	....	..
Rock Bay	1	3	1	2	4	4	....	15	15	15	15	15	15	10	8	8	8	4	15	....	....	15	...	....	....	....	...	..
Rock Creek	8	4	7	2	5	7	....	33	33	33	33	33	33	14	12	12	12	7	33	....	....	.....	....	....	...	....	....	..
Rocky Point	1	1	1	5	2	3	....	13	13	13	13	13	13	10	5	5	5	3	13	....	....	....	....	....	....	....	....	..
Roe Lake	3	2	2	3	6	2	....	18	18	18	18	18	18	11	8	8	8	2	18	....	....	. ...	....	....	....	....	....	..
Roosville	2	2	2	....	6	2	....	14	14	14	14	14	14	8	8	8	8	2	14	....	....	.....	....	...	....	....	....	..
Rosebery	4	....	....	....	4	....	....	8	8	8	8	8	8	4	4	4	4	....	8	...	....	.....	....	....	....	....	....	..
Rose Hill	6	1	2	2	6	4	....	21	21	21	21	21	21	12	10	10	10	4	21	....	....	.....	....	....	....	....	....	..
Round Top	3	2	....	3	4	....	....	12	12	12	12	12	12	7	4	4	4	...	12	....	....	12	....	....	...	....	....	..
Royston	6	1	2	3	3	3	....	18	18	18	18	18	18	9	6	6	6	3	18	....	....	18	....	....	....	....	....	..

Rutland (3 Divisions, Superior)	18	....	4	15	21	19	9	86	86	86	81	77	81	55	40	40	49	28	86	....	....	37	9	9	9	9	5	5			
Saanich, North	12	5	4	3	14	5	...	43	43	43	43	43	43	22	19	19	19	5	43	...	....	.....	....	....	....	....	....	..			
Sahtlam	2	2	3	1	4	2	...	14	14	14	14	14	14	7	6	6	6	2	14	....	....	14	...	....	....	....	....	..			
St. Elmo	10	4	3	4	5	4	....	30	30	30	30	30	30	13	9	9	9	4	30	....	....	.....	....	....	....	....	....	..			
Salmo (2 Divisions)	3	9	8	5	12	13	....	50	50	50	50	50	50	30	25	25	25	13	50	....	....	.....	....	....	....	....	....	..			
Salmon River	4	....	2	2	5	....	...	13	13	13	13	13	13	7	5	5	5	....	13	....	....	13	....	....	....	....	....	..			
Salmon Valley	5	5	3	5	4	2	....	24	24	24	24	24	24	11	6	6	6	2	24	....	....	.....	....	....	....	....	....	..			
Sandspit	3	1	...	3	7	5	....	19	19	19	19	19	19	15	12	12	12	5	19	....	....	.....	....	....	....	....	....	..			
Sandwick	3	....	6	5	2	20	.	36	36	36	36	36	36	27	22	22	22	20	36	...	....	.....	..	....	....	....	....	..			
Saskatoon Creek	....	....	...	2	5	3	....	10	10	10	10	10	10	10	8	8	8	3	10	....	....	.....	....	....	....	....	....	.			
Savary Island	....	1	...	5	2	3	....	11	11	11	11	11	11	10	5	5	5	3	11	....	....	.....	....	....	....	....	....	..			
Savona	7	....	2	1	3	....	....	13	13	13	13	13	13	4	3	3	3	....	13	....	....	.....	....	...	...	....	....	..			
Sayward	1	1	....	2	3	4	....	11	11	11	11	11	11	9	7	7	7	4	11	....	....	11	....	....	....	....	....	..			
Sechelt	7	....	2	2	4	4	....	19	19	19	19	19	19	10	8	8	8	4	19	....	....	19	....	....	....	....	....	..			
Seton Lake Creek	2	...	2	4	4	3	....	15	15	15	15	15	15	11	7	7	7	3	15	....	....	.....	....	...	....	....	....				
Seymour Arm	4	1	1	8	....	4	....	18	18	18	18	18	18	12	4	4	4	4	18	....	....	18	...	....	....	....	....	..			
Shaw Cove	3	2	1	3	2	....	....	11	11	11	11	11	11	5	2	2	2	....	11	....	....	.....	....	....	....	....	....	..			
Shawnigan	12	2	..	1	6	12	....	33	33	33	33	33	33	19	18	18	18	12	33	....	....	.....	....	....	...	....	....	..			
Shirley	1	1	..	....	....	....	....	2	2	2	2	2	2	.....	.....	.....	.....	....	2	....	....	.....	....	....	....	....	....	..			
Shoreacres	12	3	2	5	2	8	...	32	32	32	32	32	32	15	10	10	10	8	32	....	....	32	....	....	....	....	....	..			
Shuswap	5	....	3	....	4	....	....	12	12	12	12	12	12	4	4	4	4	....	12	....	....	12	....	....	....	....	....	..			
Shuswap Falls	2	....	....	3	7	1	....	13	13	13	13	13	13	11	8	8	8	1	13	....	....	13	....	....	....	....	....	..			
Shuswap, North	7	....	....	7	7	7	....	28	28	28	28	28	28	21	14	14	14	7	28	..		28	....	....	....	....	....	..			
Shutty Bench	5	....	1	1	3	....	....	10	10	10	10	10	10	4	3	3	3	....	10	....	....	.....	....	....	....	....	....	..			
Sicamous	3	4	....	1	9	4	....	21	21	21	21	21	21	14	13	13	13	4	21	...	....	21	....	....	....	....	....	..			
Sidney (3 Divisions, Superior)	24	5	12	11	33	21	10	116	116	116	112	106	112	65	54	54	64	31	116	....	....	116	10	10	10	10	4	4			
Silver Creek	2	2	1	8	10	3	....	26	26	26	26	26	26	21	13	13	13	3	26	....	...	26	....	....	....	....	....	..			
Silverton (2 Divisions)	17	5	12	7	15	18	....	74	74	74	74	74	74	40	33	33	33	18	74	...	....	.....	....	....	....	....	....	..			
Similkameen	1	....	1	3	5	5	....	15	15	15	15	15	15	13	10	10	10	5	15	....	...	15	...	....	....	....	....	..			
Simpson	1	1	3	7	10	9	....	31	31	31	31	31	31	26	19	19	19	9	31	....	....	31	....	....	....	....	....	..			
Sinclair	....	4	....	3	2	....	....	9	9	9	9	9	9	5	2	2	2	....	9	....	....	.....	....	....	....	...	....	..			
Sirdar	2	3	....	3	5	5	....	18	18	18	18	18	18	13	10	10	10	5	18	....	....	.....	....	...	....	....	....	..			

TABLE B.—Abstract of Studies, &c., pursued in the *Rural and Assisted Schools* for the year 1916-1917.—*Continued.*

RURAL AND ASSISTED SCHOOLS.	First Primer.	Second Primer.	First Reader.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.	Writing.	Dictation and Spelling.	Composition.	Arithmetic.	Nature Lessons & Hygiene.	Drawing.	Geography.	Canadian History.	British History.	English Grammar.	English Literature.	Physical Exercises.	Manual Training.	Domestic Science (Needle-work, etc.).	Music.	Algebra.	Geometry.	Latin.	French.	Physical Science.	Botany.
Sisters Creek	2	2	....	4	....	....	....	8	8	8	8	8	8	4	.....	.....	.....	....	8	...	....	8	....	....	....	....	....	..
Skidegate	2	1	....	2	....	1	....	6	6	6	6	6	6	3	1	1	1	1	6	....	...	.....	....	....	....	....	....	..
Skookumchuck	5	3	2	3	....	....	....	13	13	13	13	13	13	3	.....	...	....	....	13	....	...	.....	....	....	....	....	....	..
Slocan Junction	9	....	2	....	13	3	....	27	27	27	27	27	27	16	16	16	16	3	27	....	....	27	....	....	....	....	....	..
Smithers	4	4	2	5	5	9	...	29	29	29	29	29	29	19	14	14	14	9	29	....	....	.....	....	....	....	....	....	..
Soda Creek	3	3	....	2	3	5	....	16	16	16	16	16	16	10	8	8	8	5	16	....	...	.....	...	....	....	....	....	..
Solsqua	4	...	2	1	5	3	....	15	15	15	15	15	15	9	8	8	8	3	15	....	....	15	....	....	....	....	....	..
Sooke	3	7	8	6	5	5	....	34	34	34	34	34	34	16	10	10	10	5	34	...	....	.....	....	....	....	...	....	..
Sooke Harbour	2	1	....	2	2	....	....	7	7	7	7	7	7	4	2	2	2	....	7	....	....	....	....	....	....	....	....	..
Sorrento	4	....	....	8	3	3	....	18	18	18	18	18	18	14	6	6	6	3	18	...	....	.....	....	....	....	....	...	..
Spences Bridge	1	4	3	2	6	5	...	21	21	21	21	21	21	13	11	11	11	5	21	....	....	21	....	...	...	....	....	..
Squam Bay	1	8	..	1	2	....	....	12	12	12	12	12	12	3	2	2	2	....	12	...	....	12	....	....	....	....	....	..
Squamish	3	1	4	4	6	4	...	22	22	22	22	22	22	14	10	10	10	4	22	....	....	.....	....	....	....	...	....	..
Squamish, Lower (2 Divisions)	4	4	3	7	10	8	....	36	36	36	36	36	36	25	18	18	18	8	36	..	....	18	....	....	....	....	...	..
Squirrel Cove	14	....	....	1	....	3	....	18	18	18	18	18	18	4	3	3	3	3	18	....	....	.....	....	....	....	....	....	..
Standard Mine	3	8	...	6	6	....	....	23	23	23	23	23	23	12	6	6	6	....	23	....	....	23	....	....	....	....	....	..
Stellaco	2	1	1	6	3	....	....	13	13	13	13	13	13	9	3	3	3	....	13	....	....	13	....	....	....	....	....	..
Stewart	1	....	....	1	2	1	....	5	5	5	5	5	5	4	3	3	3	1	5	....	....	.....	....	....	...	....	....	..
Sullivan Valley	6	...	1	3	3	5	....	18	18	18	18	18	18	11	8	8	8	5	18	....	....	18	....	...	....	....	....	..
Sunnybrae	1	....	....	2	5	2	....	10	10	10	10	10	10	9	7	7	7	2	10	..	..	.....	....	....	...	....	....	..
Sunnyside	....	3	1	2	1	2	....	9	9	9	9	9	9	5	3	3	3	2	9	....	....	.....	....	....	....	....	....	..
Sunnyside, No. 2	...	1	3	4	1	1	....	10	10	10	10	10	10	6	2	2	2	1	10	....	....	10	....	....	....	....	....	..

Swift Creek	3	3	1	2	2	....	....	11	11	11	11	11	11	4	2	2	2	...	11	....	....	.....	....	....	....	....	....	....	....	....	....
Syringa Creek	....	2	....	1	4	1	....	8	8	8	8	8	8	6	5	5	5	1	8	....	....	.....	....	....	....	....	....	....	....	....	....
Taft	4	....	1	2	....	....	....	7	7	7	7	7	7	2	.....	.....	.....	.....	7	....	....	7	....	....	....	....	....	....	....	....	....
Tappen Siding	4	....	5	5	7	9	....	30	30	30	30	30	30	21	16	16	16	9	30	....	....	.....	....	....	....	....	....	....	....	....	....
Tappen Valley	3	2	4	4	3	7	....	23	23	23	23	23	23	14	10	10	10	7	23	....	....	23	....	....	....	....	....	....	....	....	....
Telegraph Creek	25	6	....	....	1	....	....	32	32	32	32	32	32	1	1	1	1	....	32	....	....	.....	....	....	....	....	....	....	....	....	....
Telkwa	1	3	1	3	3	4	....	15	15	15	15	15	15	10	7	7	7	4	15	....	....	.....	....	....	....	....	....	....	....	....	....
Three Forks	1	2	2	1	....	2	....	8	8	8	8	8	8	3	2	2	2	2	8	....	....	.....	....	....	....	....	....	....	....	....	....
Three Valley	....	....	1	1	4	6	....	12	12	12	12	12	12	11	10	10	10	6	12	...	....	....	....	....	....	....	....	....	....	....	....
Thrums	14	....	3	11	11	7	....	46	46	46	46	46	46	29	18	18	18	7	46	...	....	46	....	....	....	....	....	....	....	....	....
Thurlow Island	3	1	...	1	2	4	....	11	11	11	11	11	11	7	6	6	6	4	11	....	....	.....	....	....	....	..	....	....	....	....	....
Tranquille	3	....	3	1	2	5	....	14	14	14	14	14	14	8	7	7	7	5	14	....	....	.....	....	....	....	....	....	....	....	....	....
Trapp Lake	3	3	3	1	4	1	...	15	15	15	15	15	15	6	5	5	5	1	15	....	....	15	....	....	....	....	....	....	....	....	....
Trout Creek, Upper	2	1	....	2	4	6	....	15	15	15	15	15	15	12	10	10	10	6	15	....	....	15	....	....	....	....	....	....	....	....	....
Trout Lake	4	....	1	4	2	7	....	18	18	18	18	18	18	13	9	9	9	7	18	....	....	.....	....	....	....	....	....	....	....	....	....
Tulameen	6	2	1	3	3	1	....	16	16	16	16	16	16	7	4	4	4	1	16	....	....	16	....	....	....	....	....	....	....	....	....
Turtle Valley	5	1	2	1	5	4	....	18	18	18	18	18	18	10	9	9	9	4	18	....	....	18	...	....	....	....	....	....	....	....	....
Ucluelet	1	....	4	3	4	2	....	14	14	14	14	14	14	9	6	6	6	2	14	....	....	.....	....	....	....	....	....	....	....	....	....
Ucluelet Arm	2	....	1	....	3	4	....	10	10	10	10	10	10	7	7	7	7	4	10	....	....	.....	....	....	....	....	....	....	....	....	....
Ucluelet, East	2	1	....	5	2	5	....	15	15	15	15	15	15	12	7	7	7	5	15	....	....	15	....	....	....	....	....	....	....	....	....
Union Bay (2 Divisions)	10	9	13	9	13	11	....	65	65	65	65	65	65	33	24	24	24	11	65	....	....	41	....	....	....	....	....	....	....	....	....
Valdes Island	1	5	1	....	5	4	....	16	16	16	16	16	16	9	9	9	9	4	16	..	....	.....	....	....	....	....	....	....	....	....	....
Vananda (2 Divisions)	6	....	7	19	12	9	....	53	53	53	53	53	53	40	21	21	21	9	53	....	....	.....	....	....	....	....	....	....	....	....	....
Vanderhoof	4	2	1	3	2	10	....	22	22	22	22	22	22	15	12	12	12	10	22	....	....	.....	....	....	....	....	....	....	....	....	....
Vargas	....	3	....	....	2	1	....	6	6	6	6	6	6	3	3	3	3	1	6	....	....	.....	....	....	....	....	....	....	....	....	....
Vesuvius	3	....	10	3	7	2	....	25	25	25	25	25	25	12	9	9	9	2	25	....	....	.....	....	....	....	....	....	....	....	....	....
Vesuvius, North	5	...	3	4	3	2	....	17	17	17	17	17	17	9	5	5	5	2	17	....	....	17	....	....	....	....	....	....	....	....	....
Waldo (2 Divisions)	18	13	12	8	20	12	....	83	83	83	83	83	83	40	32	32	32	12	83	....	....	.....	....	....	....	....	....	....	....	....	....
Walhachin	3	3	5	1	1	....	...	13	13	13	13	13	13	2	1	1	1	...	13	..	....	13	....	....	....	....	....	....	....	....	....
Wanklyn	4	2	4	2	1	....	....	13	13	13	13	13	13	3	1	1	1	....	13	....	....	.....	....	....	....	....	....	....	....	....	....
Wapta	3	4	1	2	3	4	....	17	17	17	17	17	17	9	7	7	7	4	17	....	....	17	....	....	....	....	....	....	....	....	....
Wardner	6	10	11	5	5	2	....	39	39	39	39	39	39	12	7	7	7	2	39	..	....	.....	....	....	....	....	....	....	....	....	....

TABLE B.—Abstract of Studies, &c., pursued in the *Rural and Assisted Schools* for the year 1916-1917.—*Concluded.*

RURAL AND ASSISTED SCHOOLS.	First Primer.	Second Primer.	First Reader.	Second Reader.	Third Reader.	Fourth Reader.	Fifth Reader.	Writing.	Dictation and Spelling.	Composition.	Arithmetic.	Nature Lessons & Hygiene.	Drawing.	Geography.	Canadian History.	British History.	English Grammar.	English Literature.	Physical Exercises.	Manual Training.	Domestic Science (Needle-work, etc.).	Music.	Algebra.	Geometry.	Latin.	French.	Physical Science.	Botany.
Wasa	5	1	3	3	4	4	....	20	20	20	20	20	20	11	8	8	8	4	20	....	....	.....	....	....	....	....	....	..
Waterloo	7	1	7	3	....	1	....	19	19	19	19	19	19	4	1	1	1	1	19	....	....	.....	....	....	....	....	....	..
Watmore	4	....	1	4	2	1	....	12	12	12	12	12	12	7	3	3	3	1	12	....	....	12	....	....	....	....	....	..
Wellington (2 Divisions)	10	6	3	7	12	15	....	53	53	53	53	53	53	34	27	27	27	15	53	....	....	53	....	....	....	....	....	..
Wellington, South (4 Divisions)	33	14	12	30	33	19	...	141	141	141	141	141	141	82	52	52	52	19	141	....	....	141	....	....	....	....	....	..
Westbank Townsite	6	....	4	3	8	5	....	26	26	26	26	26	26	16	13	13	13	5	26	...	....	.....	....	....	....	....	....	..
Westview	3	1	2	2	1	3	....	12	12	12	12	12	12	6	4	4	4	3	12	....	....	12	....	....	....	....	....	..
Whaletown	3	1	1	...	1	4	....	10	10	10	10	10	10	5	5	5	5	4	10	....	....	.....	....	....	....	....	....	..
Whatshan	3	2	11	10	11	2	....	39	39	39	39	39	39	23	13	13	13	2	39	....	....	39	....	....	..	....	....	.
Wheeler Mountain	1	2	....	1	2	....	....	6	6	6	6	6	6	3	2	2	2	....	6	....	....	.....	....	....	....	....	....	..
White Lake	8	2	1	2	2	1	....	16	16	16	16	16	16	5	3	3	3	1	16	....	....	.....	....	....	....	....	....	..
Williams Lake	2	4	....	2	3	6	....	17	17	17	17	17	17	11	9	9	9	6	17	....	. ..	17	....	....	....	....	....	..
Williams Siding	2	1	2	2	5	1	....	13	13	13	13	13	13	8	6	6	6	1	13	....	....	.....	....	....	....	....	....	..
Willow River	7	1	4	2	10	4	....	28	28	28	28	28	28	16	14	14	14	4	28	....	....	28	....	....	....	....	....	..
Wilmer	1	....	5	2	4	4	2	18	18	18	18	16	18	10	8	8	10	6	18	....	....	.....	2	2	2	2	....	..
Windermere	....	....	2	4	2	4	....	12	12	12	12	12	12	10	6	6	6	4	12	....	....	12	....	....	....	....	....	..
Winlaw	8	....	5	1	2	3	....	19	19	19	19	19	19	6	5	5	5	3	19	....	....	.....	...	....	....	....	....	..
Woden River	1	1	1	2	1	3	....	9	9	9	9	9	9	6	4	4	4	3	9	....	....	9	....	....	....	....	...	..
Wolfson Bay	3	1	3	3	2	....	....	12	12	12	12	12	12	5	2	2	2	....	12	....	. .	.....	....	....	....	....	....	..
Woods Lake	8	1	4	6	7	12	1	39	39	39	39	38	39	25	19	19	20	13	39	....	....	39	1	1	1	1	....	..
Woodville Road	2	3	3	4	2	....	....	14	14	14	14	14	14	6	2	2	2	....	14	....	....	.....	....	....	....	....	....	..
Wycliffe	4	5	3	5	3	3	....	23	23	23	23	23	23	11	6	6	6	3	23	....	...	23	....	....	....	....	....	..

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TABLE A.—Attendance of Students at *Night Schools*, Studies pursued and Details of Management, 1916-1917.

Night Schools.	Number of prescribed school nights.	Number of nights school was in session.	Total actual attendance.	Average actual attendance.	Total number of students actually attending.	Men.	Women.	Number of visits by Advisory Committee.	Number of visits by Superintendent of Education and Director of Night Schools.	Number of visits by the Municipal Inspector and School Trustees.	Number of visits by other persons.	Total number of visits.
Nanaimo:												
English and Arithmetic	46	46	378	8.21	25	25	.....	.....	1	3	1	5
Mechanical Drawing	19	19	103	5.42	13	13	.....	.....	1	2	.....	3
Electrical Engineering	21	21	115	5.47	13	13	.....	.....	.....	5	.....	5
Coal-mining	51	50	346	6.92	15	15	.....	.....	.....	5	.....	5
Domestic Science	43	43	382	8.88	12	.....	12	.....	1	3	.....	4
Nelson:												
Carpentry and Joinery, 1st stage	30	30	392	13.07	19	14	5	.....	.....	.....	7	7
Blowpipe Analysis for prospectors	31	30	372	12.40	21	21	.....	2	.....	.....	7	9
Cookery, 1st stage	33	33	345	10.45	27	.....	27	.....	.....	2	5	7
New Westminster:												
Practical Mathematics	24	24	232	9.67	19	19	.....	.....	.....	5	.....	5
Shorthand and Typewriting	24	24	447	18.63	29	9	20	4	1	.....	.....	5
Book-keeping	24	24	295	12.29	24	7	17	4	1	.....	.....	5
Motor Car Engineering and Gasolene Engine	24	24	541	22.54	38	34	4	.....	1	4	3	8
Dressmaking, 1st and 2nd stages	24	24	381	15.87	25	.....	25	.....	1	4	3	8
Cookery, 1st stage	24	23	313	13.61	26	.....	26	.....	1	5	3	9
Rossland:												
Chemistry	17	16	99	6.18	12	12	.....	.....	1	.....	.....	1
English, Arithmetic, and Book-keeping	35	33	692	20.97	66	60	6	4	1	.....	.....	5
Geology and Mineralogy	17	16	113	7.06	25	25	.....	.....	1	3	1	5

Trail:												
English and Arithmetic, 2nd stage	71	71	1098	15.46	41	41	.....	3	.....	3	2	8
English for foreign-born citizens	80	80	1268	15.85	38	36	2	2	.....	1	4	7
Chemistry and Mineralogy	33	26	201	7.73	28	27	1	.....	.....	.....	.....	.....
Vancouver:												
Aberdeen School:												
Music, Choral	24	24	1668	69.50	102	27	75	.....	.....	1	.....	1
Music, 1st stage	24	24	607	25.29	36	11	25	.....	.....	1	.....	1
Music, Instrumental, Class 1	24	24	329	13.70	17	4	13	.....	.....	2	4	6
" " " 2	24	24	532	22.16	26	13	13	.....	.....	1	62	63
King Edward High School:												
Commercial English and Arithmetic	47	47	1315	27.97	73	54	19	.....	1	3	.....	4
Shorthand, 1st stage	47	47	1758	37.40	67	27	40	.....	3	4	.....	7
" 1st and 2nd stages	47	47	2624	55.82	80	19	61	.....	.....	3	11	14
Shorthand, Speed Class	48	48	2668	55.58	80	12	68	.....	.....	3	6	9
Typewriting, Class 1	47	47	950	20.21	31	14	17	.....	.....	4	1	5
" " 2	48	48	1017	21.18	49	8	41	.....	.....	3	.....	3
Book-keeping, 1st stage, Class 1	47	47	1808	38.46	59	31	28	.....	2	4	.....	6
" 1st " " 2	48	48	1857	38.68	60	37	23	.....	.....	3	.....	3
" 2nd "	48	48	1035	21.56	42	30	12	.....	.....	6	.....	6
Electrical Engineering, 1st stage	47	47	1262	26.85	40	40	.....	.....	.....	3	3	6
Ignition, etc	13	13	385	29.61	42	42	.....	.....	.....	2	1	3
Physical Culture	19	19	406	21.36	34	20	14	.....	.....	1	.....	1
Dressmaking, 1st stage	47	47	638	13.57	23	.....	23	.....	.....	4	.....	4
" 1st and 2nd stages	48	48	678	14.12	21	.....	21	.....	.....	4	6	10
Cookery, 1st stage	46	46	750	16.30	26	.....	26	.....	1	3	1	5
School Board Office:												
English and Arithmetic, 1st stage	48	48	1610	33.54	49	35	14	.....	1	2	1	4
" " 2nd "	48	48	1093	22.77	44	33	11	.....	1	2	.....	3
English for foreign-born citizens	45	45	467	10.37	28	20	8	.....	2	2	1	5
French, Elementary	47	47	1066	22.68	40	18	22	.....	2	7	.....	9
" Advanced	48	48	608	12.66	19	11	8	.....	2	6	.....	8

TABLE A.—Attendance of Students at *Night Schools*, Studies pursued and Details of Management, 1916-1917.—*Concluded.*

NIGHT SCHOOLS.	Number of prescribed school nights.	Number of nights school was in session.	Total actual attendance.	Average actual attendance.	Total number of students actually attending.	Men.	Women.	Number of visits by Advisory Committee.	Number of visits by Superintendent of Education and Director of Night Schools.	Number of visits by the Municipal Inspector and School Trustees.	Number of visits by other persons.	Total number of visits.
Vancouver.—*Concluded:*												
School Board Office.—*Concluded:*												
Practical Mathematics	48	48	925	19.27	41	37	4	.....	2	6	.....	8
Machine Construction, etc.	48	48	1023	21.31	28	28	.....	.....	1	1	.....	2
Stationary Engineering, 2nd stage	48	48	841	17.52	39	39	.....	.....	.....	4	.....	4
Navigation	47	47	418	8.89	16	16	.....	.....	.....	4	2	6
Drawing and Design	48	48	1127	23.47	42	20	22	.....	.....	10	2	12
Painting	24	24	316	13.16	24	7	17	.....	.....	2	.....	2
Drawing for Teachers	24	24	211	8.79	19	10	9	.....	.....	2	.....	2
Vancouver, South:												
Arithmetic and Book-keeping, 1st stage, Class 1	48	48	457	9.52	24	22	2	.....	.....	9	.....	9
" " 1st " " 2	47	47	1352	28.76	42	26	16	.....	.....	19	.....	19
Practical Mathematics, Class 1	48	43	434	10.09	17	16	1	.....	.....	15	.....	15
" " " 2	48	46	510	11.08	15	11	4	.....	.....	10	.....	10
Shorthand and Typewriting, Class 1	48	48	703	14.64	25	10	15	.....	.....	13	1	14
" " " 2	47	47	1073	22.82	34	8	26	.....	1	36	.....	37
" " " 3	46	46	484	10.52	15	4	11	.....	.....	5	.....	5
" " " 4	45	45	744	16.53	22	5	17	.....	.....	14	.....	14
Dressmaking, 1st and 2nd stages	48	46	772	16.78	24	.....	24	.....	1	24	.....	25
" 1st " 2nd "	47	45	493	10.95	18	.....	18	.....	.....	26	.....	26
" 1st " 2nd "	48	46	842	18.30	23	.....	23	.....	.....	17	.....	17
Dressmaking, 2nd stage	39	39	309	7.92	12	.....	12	.....	.....	25	.....	25
Millinery, Class 1	23	23	239	10.39	12	.....	12	.....	.....	12	.....	12

Millinery, Class 2	21	21	240	11.42	13	.....	13	.....	.....	4	.....	4
Cookery, 1st stage	23	23	312	13.56	19	.....	19	.....	1	12	.....	13
" 1st and 2nd stages	24	24	367	15.29	21	.....	21	.....	1	16	2	19
Victoria:												
English and Arithmetic, 1st stage	39	31	389	12.54	27	27	.....	.....	1	27	.....	28
" " 1st "	47	42	464	11.04	27	.....	27	.....	.....	44	.....	44
" " 2nd "	47	41	549	13.39	45	45	.....	.....	2	12	2	16
Arithmetic, 1st and 2nd stages	35	35	437	12.49	36	28	8	.....	.....	30	.....	30
Shorthand	47	47	1737	36.95	54	8	46	.....	.....	29	.....	29
Typewriting	46	45	691	15.35	36	18	18	.....	.....	43	.....	43
Typewriting, Supplementary	10	10	250	25.00	35	1	34	.....	.....	10	.....	10
Book-keeping, 1st stage	47	47	649	13.80	28	15	13	.....	.....	24	.....	24
" 2nd "	47	46	432	9.39	14	13	1	.....	3	39	.....	42
Workshop Arithmetic	49	48	695	14.47	23	23	.....	.....	.....	40	.....	40
Pure Mathematics	48	47	552	11.74	23	21	2	.....	.....	18	.....	18
Electrical Engineering	47	45	356	7.91	14	14	.....	.....	1	15	.....	16
Mechanical Drawing and Engineering	48	47	442	9.40	16	16	.....	.....	.....	17	.....	17
Motor-car Engineering, the Gasolene-engine, Class 1	48	47	1190	25.31	35	33	2	.....	1	29	.....	30
" " " 2	48	48	1121	23.31	39	39	.....	.....	1	27	.....	28
Pharmacy	47	43	339	7.88	11	11	.....	.....	.....	25	.....	25
Music, 1st stage	20	19	180	9 94	15	3	12	.....	.....	12	.....	12
Lettering, Show-card Writing and Design	24	23	222	9.25	10	8	2	.....	.....	4	.....	4
Russian	34	33	204	6.18	11	6	5	.....	.....	.....	.....	.....
French, Elementary	24	23	402	17.47	19	2	17	.....	.....	11	.....	11
" Advanced	24	23	332	14.43	15	.....	15	.....	1	10	.....	11
Plain Sewing and Needlework	47	46	382	8.30	16	.....	16	.....	2	38	.....	40
Dressmaking, 1st stage, Class 1	29	29	276	9.51	14	.....	14	.....	.....	9	.....	9
" 1st " " 2	73	71	770	10.84	28	.....	28	.....	1	45	.....	46
Millinery	48	47	610	12.97	16	.....	16	.....	2	26	.....	28
Cookery, 1st stage	48	41	542	13.22	21	.....	21	.....	.....	22	20	42
" 2nd "	48	27	158	5.85	10	.....	10	.....	.....	13	.....	13
Chemistry	48	45	308	6.84	11	9	2	.....	2	42	.....	44

TABLE B.—Abstract of Studies pursued in *Night Schools* for the year 1916-1917.

SUBJECTS.	Nanaimo.	Nelson.	New Westminster.	Rossland.	Trail.	Vancouver.	Vancouver, South.	Victoria.	Total.
English, 1st stage	25	.....	.....	26	38	49	.....	99	237
English, 2nd stage	.....	.....	.....	40	41	44	.....	.....	125
English for foreign-born citizens	.....	.....	.....	23	38	28	.....	.....	89
French	.....	.....	.....	.....	.....	59	.....	57	116
Russian	.....	.....	.....	.....	.....	.....	.....	11	11
Arithmetic, 1st stage	25	.....	.....	26	38	49	66	135	339
Arithmetic, 2nd stage	.....	.....	.....	40	41	44	.....	36	161
Workshop Arithmetic (Geometry and Mensuration)	.....	.....	.....	40	.....	.....	.....	39	79
Commercial English and Arithmetic	.....	.....	.....	.....	.....	73	.....	.....	73
Practical Mathematics	.....	.....	19	40	.....	41	32	16	148
Pure Mathematics	.....	.....	.....	40	.....	.....	.....	23	63
Book-keeping, 1st stage	.....	.....	14	40	.....	119	80	28	281
Book-keeping, 2nd stage	.....	.....	.....	.....	.....	42	.....	14	56
Shorthand, 1st stage	.....	.....	31	.....	.....	117	80	.....	228
Shorthand, 2nd stage	.....	.....	8	.....	.....	30	7	.....	45
Shorthand, Speed Class	.....	.....	.....	.....	.....	80	8	54	142
Typewriting	.....	.....	26	.....	.....	80	91	71	268
Machine Construction and Drawing	13	.....	.....	.....	.....	28	.....	16	57
Stationary Engineering	.....	.....	.....	.....	.....	39	.....	.....	39
Electrical Engineering	13	.....	.....	.....	.....	40	.....	14	67
Motor-car Engineering, the Gasolene Engine	.....	.....	38	.....	.....	.....	.....	74	112
Navigation	.....	.....	.....	.....	.....	16	.....	.....	16
Coal-mining	15	.....	.....	.....	.....	.....	.....	.....	15
Chemistry	.....	.....	.....	12	28	.....	.....	11	51
Blow-pipe Analysis for Prospectors	.....	21	.....	.....	.....	.....	.....	.....	21
Carpentry and Joinery, 1st stage	.....	19	.....	.....	.....	.....	.....	.....	19
Geology and Mineralogy	.....	.....	.....	25	.....	.....	.....	.....	25
Ignition	.....	.....	.....	.....	.....	42	.....	.....	42
Pharmacy	.....	.....	.....	.....	.....	.....	.....	11	11
Drawing and Design	.....	.....	.....	.....	.....	42	.....	.....	42
Drawing for Teachers	.....	.....	.....	.....	.....	19	.....	.....	19
Lettering and Show-card Writing	.....	.....	.....	.....	.....	.....	.....	10	10
Painting	.....	.....	.....	.....	.....	24	.....	.....	24
Plain Sewing and Needlework	.....	.....	.....	.....	.....	.....	.....	16	16
Dressmaking, 1st stage	.....	.....	25	.....	.....	44	65	42	176
Dressmaking, 2nd stage	.....	.....	25	.....	.....	21	77	.....	123
Millinery	.....	.....	.....	.....	.....	.....	25	16	41
Cookery, 1st stage	.....	27	26	.....	.....	26	40	21	140
Cookery, 2nd stage	.....	.....	.....	.....	.....	.....	21	10	31
Music, 1st stage	.....	.....	.....	.....	.....	36	.....	15	51

TABLE B.—Abstract of Studies pursued in *Night Schools* for the year 1916-1917.—*Concluded.*

SUBJECTS.	Nanaimo.	Nelson.	New Westminster.	Rossland.	Trail.	Vancouver.	Vancouver, South.	Victoria.	Total.
Music, Choral	.....	.....	.....	.....	.....	102	.....	.....	102
Music, Instrumental	.....	.....	.....	.....	.....	46	.....	.....	46
Physical Culture	.....	.....	.....	.....	.....	34	.....	.....	34
Penmanship	.....	.....	.....	.....	.....	.....	17	.....	17

TABLE C.—Public School Teachers and Trustees during 1916-1917.

City Schools.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Alberni, 1st Division	John Howitt	2nd Class	$ 76 50	W. R. H. Prescott, *Secretary,* — Two years.
" 2nd "	Miss A. S. Irvine	2nd "	60 00	D. H. Riddell, S. H. Toy, *Chairman.* — One year.
Armstrong:				
High School, 1st Div.	B. S. Freeman, B.A.	Academic	150 00	
" 2nd "	Miss Ida Tompkins, B.A.	"	125 00	
Central, 1st Division	A. A. Hartley, B.A.	"	120 00	
" 2nd "	Miss G. H. McKee	2nd Class	80 00	Alex. Adair, *Chairman,* — Two years.
" 3rd "	Miss K. J. Brett	3rd "	70 00	A. E. Morgan, — One year.
" 4th "	Miss Osberta McPherson	2nd "	70 00	J. M. Wright,
" 5th "	Miss C. M. Mackenzie	3rd "	70 00	Ernest Groves, *Secretary.*
" 6th "	Mrs. E. P. Dimock	2nd "	75 00	
Manual Training Inst.	Charles White	Man. Training	150 00	
Domestic Science Inst.	Miss A. B. Marcellus	Dom. Science	125 00	
Chilliwack:				
High School, 1st Div.	John Marr, M.A.	Academic	180 00	
" 2nd "	Victor Woodworth, B.A.	"	120 00	
" 3rd "	Miss E. J. Yuill, M.A.	"	110 00	
Central, 1st Division	T. V. Clarke	1st Class	150 00	
" 2nd "	Miss Marguerite Williams	1st "	80 00	J. F. Semple, *Chairman,* — Two years.
" 3rd "	Miss P. A. Green, B.A.	Academic	70 00	Wm. Atkinson, C. E. Eckert,
" 4th "	Miss D. A. Leary	3rd Class	60 00	
" 5th "	Miss A. E. Bradley	1st "	75 00	T. L. Lillie, — One year.
" 6th "	Miss Z. B. Wilson	1st "	70 00	F. B. Stacey, *Secretary.*
" 7th "	Miss J. G. MacLeod	3rd "	60 00	
" 8th "	Miss M. B. Marshall	2nd "	60 00	
" 9th "	Miss Sarah Marsden	3rd "	75 00	
Manual Training Inst.	J. W. Bennett	Man. Training	.....	
Domestic Science Inst.	Miss M. J. Courtney	Dom. Science	.....	
Courtenay:				
Central, 1st Div. (Sup.)	A. P. Carter, B.A.	Academic	110 00	Mrs. Jessie McQuillan, *Chairman,* — Two years.
" 2nd "	Miss C. J. Milligan	2nd Class	80 00	John Sutton, — One year.
" 3rd "	Miss E. J. Gibson	2nd "	65 00	W. G. Robertson, *Secretary.*
Cranbrook:				
High School	George Atkinson, B.Sc.	Academic	125 00	
Central, 1st Div.	R. S. Shields, B.A.	"	135 00	
" 2nd "	Miss Amy Woodland	1st Class	90 00	
" 3rd "	Miss E. M. Bechtel	1st "	85 00	
" 4th "	Miss S. D. White	3rd "	70 00	
" 5th "	Miss M. L. Cartwright	3rd "	70 00	William Anderson, I. R. Manning, — Two years.
" 6th "	Miss B. M. Pye	1st "	70 00	Harry White, *Chairman,*
" 7th "	Miss E. McK. Fisher	3rd "	70 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.	
Cranbrook.—*Concluded.*					
Central, 8th Div.	Miss Ethel Macdonald	1st Class	$ 70 00	W. J. Atchison,	One year.
" 9th "	Miss Annie McLennan	3rd "	80 00	W. H. Wilson,	
Kootenay Orchards	Robert Thompson	1st "	70 00	Thos. M. Roberts, *Secretary.*	
South Ward, 1st Div.	Mrs. M. E. Lees	2nd "	70 00		
" 2nd "	Mrs. J. M. Deane	3rd "	70 00		
Manual Training Inst.	A. G. Michelmore	Temp. Man. T.	125 00		
Cumberland:					
High School, 1st Div.	C. R. Drader	Academic	125 00		
" 2nd "	Miss H. M. Reed, B.A.	"	85 00		
Central, 1st Division	A. J. Richards	1st Class	110 00		
" 2nd "	Miss M. A. O'Neil	1st "	70 00		
" 3rd "	Miss J. E. Whyte	2nd "	62 50	Wesley Willard, *Chairman,*	Two years.
" 4th "	Miss J. E. Robertson	2nd "	55 00	Neil McFadyen,	One year.
" 5th "	Miss Jessie MacDonald	2nd "	52 00	T. H. Carey, *Secretary.*	
" 6th "	Miss Effie McFayden	3rd "	62 50		
" 7th "	Miss E. G. Bickle	2nd "	55 00		
" 8th "	Miss Agnes Frame	3rd "	62 50		
" 9th "	Miss Hilda Watson	2nd "	55 00		
Duncan:					
High School	A. D. Thorp, M.A.	Academic	125 00		
Central, 1st Division	A. B. Boyer	1st Class	100 00		
" 2nd "	Miss E. M. Weismiller	2nd "	72 50	Mrs. E. E. Macdonald, *Chairman,*	Two years.
" 3rd "	Miss B. S. Dickinson	2nd "	67 50		
" 4th "	Miss L. M. Smith	Academic	60 00	David Ford,	One year.
" 5th "	Miss Sibyl Hardwick (room closed)	"	60 00	Thomas Pitt,	
" 6th "	Miss N. Z. Barr	3rd Class	60 00	Jas. Greig, *Secretary.*	
" 7th "	Miss E. M. Bell	2nd "	60 00		
Domestic Science Inst.	Miss E. St. C. Pike	Dom. Science	75 00		
Enderby:					
High School	D. J. Welsh, B.A.	Academic	125 00		
Central, 1st Division	Miss M. V. Beattie	2nd Class	100 00	A. C. Skaling, *Secretary,*	Two years.
" 2nd "	Miss C. C. Fraser	2nd "	65 00	J. E. Crane, *Chairman,*	
" 3rd "	Miss Helen Rae	1st "	70 87	Samuel Polson,	One year.
" 4th "	Miss E. A. Carlson	2nd "	70 00		
Fernie:					
High School, 1st Div.	W. J. Cunningham	Academic	115 00		
" 2nd "	V. W. Jenkins, B.A.	"	115 00		
Central, 1st Division	E. G. Daniels, B.A.	"	175 00		
" 2nd "	Miss E. M. Hogan	1st Class	110 00		
" 3rd "	Miss A. M. Bruce	2nd "	75 00		
" 4th "	Miss I. R. Russell	2nd "	80 00		

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Fernie.—*Concluded:*				
Central, 5th Division..	Miss E. N. Walls.....	3rd Class.....	$ 75 00	
" 6th " ..	Miss A. E. O'Hearn.....	2nd "	75 00	
" 7th " ..	Miss Flora Macdonald.....	1st "	85 00	
" 8th " ..	Miss J. P. Maxwell.....	1st "	75 00	
" 9th " ..	Miss E. M. McAllister.....	3rd "	75 00	L. K. S. Herchmer, H. P. Wilson, T. H. Williams, *Chairman.* — Two years.
" 10th " ..	Miss D. M. Donnan.....	2nd "	75 00	
" 11th " ..	Miss B. K. Hamill.....	2nd "	80 00	
" 12th " ..	Miss Adeline Hartt.....	1st "	80 00	Wm. Stackwell, S. F. Wallace, — One year.
" 13th " ..	Miss S. M. MacRury.....	1st "	82 50	
" 14th " ..	Miss A. L. Noble.....	1st "	75 00	A. J. Moffatt, *Secretary.*
" 15th " ..	Miss N. F. Crocker.....	1st "	80 00	
" 16th " ..	Miss Isabel Dicken.....	3rd "	75 00	
" 17th " ..	Miss Henrietta Roy.....	2nd "	75 00	
" 18th " ..	Mrs. Alcima Elley..... ...	3rd "	80 00	
" 19th " ..	Miss M. C. Elliott.....	1st "	82 50	
" 20th " ..	Miss Jane Elliott.....	1st "	82 50	
" 21st " ..	Miss F. B. Morrison.....	3rd "	75 00	
Grand Forks:				
High School, 1st Div.	S. R. Stephens, B.A.	Academic.....	140 00	
" 2nd "	Miss A. I. Grierson, B.A...	"	100 00	
Central, 1st Division..	H. A. Glaspell.....	1st Class	135 00	
" 2nd " ..	A. M. Crawford.....	3rd "	90 00	
" 3rd " ..	Miss S. H. Fenton, L.L.A..	Academic.....	75 00	Mrs. Agnes Henniger, Mrs. E. A. Cooper, T. A. Love. — Two years.
" 4th " ..	Miss Margaret Hodge	1st Class	75 00	
" 5th " ..	Miss Helen McEwen.....	3rd "	75 00	Geo. H. Hull, *Secretary,* Frank Latham, *Chairman.* — One year.
" 6th " ..	Miss J. A. Stuart.....	2nd "	77 50	
" 7th " ..	Miss N. C. Reid.....	1st "	75 00	
" 8th " ..	Miss S. L. McKinnell.....	2nd "	75 00	
" 9th " ..	Miss Carrie Hall.....	3rd "	75 00	
" 10th " ..	Miss C. R. Munro.	2nd "	77 50	
Greenwood:				
High School.....	Miss C. L. Thomson, B.A..	Academic.....	125 00	S. P. Dixon, — Two years.
Central, 1st Division..	Harold Martin.....	1st Class	125 00	H. McCutcheon, *Chairman,* P. H. McCurrach, — One year.
" 2nd " ..	Miss A. L. Kerr.....	2nd "	70 00	
" 3rd " ..	Miss M. E. McArthur.....	2nd "	70 00	G. B. Taylor, *Secretary.*
Kamloops:				
High School, 1st Div..	A. F. Matthews, M.A.....	Academic.....	160 00	
" 2nd " ..	T. R. Hall, B.A.....	"	135 00	
" 3rd " ..	J. W. McNab, B.A.....	"	120 00	
Central, 1st Division..	Miss Emily Beattie..	1st Class	135 00	
" 2nd " ..	M. W. Mitchell.....	2nd "	105 00	
" 3rd " ..	Miss E. M. Chisholm.....	1st "	80 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Kamloops.—*Concluded:*				
Central, 4th Division	W. E. Graham	3rd Class	$ 85 00	W. W. Bishop, J. T. Hopgood, *Chairman*, Robert McCall, — Two years.
" 5th "	Miss A. F. Howell	2nd "	75 00	
" 6th "	Mrs. M. K. Parsons	3rd "	75 00	
" 7th "	Mrs. M. D. Bird	2nd "	75 00	Dr. J. S. Burris, Mrs. M. M. Clements, — One year.
" 8th "	Miss Isabel Crawford	2nd "	75 00	
" 9th "	Miss L. M. Taylor	2nd "	75 00	J. O. Stoodley, *Secretary*.
" 10th "	Miss E. E. Austin	2nd "	75 00	
Kaslo:				
High School, 1st Div.	S. L. Scott, B.A.	Academic	135 00	W. J. Green, — Two years.
" 2nd "	Miss Georgina Maxwell, B.A	"	100 00	
Central, 1st Division	Christopher Croft, B.A.	"	130 00	Henry Giegerich, A. T. Garland, *Chairman*, — One year.
" 2nd "	Miss Muriel Philip	2nd Class	75 00	
" 3rd "	Miss R. P. MacLeod	1st "	75 00	H. T. Whellams, *Secretary*.
" 4th "	Miss V. H. Riddell	2nd "	75 00	
Kelowna:				
High School, 1st Div.	L. V. Rogers, B.A.	Academic	140 00	
" 2nd "	Miss E. McNaughton, M.A.	"	110 00	
Central, 1st Division	James Gordon, M.A.	"	140 00	
" 2nd "	Miss Claire Caldwell, B.A.,	"	90 00	
" 3rd "	Miss Beulah Elderkin, B.A.	"	70 00	Mrs. Susan A. Calder, J. A. Bigger, *Chairman*, W. R. Trench, — Two years.
" 4th "	Miss M. G. Barnhill	1st Class	65 00	
" 5th "	Miss Muriel Page	2nd "	65 00	
" 6th "	Miss D. M. Bullock	2nd "	65 00	G. E. Ritchie, G. A. McKay, — One year.
" 7th "	Miss E. M. Thomson	3rd "	65 00	
" 8th "	Miss E. M. Davies	2nd "	60 00	N. D. McTavish, *Secretary*.
" 9th "	Miss M. E. Paton	2nd "	60 00	
" 10th "	Miss L. M. Thompson	1st "	85 00	
Manual Training Inst.	William C. Mitchell	Man. Training	.....	
Domestic Science Inst.	Miss M. C. Moule	Dom. Science	.....	
Ladysmith:				
High School, 1st Div.	H. M. Stramberg, B.A.	Academic	120 00	
" 2nd "	Miss H. A. McArthur, B.A.	"	85 00	
Central, 1st Division	Miss H. E. McNeely, M.A.	"	112 50	
" 2nd "	Miss M. F. Glen	2nd Class	75 00	Ralph Wright, James Burnes, E. D. Comley, — Two years.
" 3rd "	Miss Agnes Robertson	2nd "	63 00	
" 4th "	Miss D. G. H. Bryant	3rd "	54 00	
" 5th "	Miss K. M. Hill	3rd "	60 00	Wilfred Akenhead, *Chairman*, E. E. Pannell, — One year.
" 6th "	Miss J. C. Dunse	2nd "	54 00	
" 7th "	Miss G. C. Coulter	2nd "	54 00	Ira E. Lowe, *Secretary*.
" 8th "	Miss F. W. Clark	2nd "	54 00	
" 9th "	Miss I. S. Christie	2nd "	58 50	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Ladysmith.—*Concluded.*				
Central, 10th Division..	Miss Ethel Croston.....	2nd Class.....	$ 63 00	
" 11th " ..	Miss D. P. Coburn.....	1st "	58 50	
Merritt:				
Central, 1st Division ..	L. E. Morrissey.....	1st "	145 00	
" 2nd " ..	Miss R. M. Gregg	1st "	75 00	
" 3rd " ..	Miss H. P. Fraser.....	3rd "	65 00	Robert Strachan, Two Years.
" 4th " ..	Miss B. T. Ball.....	2nd "	65 00	Archibald Jackson, *Chairman*, Philip McLean. One Year.
" 5th " ..	Miss H. L. Currie.....	3rd "	65 00	
" 6th " ..	Miss Emelene Wilson	2nd "	65 00	Harry Priest, *Secretary*.
" 7th " ..	Miss Jennie Thompson....	2nd "	70 00	
" 8th " ..	Miss E. M. Brett.....	2nd "	70 00	
Nanaimo:				
High School, 1st Div.	D. H. Munro, B.A.....	Academic.....	99 00	
" 2nd "	Miss B. Macdonald, B.A...	"	117 00	
" 3rd "	R. M. Archer, B.A.....	"	126 00	
" 4th "	Miss E. F. Murray, B.A ...	"	99 00	
Middle Ward, 1st Div.	Miss E. E. Brown	3rd Class.....	73 00	
" 2nd "	Miss G. E. Gibson.....	3rd "	69 00	
" 3rd "	Miss Dorothea Fisher.....	1st "	61 50	
" 4th "	Miss I. S. Irvine	1st "	69 00	
Quennell, 1st Division..	J. W. Hughes,....	1st "	121 50	
" 2nd " ..	Miss L. A. Mebius.....	2nd "	90 50	
" 3rd " ..	Miss M. P. Haarer	2nd "	77 00	
" 4th " ..	Miss May Woodman.....	2nd "	73 00	
" 5th " ..	C. E. Burbridge.....	1st "	90 50	A. E. Planta,
" 6th " ..	Miss R. D. Peto.....	2nd "	50 00	Mrs. F. J. Skinner, *Chairman*, Two Years.
" 7th " ..	Miss M. L. Corbett.....	Academic.....	69 00	J. Shaw,
" 8th " ..	Miss A. V. Mills.....	"	69 00	J. W. Coburn,
" 9th " ..	Miss K. I. Parrott.....	3rd Class.....	69 00	Thos. Hodgson, One Year.
" 10th " ..	Miss May Jackson.....	2nd "	69 00	S. Gough, *Secretary*.
" 11th " ..	Miss Eleanor George	1st "	55 00	
" 12th " ..	Miss F. C. Lawrence	2nd "	69 00	
" 13th " ..	Miss Catherine Smith, B.A.	Academic.....	65 00	
" 14th " ..	Miss I. K. Haarer.....	3rd Class.....	69 00	
" 15th " ..	Miss Edith Manifold	2nd "	69 00	
" 16th " ..	Miss Jessie Mercer	2nd "	69 00	
" 17th " ..	Miss A. A. Rowa.....	3rd "	69 00	
" 18th " ..	Miss Helena Haarer.....	2nd "	69 00	
South Ward, 1st Div..	Miss Cecil McEwen	2nd "	69 00	
" 2nd " ..	Miss O. J. Rowa	2nd "	69 00	
" 3rd " ..	Miss E. H. Gardiner.....	2nd "	61 50	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

School.	Teacher.	Certificate.	Monthly Salary.	Trustees.
Nanaimo.—*Concluded:*				
Manual Training Inst..	Tom Spencer	Man. Training	$ 94 50	
Domestic Science Inst.	Miss M. G. Davidson	Dom. Science.	73 00	
Nelson:				
High School, 1st Div.	B. P. Steeves, B.A	Academic. ...	180 00	
" 2nd "	W. E. Cook, B.Sc.....	"	120 00	
" 3rd "	W. P. Freeman, B.A	"	120 00	
" 4th "	Miss Helen Steeves, B.A ..	"	95 00	
" 5th "	N. R. Fallis, B.A.....	"	120 00	
Central, 1st Division..	F. G. Calvert	1st Class.....	190 00	
" 2nd " ..	Miss E. E. Knight	2nd "	95 00	
" 3rd " ..	P. T. D. Celle.....	Academic.....	80 00	
" 4th " ..	Miss A. S. Cavers	1st Class.....	80 00	
" 5th " ..	Miss M. G. Robertson	Academic.....	80 00	A. J. Dill, Geo. Horstead, Mrs. E. A. Ross, — Two Years.
" 6th " ..	Miss M. I. Gibson	2nd Class.....	75 00	
" 7th " ..	Miss G. E. Steeves	3rd "	65 00	
" 8th " ..	Miss O. M. Bealby.....	2nd "	70 00	R. J. Joy, *Chairman*, Alfred Jeffs, — One Year.
" 9th " ..	Miss Mildred Irvine.....	2nd "	60 00	
" 10th " ..	Miss L. M. Edmondson....	2nd "	60 00	Fred. L. Irwin, *Secretary.*
" 11th " ..	Miss G. S. Annable.....	3rd "	60 00	
" 12th " ..	Miss E. M. Cawley	2nd "	75 00	
" 13th " ..	Miss Erma Ferguson	2nd "	65 00	
" 14th " ..	Miss H. J. Tait, B.A.	Academic.....	75 00	
" 15th " ..	Miss M. L. Astley	"	70 00	
" 16th " ..	Miss Annie Rath.....	2nd Class.....	70 00	
" 17th " ..	Miss M. E. Donaldson.....	1st "	65 00	
Manual Training Inst..	A. H. Webb.....	Man. Training	125 00	
Domestic Science Inst.	Miss O. E. Hayes	Dom. Science.	90 00	
New Westminster:				
Duke of Connaught High School, 1st Div.	R. A. Little, B.A.....	Academic	180 00	
" 2nd "	E. R. McMillan, M.A.....	"	150 00	
" 3rd "	G. W. MacKenzie, B.A....	"	140 00	
" 4th "	Miss Felicia Graham, M.A..	"	115 00	
" 5th "	H. I. Spurr, B.A	"	132 50	
" 6th "	A. R. Evans, B.A.....	"	120 00	
" 7th "	Miss E. M. Spurr, M.A.....	"	100 00	
" 8th "	J. G. Whiten, B.A	"	100 00	
" 9th "	Miss M. M. Cline, B.A.....	"	100 00	
" 10th "	W. E. Evans, B.A.....	"	150 00	
" 11th "	Miss E. A. R. Davies, B.A.	" ...	100 00	
F. W. Howay, 1st Div..	Lawrence Lambert, B.A...	"	135 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
New Westminster.—*Continued.*				
F. W. Howay, 2nd Div..	Miss E. M. Gray	1st Class.....	$100 00	
" 3rd " ..	Miss Margaret Wilson.....	1st "	80 00	
" 4th " ..	Miss Phyllis Dockrill.....	2nd "	60 00	
" 5th " ..	Miss Florence Eickhoff....	2nd "	65 00	
" 6th " ..	Miss B. M. Bournes	1st "	55 00	
" 7th " ..	Miss M. S. Homer.....	2nd "	80 00	
" 8th " ..	Miss Mabel Godson	2nd "	80 00	
" 9th " ..	Miss Rosa Ashburne	1st "	70 00	
" 10th " ..	Miss E. C. Street	2nd "	80 00	
Lord Kelvin, 1st " ..	Miss J. F. Rowan.....	2nd "	100 00	
" 2nd " ..	Miss Isobel Oliver.....	3rd "	70 00	
" 3rd " ..	Miss M. G. Wilkie.....	3rd "	70 00	
" 4th " .	Miss B. T. Evans.....	1st "	65 00	
" 5th " ..	Miss C. Smith (room closed)	1st "	70 00	
" 6th " ..	Miss B. J. Bowell	3rd "	65 00	
" 7th " ..	Miss A. W. McAllister.....	3rd "	80 00	
" 8th " ..	Miss J. P. Davidson.....	1st "	75 00	
Lord Lister, 1st Div..	F. O. Canfield	1st "	135 00	
" 2nd " ..	J. F. Tupper	1st "	90 00	
" 3rd " ..	Miss I. E. Ross	1st "	65 00	W. N. Bole, T. J. Lewis, Mrs. S. A. Gilley, } Two years.
" 4th " ..	Mrs. A. L. Larnder	2nd "	80 00	
" 5th " ..	Miss C. M. Rennie	2nd "	65 00	
" 6th " ..	Miss B. G. Kirkland.....	2nd "	65 00	P. A. LeBrun, P. D. McSween, T. J. Trapp, *Chairman*, C. H. S. Wade, } One year.
" 7th " ..	Miss G. E. Banford	1st "	60 00	
" 8th " ..	Miss Charlotte Smith	1st "	70 00	
Richard McBride, 1st D.	G. S. Summers	1st "	125 00	
" 2nd "	W. T. Arthurs	1st "	90 00	Robert H. Gray, *Secretary.*
" 3rd "	Miss M. B. McLean	1st "	85 00	
" 4th "	Miss E. C. Stott	1st "	80 00	
" 5th "	Miss Jean Oswald.....	2nd "	65 00	
" 6th "	Miss M. H. Anderson	2nd "	65 00	
" 7th "	Miss Gertrude Robinson...	3rd "	65 00	
" 8th "	Miss A. P. Bowell.....	2nd "	65 00	
" 9th "	Miss M. V. Wood	2nd "	85 00	
Queensborough, 1st "	Miss Beatrice Beddie	1st "	75 00	
" 2nd "	Miss Margery d'Easum	1st "	60 00	
John Robson, 1st Div..	W. C. Coatham	1st "	150 00	
" 2nd " ..	W. H. Gray	1st "	105 00	
" 3rd " ..	Miss Lena Wolfenden	1st "	70 00	
" 4th " ..	Miss M. E. Mack.....	1st "	75 00	
" 5th " ..	Miss C. E. Maxwell	2nd "	60 00	

TABLE C.—Public School Teachers and Trustees during 1961-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
New Westminster.—*Concluded.*				
John Robson, 6th Div..	Miss M. L. Derbyshire	3rd Class.....	$ 70 00	
" 7th " ..	Miss M. I. Calbick	2nd "	70 00	
" 8th " ..	Miss L. H. Hood	2nd "	55 00	
" 9th " ..	Miss G. M. Wells.....	2nd "	60 00	
" 10th " ..	Miss M. H. Winter.....	2nd "	85 00	
" 11th " ..	M. H. Clarke	1st "	85 00	
Herbert Spencer, 1st D.	W. T. Fennell	1st "	135 00	
" 2nd "	W. T. Plaxton	2nd "	90 00	
" 3rd "	Miss H. P. Davidson	1st "	70 00	
" 4th "	Miss M. R. Hood..	3rd "	65 00	
" 5th "	Miss Lila Leamy.....	2nd "	80 00	
" 6th "	Miss N. E. Dockrill	1st "	60 00	
" 7th "	Miss M. L. Abercrombie...	2nd "	80 00	
" 8th "	Miss J. M. Peebles	2nd "	75 00	
Manual Training Inst.	Wm. Nelson.....	Man. Training	130 00	
" "	William Steele.....	"	100 00	
Domestic Science Inst.	Miss K. W. MacSwain.....	Dom. Science.	90 00	
" "	Miss M. J. Govenlock	"	70 00	
Supervisor of Music...	F. T. C. Wickett.....	Music	100 00	
Phoenix:				
Central, 1st Division..	A. S. Matheson	1st Class.....	120 00	
" 2nd " ..	Miss G. E. McGeer	2nd "	75 00	W. J. Prendegast, *Secretary*, } Two years.
" 3rd " ..	Miss Julia L. Gibson	3rd "	65 00	
" 4th " ..	Miss M. E. Harrigan	3rd "	65 00	F. J. Harbinson, *Chairman*. } One year.
" 5th " ..	Miss C. E. Munro	2nd "	70 00	
Port Alberni:				
High School.....	Miss M. E. St. G. Mahaffy, [M.A.	Academic	100 00	Mrs. F. A. Bird, *Chairman*, } Two years.
Central, 1st Division..	John Barker, B.A.....	"	90 00	
" 2nd " ..	Miss A. L. Wood.....	3rd Class.....	60 00	P. R. C. Bayne, *Secretary*. } One year.
" 3rd " ..	Miss B. B. Porter.	2nd "	60 00	Mrs. E. A. Cowell.
Port Coquitlam:				
Central, 1st Division..	B. F. McLeod, B.A.....	Academic	100 00	
" 2nd " ..	Miss Ada E. Irvine.....	1st Class.....	75 00	A. W. Keith, *Chairman*, } Two years.
" 3rd " ..	Miss A. K. Chisholm.....	2nd "	65 00	James Mars, } One year.
" 4th " ..	Miss K. L. Chappell.....	2nd "	70 00	G. W. Mouldey,
James Park, 1st Div..	Mrs. E. M. Cox	1st "	80 00	C. S. F. Cox, *Secretary*.
" 2nd " ..	Miss W. E. Maxwell.....	3rd "	60 00	
Port Moody:				F. Appleyard, Two years.
Central, 1st Division..	W. G. Gamble	Academic	110 00	R. J. Thurston, } One year.
" 2nd " ..	Miss M. M. L. Johnston ...	2nd Class.....	100 00	Miss F. M. Clark, *Chairman*,
" 3rd " ..	Miss G. A. MacKenzie.....	1st "	80 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.	
Port Moody.—*Concluded:*					
Central, 4th Division	Miss Eleanor Hague	3rd Class	$ 70 00	J. J. Lye, *Secretary.*	
" 5th "	Miss Jean MacEwen	3rd "	65 00		
Prince George:					
Central, 1st Division	W. L. Hammond, B.A.	Academic	125 00	F. B. Hood, *Chairman.*	Two years.
" 2nd "	Miss Bina Brynjolfson	1st Class	95 00		
" 3rd "	Miss Eliza Milligan	2nd "	90 00	P. E. Wilson, *Secretary,*	One year.
" 4th "	Mrs. C. H. Warner	1st "	90 00	J. C. Hardy.	
Prince Rupert:					
High School, 1st Div.	J. C. Brady	Academic	165 00		
" 2nd "	Miss M. V. McLenaghen, [B.A.	"	107 08		
" 3rd "	G. B. Carpenter, B.A.	"	127 08		
Central, 1st Division	D. McD. Hunter	"	150 00		
" 2nd "	J. V. Macdonald, B.A.	"	110 00		
" 3rd "	Miss E. M. Eason	1st Class	100 00		
" 4th "	Miss J. H. MacGregor, B.A.	Academic	87 08	Mrs. E. C. Kirkpatrick,	
" 5th "	Miss E. M. Taylor	3rd Class	91 66	G. H. Munro,	Two years.
" 6th "	Miss M. A. Nickerson	1st "	87 08	L. W. Patmore,	
" 7th "	Miss I. J. W. Jenns	2nd "	97 08	Dr. W. T. Kergin, *Chairman,*	One year.
" 8th "	Miss L. E. King	2nd "	92 08	Miss R. M. Davies,	
" 9th "	Miss Genevieve Macdonald.	3rd "	82 08	W. D. Vance, *Secretary.*	
" 10th "	C. R. Murray, B.A.	Academic	125 00		
" 11th "	Mrs. E. M. Klower	2nd Class	82 08		
" 12th "	Miss J. B. Eason	3rd "	80 00		
" 13th "	Miss Belle Macleod	1st "	87 08		
" 14th "	Miss L. J. Tallander	3rd "	87 08		
Manual Training Inst.	R. H. Shockley	Man. Training	100 00		
Revelstoke:					
High School, 1st Div.	A. H. Scriven, B.A.	Academic	150 00		
" 2nd "	Miss A. W. Eaton, B.A.	"	100 00		
" 3rd "	C. E. Falkner, B.A.	"	100 00		
Central, 1st Division	J. H. Price	1st Class	125 00		
" 2nd "	Miss P. D. Faulkner	1st "	70 00		
" 3rd "	Miss E. J. Jenkins	1st "	60 00		
" 4th "	Miss M. E. Field	2nd "	60 00		
" 5th "	Mrs. M. H. Telfer	2nd "	60 00		
" 6th "	Miss A. M. Ireland	1st "	60 00		
" 7th "	Miss J. I. Hyatt.	2nd "	65 00	C. B. Hume, *Secretary,*	Two years.
Selkirk, 1st Division	Ivor Bassett	1st "	125 00	W. I. Briggs, *Chairman,*	
" 2nd "	Miss G. L. Urquhart	2nd "	70 00	W. E. Smith,	One year.
" 3rd "	Miss Ethel Blackbird	2nd "	60 00	W. O. Abrahamson,	
" 4th "	Miss Violet England	2nd "	60 00	Mrs. I. Dent.	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

School.	Teacher.	Certificate.	Monthly Salary.	Trustees.	
Revelstoke.—*Concluded:*					
Selkirk, 5th Division	Mrs. Beulah Martin	2nd Class	$ 60 00		
" 6th "	Miss B. M. Hobbs	2nd "	60 00		
" 7th "	Miss G. M. Penzer	3rd "	60 00		
" 8th "	Miss L. E. Moran	2nd "	60 00		
" 9th "	Miss Elizabeth Creelman	1st "	70 00		
Rossland:					
High School, 1st Div.	Miss L. J. Stewart, B.A.	Academic	125 00		
" 2nd "	Miss E. E. Deroche, B.A.	"	115 00		
" 3rd "	Miss C. H. Corkum, B.A.	"	115 00		
Central, 1st Division	J. C. Robson	2nd Class	150 00		
" 2nd "	Miss L. F. Jewell	2nd "	77 50		
" 3rd "	Miss H. M. Trembath	2nd "	70 00		
" 4th "	Miss A. E. Malcolm	2nd "	70 00		
" 5th "	Miss Florence McLean	3rd "	67 50	Wm. McKay, A. R. Pitt, G. W. Urquhart,	Two years.
" 6th "	Miss Myrtle Stanton	3rd "	67 50		
" 7th "	Miss G. M. York	2nd "	65 00	J. W. Junkin, R. J. Clegg, *Chairman*,	One year.
" 8th "	Miss A. E. Twaddle	2nd "	65 00		
" 9th "	Miss F. E. Allen	3rd "	67 50		
" 10th "	Miss G. F. Martin	3rd "	80 00	J. A. McLeod, *Secretary.*	
Cook Avenue, 1st Div.	J. E. Jay, B.A.	Academic	120 00		
" 2nd "	Miss M. M. Gregory	2nd Class	70 00		
" 3rd "	Miss F. J. Fraser	2nd "	70 00		
" 4th "	Miss N. C. Lingle, B.A.	Academic	70 00		
" 5th "	Miss E. S. DeBou	2nd Class	72 50		
" 6th "	Mrs. Isabel Embleton	2nd "	80 00		
Salmon Arm:					
High School	Miss Frainee Todd, B.A.	Academic	100 00	Mrs. Helen M. McGuire,	Two years.
Central, 1st Division	Miss Mary Smith	2nd Class	85 00	R. J. Glasgow, *Secretary.*	One year.
" 2nd "	Miss Gertrude Mackay	3rd "	70 00	Albert Bedford, *Chairman.*	
" 3rd "	Miss M. I. Clingan	1st "	60 00		
Sandon	T. A. McGarrigle, B.A.	Academic	95 00	D. A McClelland (Receiver).	No Trustees.
Slocan:					
Central, 1st Division	Miss I. C. Freeman, B.A.	Academic	75 00	A. E. Gage, *Secretary*,	Two years.
" 2nd "	Miss E. G. McVicar	2nd Class	70 00	W. Kirby, *Chairman*, Thos. McNeish,	One year.
Trail:					
High School, 1st Div.	George Hindle, B.A.	Academic	140 00		
" 2nd "	Miss A. J. Dick, B.A.	"	90 00		
Central, 1st Division	Miss Elizabeth Thom	2nd Class	125 00		
" 2nd "	Miss E. A. Gill	2nd "	80 00	H. Stone.	Two years.
" 3rd "	Miss J. L. Munro	2nd "	75 00		
" 4th "	Miss H. B. M. de Gagne	2nd "	75 00	F. E. Dockerill, *Secretary*, R. S. Day, *Chairman*,	One year.
" 5th "	Miss Hazel Frame	2nd "	75 00		

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Trail.—*Concluded:*				
Central, 6th Division ..	Miss E. N. Carr.....	1st Class	$ 70 00	
" 7th " ..	Miss Alice Creighton.....	1st "	75 00	
" 8th " ..	Miss J. I. MacKenzie.....	1st "	75 00	
" 9th " ..	Miss W. E. Hayes.....	1st "	80 00	
" 10th " ..	Miss M. J. Fraser.....	2nd "	70 00	
" 11th " ..	Miss V. A. Stanton.....	2nd "	70 00	
Smelter Hill....	Mrs. S. I. Simpson, B.A....	Academic.....	75 00	
Vancouver:				
Britannia, High, Prin.	T. A. Brough, B.A.....	"	230 00	
" " 1st D.	John Dunning, M.A.....	"	210 00	
" " 2nd "	Isaac Crombie, M.A.....	"	200 00	
" " 3rd "	F. J. Mayers, B.A.....	"	200 00	
" " 4th "	Miss M. E. Grenfell, B.A...	"	155 00	
" " 5th "	W. J. Fee, B.A.....	"	170 00	
" " 6th "	L. W. Taylor, B.A.....	"	203 00	
" " 7th "	Miss N. McL. Bentley, B.A.	"	150 00	
" " 8th "	Miss L. B. W. Browne, M.A	"	110 00	
" " 9th "	G. S. Selman, B.A.....	"	130 00	
" " 10th "	Miss Margt. McNiven, B.A.	"	120 00	
" " 11th "	Duncan Campbell, B.A....	"	140 00	
" " 12th "	R. B. Forsythe, B.A.....	"	140 00	
" " 13th "	Miss K. Macdiarmid, B.A..	"	110 00	
King Ed. High, Principal	S. W. Mathews, M.A.....	"	250 00	
" " 1st Div.	D. P. Johnston, B.A.....	"	210 00	
" " 2nd "	R. W. Suter, B.Sc.....	"	200 00	
" " 3rd "	D. C. Little, B.A.....	"	200 00	
" " 4th "	W. K. Beech, M.A.....	"	200 00	
" " 5th "	Miss A. B. Jamieson, B.A..	"	180 00	
" " 6th "	Miss C. A. Cameron, B.A..	"	180 00	
" " 7th "	M. B. Saunders.....	"	200 00	
" " 8th "	A. W. Ross, B.A.....	"	200 00	
" " 9th "	A. B. Maggs, B.A.....	"	190 00	
" " 10th "	William Woods, B.A.....	"	190 00	
" " 11th "	G. J. McAdam, B.A.....	"	190 00	
" " 12th "	Miss C. M. Bridgeman.....	Commercial ..	140 00	
" " 13th "	J. H. Hall, B.A.....	Academic.....	190 00	
" " 14th "	Miss W. F. Mackenzie, B.A.	"	145 00	
" " 15th "	Miss E. D. McQueen, B.A..	"	145 00	
" " 16th "	W. G. Armstrong, M.A....	"	180 00	
" " 17th "	S. L. Miller, B.A.....	"	170 00	
" " 18th "	W. H. Morrow, B.A.....	"	160 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver.—*Continued.*				
King Ed. High, 19th D.	David Ogilvie, M.A.....	Academic.....	$140 00	
" " 20th "	A. B. Tait, M.A.....	"	140 00	
" " 21st "	Miss K. H. McQueen, B.A..	"	165 00	
" " 22nd "	Miss E. M. Munn, B.A.....	"	120 00	
" " 23rd "	J. G. Gordon, M.A.....	"	140 00	
" " 24th "	J. G. Sinclair	"	185 00	
King Geo. High, 1st D.	Thomas Pattison, M.A....	"	230 00	
" " 2nd "	B. J. Wood, B.Sc.....	"	200 00	
" " 3rd "	T. H. Roberts, B.A.....	"	200 00	
" " 4th "	Miss E. B. Bell, M.A.....	"	130 00	
" " 5th "	J. R. Sanderson, M.A.....	"	150 00	
" " 6th "	S. F. Moodie, B.A.....	"	153 00	
" " 7th "	Mrs. F. A. Coombs, B.A...	"	125 00	
" " 8th "	G. A. Laing, M.A.....	"	150 00	
" " 9th "	Alex. Sutherland, M.A...	"	130 00	
" " 10th "	W. H. Webber, B.Sc.....	"	130 00	
Aberdeen, 1st Division.	Robert Sparling.....	1st Class	180 00	
" 2nd "	Miss H. B. Milne	1st "	95 00	
" 3rd "	Miss M. C. Cowie.....	2nd "	70 00	
" 4th "	Miss Jean Patterson.....	1st "	95 00	
" 5th "	Miss D. C. Eldridge.....	2nd "	95 00	
" 6th "	Miss C. E. Butler	1st "	87 50	
" 7th "	Miss J. K. Anstie..... ...	1st "	95 00	
" 8th "	Miss Elizabeth Olding.....	2nd "	100 00	
Alexandra, 1st Division.	William McDonagh.....	1st "	190 00	
" 2nd "	A. E. Shearman.....	1st "	113 00	
" 3rd "	Miss Christina Buchanan .	Academic.....	70 00	
" 4th "	Miss Agnes Macdonald	2nd Class.....	92 50	
" 5th "	Miss N. D. Evans	2nd "	70 00	
" 6th "	Miss M. A. Amos.....	2nd "	80 00	
" 7th "	Miss E. A. Clark	2nd "	70 00	
" 8th "	Miss S. W. Gray, B.A.....	Academic.....	87 50	
" 9th "	Miss I. B. Alexander	2nd Class.....	95 00	
" 10th "	Miss I. F. Carruthers.....	2nd "	80 00	
" 11th "	Miss Edith Loree	1st "	70 00	
" 12th "	Miss F. I. Donaghy.....	2nd "	60 00	
" 13th "	Miss M. M. McCarthy . ..	2nd "	60 00	
Bayview, 1st Division..	F. M. Cowperthwaite, B.A.	Academic.....	160 00	
" 2nd " ..	Miss B. A. McIntyre.....	1st Class	85 00	
" 3rd " ..	Miss P. M. Howard.....	2nd "	62 00	
" 4th " ..	Miss Nellie Bain	1st "	95 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver.—*Continued.*				
Bayview, 5th Division.	Miss J. N. Cantelon.....	1st Class.....	$ 95 00	
" 6th " ..	Miss Gertrude Warner.....	1st "	77 50	
Beaconsfield, 1st Div..	F. J. Lawrence	1st "	145 00	
" 2nd " ..	Miss J. E. McMurray.....	1st "	85 00	
" 3rd " ..	Miss E. M. Ward	2nd "	80 00	
" 4th " ..	Miss I. A. Brodie, B.A.....	Academic.....	70 00	
" 5th " ..	Miss Laura Cairns.....	2nd Class.....	82 50	
Central, 1st Division ..	W. G. Gourlie, B.A.....	Academic.....	210 00	
" 2nd " ..	J. A. Stuart, B.A.....	"	100 00	
" 3rd " ..	Miss Grace MacKenzie.....	1st Class.....	100 00	
" 4th " ..	Miss M. E. Loughead.....	1st "	85 00	
" 5th " ..	Miss G. H. Patrick.....	3rd "	60 00	
" 6th " ..	Miss Eva Cook.....	1st "	95 00	
" 7th " ..	Miss E. H. Luscombe.....	1st "	87 50	
" 8th " ..	Miss E. B. Dixon.....	1st "	85 00	
" 9th " ..	Miss Evelyn Wickett, B.A.	Academic.....	95 00	
" 10th " ..	Miss A. B. Elmsly	1st Class.....	100 00	
" 11th " ..	William Flett, M.A.....	Academic.....	100 00	
" 12th " ..	Miss A. J. Dauphinee	1st Class.....	110 00	
" 13th " ..	Miss Ruby Kerr.....	2nd "	107 50	
" 14th " ..	Miss Christine Lanoville ..	2nd "	60 00	
Children's Home, 1st D.	Miss W. A. Grant.....	2nd "	75 00	
" 2nd "	Miss Janet Sheepy.....	3rd "	95 00	
" 3rd "	Miss E. V. Hawe.....	2nd "	60 00	
" 4th "	Miss L. B. Hodgins.....	2nd "	92 50	
Dawson, 1st Division..	J. R. Pollock	1st "	203 00	
" 2nd " ..	I. M. Mullin	1st "	143 00	
" 3rd " ..	Miss Amelia Creelman, B.A.	Academic.....	100 00	
" 4th " ..	P. L. McCreery, B.A.....	"	95 00	
" 5th " ..	Miss H. L. MacDonald.....	1st Class.....	95 00	
" 6th " ..	Miss C. M. Sterns, B.A	Academic.....	87 50	
" 7th " ..	Miss E. L. Howard.....	"	75 00	
" 8th " ..	Miss E. A. LeFeuvre	1st Class.....	95 00	
" 9th " ..	Miss I. S. Fierheller.....	2nd "	87 50	
" 10th " ..	Miss Jessie McHeffey	2nd "	60 00	
" 11th " ..	Miss L. MacL. Howell, M.A.	Academic.....	67 50	
" 12th " ..	Miss B. M. Bigney	1st Class.....	82 50	
" 13th " ..	Miss L. E. Frith.....	2nd "	95 00	
" 14th " ..	Miss Rebecca Tanner.....	2nd "	95 00	
" 15th " ..	Mrs. Dorothy Johnston....	1st "	60 00	
" 16th " ..	Miss E. M. Flower.	1st "	80 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver.—*Continued.*				
Dawson, 17th Division..	Miss F. A. Chandler.....	2nd Class.....	$ 75 00	
" 18th " ..	Miss I. M. Van Blaricom, [B.A	Academic.....	100 00	
" 19th " ..	Miss J. I. Wilson.	2nd Class.....	62 50	
" 20th " ..	Miss L. I. Brundrett.....	2nd "	60 00	
" 21st " ..	Miss A. M. Lewis.....	2nd "	95 00	
" 22nd " ..	Miss L. J. U. Laursen.....	1st "	100 00	
Charles Dickens, 1st D.	H. B. Fitch, M.A	Academic.....	148 00	
" 2nd "	W. N. Kemp, B.A.....	"	95 00	
" 3rd "	Miss M. T. Batchelor.....	2nd Class.....	65 00	
" 4th "	Miss E. S. Brinton	1st "	80 00	
" 5th "	Miss B. E. Ward	1st "	87 50	
" 6th "	Miss A. M. Macphail.....	2nd "	60 00	
" 7th "	Miss S. M. Loree.....	1st "	60 00	
Fairview, 1st Division.	Angus Clark.....	1st "	210 00	
" 2nd "	S. J. Bryant.....	1st "	143 00	
" 3rd "	Mrs. Jean Templer.....	1st "	100 00	
" 4th "	Miss M. P. Sinclair.....	2nd "	95 00	
" 5th "	Miss A. M. Loggie.....	1st "	90 00	
" 6th "	Miss A. G. Perkins.....	1st "	80 00	
" 7th "	Miss M. P. Fallows.....	2nd "	70 00	
" 8th "	Miss Harriet W. Brown....	2nd "	85 00	
" 9th "	Miss K. S. Johnston	1st "	60 00	
" 10th "	Miss E. E. Fletcher	2nd "	100 00	
" 11th "	Miss D. Cowperthwaite....	2nd "	70 00	
" 12th "	Miss L. G. Bollert, B.A....	Academic.....	62 50	
" 13th "	Miss Emily Painter.....	2nd Class.....	95 00	
" 14th "	Mrs. J. P. Leach.....	1st "	95 00	
Franklin, 1st Division..	John Dunbar	1st "	143 00	
" 2nd " ..	Miss L. E. Findlay	2nd "	60 00	
" 3rd " ..	Mrs. M. M. Jarrett.....	3rd "	92 50	
" 4th " ..	Miss E. E. White	2nd "	62 50	
" 5th " ..	Miss R. A. Harvey.....	1st "	60 00	
Simon Fraser, 1st Div.	Edmund Caspell	1st "	210 00	
" 2nd "	C. W. McNeill, B.A.....	Academic.....	95 00	
" 3rd "	Miss A. R. McPherson.....	1st Class.....	95 00	
" 4th "	Miss C. H. McFarland, B.A	Academic.....	97 50	
" 5th "	Miss L. M. White, B.A	"	62 50	
" 6th "	Miss E. M. Cowan	2nd Class.....	87 50	
" 7th "	Miss M. S. Neill.....	2nd "	65 00	
" 8th "	Miss M. I. Morrison	2nd "	80 00	
" 9th "	Miss E. L. Ford.	2nd "	82 50	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver.—*Continued.*				
Simon Fraser, 10th Div.	Miss E. M. Frame.....	1st Class.....	$ 95 00	
" 11th "	Miss Clara Chadwick	1st "	95 00	
" 12th "	Miss S. H. Munro, B.A....	Academic	67 50	
" 13th "	Miss K. E. Buckerfield	2nd Class.....	60 00	
General Gordon, 1st D.	J. E. Brown, B.A	Academic	148 00	
" 2nd "	Donald McLean.....	Temporary ...	95 00	
" 3rd "	Mrs. E. B. S. Neill	1st Class.....	95 00	
" 4th "	Miss Jennie Beaty	2nd "	70 00	
" 5th "	Miss H. M. Cahill	1st "	85 00	
" 6th "	Miss Sadie Mills	1st "	85 00	
" 7th "	Miss E. M. Marshall.....	2nd "	77 50	
" 8th "	Miss M. G. McKay	2nd "	100 00	
Grandview, 1st Div..	G. H. Tom	1st "	210 00	
" 2nd " ..	James Beath	2nd "	100 00	
" 3rd " ..	Miss M. E. Maxwell.....	1st "	100 00	
" 4th " ..	Miss Minnie Taylor	1st "	75 00	
" 5th " ..	Miss J. C. Turner.....	1st "	77 50	
" 6th " ..	Miss M. A. Annand	1st "	80 00	
" 7th " ..	Miss E. M. Johnson	2nd "	80 00	
" 8th " ..	Miss E. L. George.....	2nd "	95 00	
" 9th " ..	Miss L. M. Ross.....	1st "	87 50	
" 10th " ..	Miss B. Cave-Browne-Cave	1st "	80 00	
" 11th " ..	Miss Louise Bampton	1st "	65 00	
Hastings, 1st Division	E. W. Reid, B.A.....	Academic	115 00	
" 2nd "	Clement Logan	1st Class.....	100 00	
" 3rd "	Miss M. R. MacMillan.....	2nd "	65 00	Mrs. I. H. Moody, *Chairman*, G. R. Long, T. Mathews, — Two years.
" 4th "	Miss M. R. Wilson	1st "	82 50	
" 5th "	Miss M. H. Moody, B.A....	Academic	95 00	
" 6th "	Miss A. M. Balkwill.....	2nd Class.....	87 50	J. R. Seymour, Dr. W. H. Lang, H. C. N. McKim, F. W. Welsh, — One year.
" 7th "	Miss E. H. Webber.....	2nd "	60 00	
" 8th "	Miss A. A. Eaton, B.A.....	Academic ...	82 50	
" 9th "	Miss E. L. Stewart.....	1st Class.....	92 50	
" 10th "	Miss A. I. Vermilyea, B.A.	Academic	67 50	Gerald Upton, *Secretary.*
" 11th "	Miss Z. C. Hawe	1st Class.....	60 00	
Henry Hudson, 1st D.	F. C. Wilson, B.A.....	Academic	185 00	
" 2nd "	H. L. Paget	1st Class.....	143 00	
" 3rd "	Miss G. E. MacDonald	1st "	82 50	
" 4th "	Miss G. F. Truswell.....	2nd "	67 50	
" 5th "	Miss E. A. Middlemiss	2nd "	62 50	
" 6th "	Miss E. H. Reveley	2nd "	80 00	
" 7th "	Miss G. A. Patrick.....	2nd "	62 50	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver.—*Continued.*				
Henry Hudson, 8th Div.	Miss E. B. Bate	2nd Class	$ 80 00	
" 9th "	Miss E. S. Snider	2nd "	95 00	
" 10th "	Miss Kathleen Laidlaw	2nd "	65 00	
" 11th "	Miss V. M. Brown	1st "	75 00	
" 12th "	Miss Mary Ferguson, B.A.	Academic	85 00	
Kitsilano, 1st Division	T. W. Woodhead	"	183 00	
" 2nd "	V. E. Chute, B.A	"	100 00	
" 3rd "	Miss E. M. Beckman	"	90 00	
" 4th "	Miss G. E. Stevens	1st Class	70 00	
" 5th "	Miss L. M. Simpson	1st "	82 50	
" 6th "	Miss N. T. Stables	2nd "	82 50	
" 7th "	Miss F. M. S. Howard, B.A.	Academic	85 00	
" 8th "	Miss C. E. Stewart	1st Class	80 00	
" 9th "	Mrs. E. J. Livingstone	3rd "	65 00	
" 10th "	Miss Florence McRae	2nd "	60 00	
Livingstone, 1st Div.	R. F. Coldwell, B.Sc.	Academic	140 00	
" 2nd "	B. H. Howell	"	95 00	
" 3rd "	Miss V. M. Lewis	"	60 00	
" 4th "	Miss M. E. Splan	3rd Class	77 50	
" 5th "	Miss G. I. Ward	1st "	70 00	
" 6th "	Mrs. Edith Baron	2nd "	82 50	
" 7th "	Miss A. M. McLean	2nd "	60 00	
" 8th "	Miss Marjorie Fletcher	2nd "	60 00	
Model, 1st Division	F. H. Dobson, B.A.	Academic	220 00	
" 2nd "	W. J. Nesbitt	1st Class	136 00	
" 3rd "	Miss Agnes Spencer	1st "	97 50	
" 4th "	Mrs. A. C. Huggard	1st "	100 00	
" 5th "	Miss E. L. Roberts	1st "	87 50	
" 6th "	Miss C. G. Langley	Academic	100 00	
" 7th "	Miss J. L. Campbell	1st Class	100 00	
" 8th "	Miss C. T. Murray	1st "	85 00	
" 9th "	Miss M. G. Jacks	2nd "	100 00	
" 10th "	Miss Dorothy Cattell	1st "	100 00	
" 11th "	Miss Elizabeth McDougall	3rd "	85 00	
" 12th "	Miss J. E. R. Fisher	2nd "	100 00	
Mount Pleasant, 1st D.	G. E. McKee, B.A.	Academic	210 00	
" 2nd "	W. L. Rand, B.A.	"	120 00	
" 3rd "	Miss M. E. Dewis, B.A.	"	92 50	
" 4th "	Miss B. C. Cox	1st Class	92 50	
" 5th "	Miss C. A. MacKenzie	1st "	60 00	
" 6th "	Miss E. G. B. Gibbs	3rd "	60 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver.—*Continued.*				
Mount Pleasant, 7th Div.	Miss M. A. Brockwell, B.A.	Academic.....	$ 65 00	
" 8th "	Mrs. E. C. Leith	"	95 00	
" 9th "	Miss C. I. Elliott, B.A....	"	60 00	
" 10th "	Miss G. J. MacIntosh.....	2nd Class.....	72 50	
" 11th "	Miss A. M. Fisher.....	1st "	65 00	
" 12th "	Miss S. I. Cowan.....	2nd "	95 00	
" 13th "	Miss Mabel Bower.....	2nd "	70 00	
" 14th "	Miss E. M. Pearson.....	2nd "	90 00	
" 15th "	Miss Verna McCartney....	2nd "	60 00	
" 16th "	Miss G. H. McGregor.....	2nd "	65 00	
Macdonald, 1st Div...	E. A. Hemsworth.....	1st Class.....	180 00	
" 2nd " ..	W. C. Keith, B.A.....	Academic.....	143 00	
" 3rd " ..	Miss Mary Macpherson ..	2nd Class.....	65 00	
" 4th " ..	Miss G. E. Greggs, B.A....	Academic.....	80 00	
" 5th " ..	Miss E. P. Duthie.....	2nd Class.....	60 00	
" 6th " ..	Miss R. M. Macfarlane.....	1st "	95 00	
" 7th " ..	Miss L. G. Brown.....	1st "	77 50	
" 8th " ..	Miss K. C. McLeish.....	1st "	82 50	
" 9th " ..	Miss W. F. Mellish	1st "	60 00	
Lord Nelson, 1st Div...	F. A. Jewett, B.A.....	Academic.....	193 00	
" 2nd " ..	L. B. Code, B.Sc.....	"	143 00	
" 3rd " ..	Miss J. A. Cole..	1st Class.....	100 00	
" 4th " ..	Miss A. R. Rines.....	1st "	85 00	
" 5th " ..	Miss H. E. Macleod, B.A...	Academic.....	82 50	
" 6th " ..	Miss F. B. Chapin, B.A....	"	60 00	
" 7th " ..	Miss B. M. Kelly	2nd Class.....	72 50	
" 8th " ..	Miss Hilda Crombie.....	1st "	75 00	
" 9th " ..	Miss J. M. Abel..... ...	2nd "	67 50	
" 10th " ..	Miss Elizabeth Munro.....	2nd "	67 50	
" 11th " ..	Miss G. E. Rogers, B.A....	Academic.....	67 50	
" 12th " ..	Miss Jessie Watson.....	3rd Class.....	60 00	
" 13th " ..	Miss M. E. Jukes.....	2nd "	90 00	
" 14th " ..	Miss E. G. Cameron, B.A..	Academic.....	60 00	
" 15th " ..	Miss Eva Mude	3rd Class.....	60 00	
Florence Nightingale, 1st Div...	G. W. Jamieson.....	1st "	210 00	
" 2nd " ..	S. D. Meadows, B.A.....	Academic.....	135 00	
" 3rd " ..	Miss G. A Taylor.....	"	95 00	
" 4th " ..	Miss J. J. Colter, B.A.....	"	87 50	
" 5th " ..	Miss U. F. Hall.....	1st Class.....	60 00	
" 6th " ..	Miss L. L. Close.....	1st "	85 00	
" 7th " ..	Miss F. J. Close.....	1st "	85 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver.—*Continued.*				
Florence Nightingale, 8th Div...	Miss A. E. McCallum.....	2nd Class.....	$ 95 00	
" 9th " ..	Miss E. M. Lawrence.....	2nd "	77 50	
" 10th " ..	Miss H. M. McDonald.....	2nd "	60 00	
" 11th " ..	Miss J. A. Davidson.	1st "	92 50	
" 12th " ..	Miss Sara Hewton.....	2nd "	95 00	
" 13th " ..	Miss Sara McAlpine.....	2nd "	100 00	
" 14th " ..	Miss N. A. O'Callaghan....	3rd "	60 00	
Cecil Rhodes, 1st Div.	C. R. Evans.....	1st "	200 00	
" 2nd "	Graham Bruce	1st "	118 00	
" 3rd "	Miss E. D. Perkins, B.A. ..	Academic.....	105 00	
" 4th "	Miss L. F. Davidson.....	1st Class.....	100 00	
" 5th "	Miss Edith Faunt.....	1st "	85 00	
" 6th "	Miss A. M. Sinclair, M.A...	Academic.....	95 00	
" 7th "	Miss Margaret Cattell.....	2nd Class.....	95 00	
" 8th "	Miss E. B. Murphy.....	1st "	82 50	
" 9th "	Miss F. M. Currie.....	2nd "	105 00	
Lord Roberts, 1st Div.	C. R. Messinger, B.A.....	Academic.....	118 00	
" 2nd "	H. D. Herd.....	"	180 00	
" 3rd "	Miss Eleanor Evans	1st Class.....	100 00	
" 4th "	Miss A. L. Bigney.....	1st "	100 00	
" 5th "	Mrs. J. M. H. Harding	2nd "	87 50	
" 6th "	Miss E. D. Estabrooks, B.A.	Academic.....	82 50	
" 7th "	Miss K. A. Dyke	2nd Class.....	95 00	
" 8th "	Miss A. M. Sherrin.....	1st "	95 00	
" 9th "	Miss E. L. Burpee.....	1st "	95 00	
" 10th "	Miss E. J. Laird.....	1st "	95 00	
" 11th "	Miss I. I. Haviland.....	Temporary ...	60 00	
" 12th "	Miss Annie Hughes	1st Class.....	82 50	
" 13th "	Miss E. L. Stephens.....	1st "	95 00	
" 14th "	Miss F. L. Fullerton.....	1st "	95 00	
" 15th "	Miss Christina Macdonald.	2nd "	90 00	
" 16th "	Miss N. M. Morgan.....	2nd "	62 50	
" 17th "	Miss K. E. Watson	2nd "	95 00	
" 18th "	Miss E. D. Bryant.....	2nd "	95 00	
" 19th "	Miss Edna McWhinney....	2nd "	60 00	
" 20th "	Miss A. G. B. Herd.....	3rd "	60 00	
" 21st "	Miss H. J. Blake.....	2nd "	65 00	
Laura Secord, 1st Div.	William Ramage, B.A.	Academic.....	140 00	
" 2nd "	W. R. Fleming.....	1st Class.....	100 00	
" 3rd "	Miss G. F. Jones.....	1st "	80 00	
" 4th "	Mrs. S. M. Bermingham, [B.A.	Academic.....	77 50	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver.—*Continued.*				
Laura Secord, 5th Div.	Miss M. E. Story	1st Class	$ 77 50	
" 6th "	Miss Elsie Roy	2nd "	60 00	
" 7th "	Miss Mary McKinnon	2nd "	100 00	
" 8th "	Miss Mary Gladwell, L.L.A.	Academic	75 00	
Seymour, 1st Division.	R. S. Sherman	1st Class	210 00	
" 2nd "	W. H. Brown	2nd "	95 00	
" 3rd "	Miss J. E. M. Williamson	2nd "	75 00	
" 4th "	Miss E. L. Chaster	2nd "	65 00	
" 5th "	Miss L. P. Long	1st "	80 00	
" 6th "	Miss E. C. McDonald	2nd "	95 00	
" 7th "	Miss Marietta Dorman	2nd "	60 00	
" 8th "	Miss M. C. Astle	2nd "	95 00	
" 9th "	Miss M. E. Salter	2nd "	95 00	
" 10th "	Miss Margaret Elliott	2nd "	95 00	
" 11th "	Mrs. A. G. Shine	2nd "	100 00	
" 12th "	Miss R. M. Menzies	2nd "	60 00	
" 13th "	Miss M. A. Allen	1st "	65 00	
Strathcona, 1st Div.	Alfred Rines	1st "	185 00	
" 2nd "	Miss Bessie Johnston	1st "	140 00	
" 3rd "	Mrs. M. C. Johnston	2nd "	77 50	
" 4th "	Miss E. C. Matheson	2nd "	75 00	
" 5th "	Miss A. A. McCallum	2nd "	60 00	
" 6th "	Miss B. C. A. Sanders	2nd "	60 00	
" 7th "	Miss R. L. Greggs, B.A.	Academic	65 00	
" 8th "	Miss Mabel Cairns	2nd Class	75 00	
" 9th "	Miss J. L. E. McTavish	3rd "	60 00	
" 10th "	Miss M. F. Kerr	2nd "	60 00	
" 11th "	Miss Grace Bolton, B.A.	Academic	72 50	
" 12th "	Miss E. M. Hearns	2nd Class	67 50	
" 13th "	Miss L. A. Ross	2nd "	90 00	
" 14th "	Miss Mary Truswell	1st "	95 00	
" 15th "	Miss D. G. Chandler	2nd "	72 50	
" 16th "	Miss V. M. Bissett	2nd "	60 00	
Lord Tennyson, 1st Div.	Robert Straight	1st "	203 00	
" 2nd "	W. F. Houston	2nd "	110 00	
" 3rd "	Miss A. J. G. Purdie, B.A.	Academic	85 00	
" 4th "	Miss A. M. Stiven	2nd Class	65 00	
" 5th "	Miss L. J. Brunton	2nd "	95 00	
" 6th "	Miss Emma Fessant	2nd "	70 00	
" 7th "	Miss E. J. Blair	1st "	90 00	
" 8th "	Miss J. E. Tucker	1st "	82 50	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver.—*Concluded.*				
Lord Tennyson, 9th Div.	Miss B. E. Trembath.....	1st Class.....	$ 70 00	
" 10th "	Miss M. B. Johnstone	2nd "	95 00	
" 11th "	Miss A. T. G. Reid	2nd "	85 00	
" 12th "	Miss A. M. Whitworth	2nd "	60 00	
" 13th "	Miss E. A. Carter.....	1st "	60 00	
School for the Blind...	Mrs. Thos. Burke	Special.....	49 00	
School for the Deaf, 1st Division.	F. W. Hobson	"	125 00	
Ditto 2nd "	Miss Emma Rusch	"	80 00	
Manual Training Instructors.	S. Northrop (supervisor).	Man. Training	175 00	
	F. Fairey.....	"	155 00	
	N. H. Gardner.....	"	150 00	
	H. A. Jones	"	120 00	
	J. G. Lister.....	"	175 00	
	D. P. McCallum	"	153 00	
	J. W. McAdam	"	145 00	
	A. W. Parker.....	"	150 00	
	W. Hill	"	160 00	
	Thomas Chippendale....	"	140 00	
	A. P. Tingley.....	"	120 00	
	F. W. Templer.....	"	130 00	
	Alfred Williams	"	120 00	
	E. W. Parker.....	"	150 00	
	W. A. McKeown	"	150 00	
Domestic Science Instructors.	Miss E. Berry (supervisor)	Dom. Science.	145 00	
	Miss F. Oliver	"	85 00	
	Miss M. Creelman.....	"	110 00	
	Miss M. N. Marlatt	"	90 00	
	Miss Ethel Fonda.....	"	110 00	
	Miss Elsie Stevens	"	100 00	
	Miss A. E. McEwen	"	95 00	
	Mrs. Isabel Abel	Dressmaking..	80 00	
	Miss A. M. Bell	Dom. Science.	95 00	
	Miss M. A. Rath	"	100 00	
Supervisor of Music...	G. P. Hicks	Music	150 00	
Supervisor of Primary Classes.....	Miss E. J. Trembath	1st Class.....	125 00	
Supervisor of Drill....	A. C. Bundy.....	Physical Trn'g	150 00	
Municipal Inspector of Schools	J. S. Gordon, B.A.....	Academic	300 00	
Vancouver, North:				
High School, 1st Div..	D. W. Campbell, B.A.....	Academic	200 00	
" 2nd " ..	J. V. MacLeod, B.A.....	"	160 00	
" 3rd " ..	Miss M. L. Bridgman, B.A.	"	130 00	
" 4th " ..	A. D. Hotchkiss, M.A.....	"	130 00	
Londsdale, 1st Division	D. P. Clark.....	1st Class.....	180 00	
" 2nd "	Miss L. M. Cartmell.....	2nd "	65 00	
" 3rd "	Miss E. J. McCullough....	1st "	72 50	
" 4th "	Miss M. M. Harrison	3rd "	80 00	
" 5th "	Miss G. E. Hart.....	1st "	82 50	
" 6th "	Miss Annie Harrison	3rd "	65 00	
Queen Mary, 1st Div..	J. M. Ewing.....	1st "	130 00	
" 2nd " ..	Miss N. E. Faulkner	1st "	65 00	
" 3rd " ..	Miss Ada Jeakes	1st "	80 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver, N.—*Concluded.*				
Queen Mary, 4th Div..	Miss A. F. Wilkinson.... ..	1st Class.....	$ 72 50	A. L. Clements, *Chairman*,
" 5th " ..	Miss G. A. Nutt.....	2nd "	62 50	A. G. Perry, — Two years.
" 6th " ..	Miss Winifred Corcoran ..	1st "	82 50	A. R. Steacy,
" 7th " ..	Miss E. M. McAdam	3rd "	90 00	E. R. Follick,
" 8th " ..	Miss N. F. Gilchrist.....	3rd "	75 00	M. S. McDowell, — One year.
Ridgeway, 1st Division	J. B. Bennett.....	1st "	180 00	Geo. Campbell, *Secretary.*
" 2nd "	Miss Rose McLeman	3rd "	75 00	
" 3rd "	Miss Colina Black.....	2nd "	75 00	
" 4th "	Miss V. S. Fraser	3rd "	77 50	
" 5th "	Miss F. M. Punch.....	2nd "	72 50	
" 6th "	Miss K. P. Duncan.....	1st "	60 00	
" 7th "	Miss G. H. Patrick.....	2nd "	87 50	
" 8th "	Miss L. I. Bull.....	2nd "	60 00	
Manual Training Inst.	Albert Wooldridge.....	Man. Training	150 00	
Vernon:				
High School, 1st Div..	W. H. Hudson, B.A.....	Academic.....	145 00	
" 2nd " ..	Miss C. L. Moule, B.A.....	"	100 00	
Central, 1st Division..	Harold McArthur.....	1st Class.....	130 00	
" 2nd " ..	Clarence Fulton, B.A.....	Academic.....	85 00	
" 3rd " ..	Miss Theresa Lantz	1st Class.....	90 00	
" 4th " ..	Miss A. McL. McKinnon...	2nd "	80 00	
" 5th " ..	Miss B. P. Seaton.....	2nd "	70 00	
" 6th " ..	Miss Jean Halliday.....	2nd "	70 00	J. P. Burnyeat, *Secretary*,
" 7th " ..	Miss V. B. Rabb.....	1st "	75 00	J. A. Morrison, — Two years.
" 8th " ..	Miss R. I. Elliott.....	3rd "	70 00	W. F. Kennedy,
" 9th " ..	Miss A. E. Nyman	2nd "	85 00	Joseph Harwood,
" 10th " ..	Miss Adella Whiting	3rd "	90 00	Hamilton Lang, *Chairman.* — One year.
Mason St., 1st Division	Miss E. M. Best.....	2nd "	80 00	
" 2nd "	Miss M. E. Bigland.....	1st "	75 00	
" 3rd "	Miss A. J. Perry	2nd "	65 00	
" 4th "	Miss W. A. Highman.....	2nd "	65 00	
Manual Training Inst..	Charles White	Man. Training	.....	
Domestic Science Inst.	Miss A. B. Marcellus.....	Dom. Science.	.....	
Victoria:				
High School, Principal	Alex. G. Smith, M.A.....	Academic.....	200 00	
" 1st Division	Miss J. A. Cann, B.L.....	"	135 00	
" 2nd "	E. W. Hamilton-Smith, [M.A.	"	130 50	
" 3rd "	Miss Edna Henry, M.A....	"	135 00	
" 4th "	Walter Pntnam, B.Sc.....	"	130 00	
" 5th "	Miss G. D. Burris, M.A....	" -....	135 00	
" 6th "	Frank Andrews, M.A.....	"	166 50	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Victoria.—*Continued.*				
High School, 7th Division	J. A. Armstrong, M.A.....	Academic. ...	$130 00	
" 8th "	Miss I. J. McCulloch, M.A.	"	90 00	
" 9th "	P. C. Coates, B.Sc.....	"	112 50	
" 10th "	Miss Adele Macleod, M.A..	"	121 50	
" 11th "	Miss Lyle Whelen.....	Commercial ..	108 00	
" 12th "	L. J. Cranston, B.A.....	Academic.....	125 00	
" 13th "	T. W. Cornett, B.A	"	125 00	
" 14th "	H. L. Smith, B.A	"	112 50	
" 15th "	Ira Dilworth, B.A.	"	112 50	
" 16th "	Miss J. I. Macleod, B.A....	"	90 00	
" 17th "	E. W. Clarke, B.A.....	"	153 00	
" 18th "	Miss M. E. Lehman, B.A...	"	90 00	
" 19th "	Thomas Steward, B.L.....	"	112 50	
" 20th "	R. E. Collis, B.A.....	"	112 50	
" 21st "	C. H. Haverstock, B.A....	"	112 50	
" 22nd "	Miss E. F. Roberts, L.L.A.	"	90 00	
Bank Street, 1st Div...	Miss A. M. Paterson	2nd Class.....	87 75	
" 2nd " ..	Miss M. E. Blankenbach...	2nd "	65 00	
" 3rd " ..	Miss Marjory Greig	2nd "	60 00	
" 4th " ..	Miss E. W. MacMurray....	1st "	76 50	
Beacon Hill, 1st Div...	Miss M. E. Moir.....	2nd "	58 50	
" 2nd " ..	Miss K. E. Ford.....	2nd "	58 50	
" 3rd " ..	Miss L. V. Hardie.....	3rd "	76 50	
" 4th " ..	Miss Alexandrina Russell..	1st "	99 00	
Boys' Central, 1st Div.	J. A. Cunningham.....	1st "	150 75	
" 2nd "	Miss N. L. McKillican.....	Academic.....	75 00	
" 3rd "	Miss D. E. Durick.	3rd Class.....	54 00	
" 4th "	H. W. Creelman.....	3rd "	90 00	
" 5th "	Mrs. L. B. Mackenzie.....	3rd "	81 00	
" 6th "	Miss B. J. Hinds....	1st "	60 00	
" 7th "	Miss L. M. Sylvester.....	2nd "	72 00	
" 8th "	Miss Marjorie Fox.....	1st "	54 00	
" 9th "	Miss Lilian Johnson.....	2nd "	60 00	
" 10th "	Miss Margaret Gibson	3rd "	81 00	
" 11th "	Miss S. N. King.....	2nd "	54 00	
Burnside, 1st Division.	R. L. Horning, B.A.....	Academic.....	125 00	
" 2nd "	Miss Jean Polson	1st Class.....	78 75	
" 3rd "	Miss M. F. Stewart.....	1st " . ..	54 00	
" 4th "	Miss L. O. Townsend.....	2nd "	54 00	
" 5th "	Miss E. G. Smith	2nd "	50 00	
" 6th "	Miss Kathleen Coates.....	2nd "	70 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Victoria.—*Continued.*				
Cook Street	Miss M. W. Hanna	2nd Class	$ 60 00	
Sir Jas. Douglas, 1st D.	Ernest Campbell	2nd "	150 75	
" 2nd "	Miss Jennie Thompson	1st "	76 50	
" 3rd "	Miss Sophie Hiscocks	2nd "	76 50	
" 4th "	Miss Nellie Jones	2nd "	62 50	
" 5th "	Miss A. E. Andrews	2nd "	62 50	
" 6th "	Miss B. T. Ramsay	2nd "	60 00	
" 7th "	R. S. Baker, M.A	Academic	81 00	
" 8th "	Miss Violet Watson	1st Class	54 00	
" 9th "	Miss Winifred Greig	2nd "	72 00	
" 10th "	Miss Ruth George	2nd "	72 00	
" 11th "	Miss M. H. Sanson	2nd "	50 00	
Fernwood, 1st Division	Miss Clementina German	2nd "	63 00	
" 2nd "	Miss L. M. Stiff	1st "	63 00	
Girls' Central, 1st Div.	Miss Mary Williams	1st "	128 28	
" 2nd "	Miss E. A. F. Barron	1st "	94 50	
" 3rd "	Miss S. A. Robinson	1st "	92 25	
" 4th "	Miss Ada Keast	1st "	92 25	
" 5th "	Miss W. M. Fox	1st "	65 00	
" 6th "	Miss Eunice MacNaughton	3rd "	65 00	
" 7th "	Miss M. I. Gladstone	2nd "	81 00	
" 8th "	Miss M. H. Pennington, B.A	Academic	63 00	
" 9th "	Miss M. E. Logan	1st Class	60 00	
" 10th "	Miss D. W. Sherwood	3rd "	54 00	
" 11th "	Miss F. A. Brown	1st "	76 50	
" 12th "	Miss A. L. Johnston	2nd "	81 00	
" 13th "	Miss E. L. Harris	1st "	54 00	Mrs. Margaret Jenkins,
George Jay, 1st Div.	Harry Charlesworth	1st "	140 00	Dr. A. B. Hudson, — Two years.
" 2nd "	Mrs. E. E. Menkus	1st "	87 50	P. J. Riddell,
" 3rd "	Miss E. B. Andrews	1st "	75 00	Dr. Lewis Hall,
" 4th "	Miss B. F. Westwood	2nd "	75 00	George Jay, *Chairman*, — One year.
" 5th "	Miss C. L. Harris	2nd "	67 50	C. B. Deaville,
" 6th "	Miss E. M. Dalby	2nd "	76 50	J. G. Hay,
" 7th "	Miss J. D. Ramsay	1st "	60 00	W. F. C. Pope, *Secretary.*
" 8th "	Miss F. M. McNeill	3rd "	54 00	
" 9th "	Miss L. S. Christie	2nd "	50 00	
" 10th "	Miss M. F. Norris	2nd "	54 00	
Margaret Jenkins, 1st D.	Miss A. F. Gardiner	1st "	92 25	
" 2nd "	Miss E. V. Edwards	2nd "	54 00	
" 3rd "	Miss G. Y. Pauly	Academic	55 00	
" 4th "	Miss Gertrude Field	1st Class	68 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Victoria.—*Continued.*				
King's Road, 1st Division	Mrs. A. C. Thain	2nd Class	$ 63 00	
" 2nd "	Miss Mary Lucas	2nd "	94 50	
" 3rd "	Miss Agnes Stewart	2nd "	54 00	
Kingston Street, 1st Div.	Miss K. M. Sehl	2nd "	54 00	
" 2nd "	Miss O. G. Cameron	2nd "	58 50	
" 3rd "	Miss M. S. Croft	2nd "	65 00	
" 4th "	Miss B. MacKinnon	2nd "	58 50	
" 5th "	Miss E. G. Lawson	1st "	103 50	
North Ward, 1st Division	J. M. Campbell	2nd "	150 75	
" 2nd "	Miss C. A. Dowler	1st "	94 50	
" 3rd "	Miss S. J. Murton	1st "	92 25	
" 4th "	W. D. Knott	2nd "	75 00	
" 5th "	Miss M. M. Miller	2nd "	60 00	
" 6th "	Miss B. B. Douglas	1st "	65 00	
" 7th "	Miss E. C. Cessford	3rd "	60 00	
" 8th "	Miss K. F. Ede	3rd "	54 00	
" 9th "	Miss Jennie Freeman	3rd "	67 50	
Oaklands, 1st Division	R. H. MacInnes	1st "	135 00	
" 2nd "	Mrs. G. L. Dixon	2nd "	75 00	
" 3rd "	Miss E. M. Mason	1st "	60 00	
" 4th "	Miss M. B. Hastie	2nd "	54 00	
" 5th "	Miss Helena Wheeler	3rd "	54 00	
" 6th "	Miss Mona Lane	3rd "	54 00	
" 7th "	Miss E. L. Vantreight	2nd "	67 50	
" 8th "	Miss A. E. Hendry	2nd "	76 50	
Pembroke Street	Miss Bernardine O'Keiffe	1st "	67 50	
Quadra Street, 1st Div.	A. B. McNeill	1st "	135 00	
" 2nd "	Mrs. S. A. McMartin	1st "	75 00	
" 3rd "	Miss J. M. Duncan	2nd "	72 00	
" 4th "	Ernest Butterworth	1st "	85 00	
" 5th "	Miss E. M. Leigh	2nd "	54 00	
" 6th "	Miss G. W. Hauck	2nd "	58 50	
" 7th "	Miss I. H. McIntosh	3rd "	60 00	
" 8th "	Miss M. C. Frank	2nd "	65 00	
Rock Bay	Mrs. M. Y. Wheeler (room closed)	1st "	81 00	
South Park, 1st Division	A. A. Campbell	1st "	150 75	
" 2nd "	Miss C. MacL. Long	1st "	90 00	
" 3rd "	Miss J. C. Roberts	1st "	75 00	
" 4th "	R. W. MacKenzie	1st "	80 00	
" 5th "	Miss Charlotte Stoddart	2nd "	75 00	
" 6th "	Miss J. G. Roberts	2nd "	67 50	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

City Schools.—Concluded.

SCHOOL.	TEACHERS.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Victoria.—*Concluded.*				
South Park, 7th Division	D. A. Fraser	2nd Class	$ 99 00	
" 8th "	Miss J. M. Gordon	2nd "	55 00	
" 9th "	Miss I. C. Aird	1st "	60 00	
Spring Ridge, 1st Div	Miss Isla Tuck	2nd "	87 75	
" 2nd "	Miss Margaret O'Rourke	1st "	60 00	
" 3rd "	Miss C. M. Martin	2nd "	70 00	
" 4th "	Miss M. M. Clark	2nd "	50 00	
West, 1st Division	J. F. Salloway	1st "	150 75	
" 2nd "	W. H. Gee	Temporary	100 00	
" 3rd "	Miss M. A. B. Pope	2nd Class	87 50	
" 4th "	Miss N. M. Rigby	2nd "	54 00	
" 5th "	Miss Evelyn LeClercq	1st "	63 00	
" 6th "	Miss L. A. Carson	2nd "	54 00	
" 7th "	Miss V. M. Davies	2nd "	54 00	
" 8th "	Miss D. A. Fox	1st "	60 00	
" 9th "	Miss V. M. Walker	2nd "	54 00	
" 10th "	Miss A. N. Anderson	2nd "	76 50	
Child Study Laboratory	Miss Bertha Winn	Special	125 00	
Manual Training Instructors.	W. H. Binns (Supervisor)	Man. Training	150 75	
	F. W. Ball	"	85 00	
	George Anstey	"	110 00	
	G. F. Murray	"	117 00	
	D. S. Cameron	"	117 00	
	A. H. Marrion	Temporary	100 00	
Domestic Science Instructors.	Miss A. B. Juniper (Sup.)	Dom. Science.	108 00	
	Miss B. LaRita Bent	"	67 50	
	Miss F. W. Manual	"	67 50	
	Miss Mabel Wright	"	67 50	
	Miss Winifred Baker	"	67 50	
	Miss A. A. Boorman	"	99 00	
Physical Training Instructors.	Ian St. Clair		90 00	
	Miss Ruth Jarvis		67 50	
	S. S. Hutchinson		75 00	
Supervisor of Drawing	Miss L. M. Mills	Drawing	108 00	
Supervisor of Music	H. J. Pollard	Music	108 00	
Municipal Inspector of Schools	E. B. Paul, M.A.	Academic	225 00	
Normal School, Victoria:				
Model School, 1st Div.	Miss Kate Scanlan	2nd Class	135 00	
" 2nd "	Miss I. M. F. Barron	2nd "	100 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.

School.	Teacher.	Certificate.	Monthly Salary.	Trustees.
Burnaby:				
Armstrong Avenue	Miss C. L. Brown	2nd Class	$ 70 00	
Barnet	Miss R. R. Graham	2nd "	70 00	
Douglas Road	G. K. Sangster	3rd "	70 00	
Edmonds St., 1st Div.	Norman Morrison	2nd "	125 00	
" 2nd "	J. C. Glass	2nd "	100 00	
" 3rd "	Miss H. F. Crake	2nd "	85 00	
" 4th "	Miss L. C. E. MacKenzie	2nd "	75 00	
" 5th "	Miss A. S. Corbett	2nd "	70 00	
" 6th "	Miss P. E. S. Fetherston-[haugh	2nd "	70 00	
" 7th "	Miss E. M. Crake	2nd "	75 00	
Gilmore Ave., 1st Div.	S. J. Griffiths	1st "	140 00	
" 2nd "	Miss M. M. Scott	3rd "	100 00	
" 3rd "	H. C. Etter	2nd "	70 00	
" 4th "	Miss A. E. O'Dwyer	2nd "	70 00	
" 5th "	Miss E. M. Keast	2nd "	80 00	
" 6th "	Miss H. R. Russell	2nd "	75 00	
" 7th "	Miss Kate Simmonds	2nd "	70 00	
" 8th "	Miss E. M. Muir	3rd "	75 00	
Hamilton Road	E. I. Cantell	2nd "	70 00	
Howard Ave.	Miss I. J. Herd	3rd "	70 00	Wm. Coulter, Wm. George, — Two years.
Inman Avenue, 1st Div.	Miss E. F. Crake	2nd "	100 00	
" 2nd "	Miss J. E. Gray	3rd "	70 00	J. M. Murray, *Chairman*, W. Robertson, F. J. Russell, — One year.
Kingsway, East, 1st Div.	Miss M. A. Gray	2nd "	90 00	
" 2nd "	Miss G. J. May	3rd "	75 00	
Kingsway, West, 1st Div.	P. S. Smith	1st "	125 00	W. E. Andison, *Secretary*.
" 2nd "	A. E. Richards	2nd "	85 00	
" 3rd "	Miss M. C. Morrow	2nd "	75 00	
" 4th "	Miss F. M. Banks	2nd "	70 00	
" 5th "	Miss G. P. Smith	1st "	65 00	
" 6th "	Miss R. B. Luno	3rd "	70 00	
" 7th "	Miss A. T. Forrest	2nd "	95 00	
Nelson Ave., 1st Division	D. H. H. Lowther	1st "	115 00	
" 2nd "	Miss A. L. E. Fowler	3rd "	70 00	
" 3rd "	Miss Florrie Anderson	1st "	80 00	
Riverway, East, 1st Div.	Miss J. M. McKenzie, B.A.	Academic	85 00	
" 2nd "	Miss I. H. Kirby	2nd Class	75 00	
Schou St., 1st Division	Miss M. E. Brundrett	2nd "	85 00	
" 2nd "	Miss R. I. Leavens	3rd "	75 00	
Second Street	Miss F. A. Brice	2nd "	70 00	
Sperling Avenue	A. J. McKenna, B.A.	Academic	75 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.	
Burnaby.—*Concluded.*					
Manual Training Inst.	G. W. Sievers	Man. Training	$150 00		
Domestic Science Inst.	Miss A. M. S. Boe	Dom. Science	85 00		
Chilliwack:					
Atchelitz, 1st Division	Wm. Robertson	2nd Class	80 00		
" 2nd "	Miss M. A. Macdonald	3rd "	65 00		
" 3rd "	Miss M. E. Milley	3rd "	60 00		
Camp Slough, 1st Div.	Miss M. E. Jackson	1st "	70 00		
" 2nd "	Miss N. M. Stuart	3rd "	65 00		
Cheam, 1st Division	J. M. Orr	2nd "	70 00		
" 2nd "	Miss Alice Anderson	2nd "	60 00		
Chilliwack, East, 1st Div.	Miss E. H. Brannick	2nd "	70 00		
" 2nd "	Miss E. P. Newby	2nd "	60 00		
Fairfield Island	Miss H. Z. Munro	3rd "	60 00		
Lotbiniere, 1st Division.	Miss I. B. Bond	2nd "	70 00	C. H. Evans, Chas. Kerr,	Two years.
" 2nd "	Miss E. R. Skea	3rd "	60 00		
Parson's Hill	Miss C. M. Bailey	2nd "	55 00	J. C. Robertson, *Chairman*, Jas. Bailey, John Macfarlane,	One year.
Promontory Flats	Miss T. R. Grafton	2nd "	55 00		
Rosedale, 1st Division	G. S. Ford	2nd "	80 00		
" 2nd "	Miss Eleanor Bradley	2nd "	70 00	C. H. Webb, *Secretary*.	
" 3rd "	Miss B. N. Smith	2nd "	60 00		
Sardis, 1st Division	Wm. Quigley, B.A.	Academic	80 00		
" 2nd "	Miss A. M. Thomas	2nd Class	60 00		
" 3rd "	Miss Gertrude Cartmell	2nd "	65 00		
Strathcona, 1st Division	Miss A. E. Imlah	2nd "	70 00		
" 2nd "	Miss Ellen O'Hearn	3rd "	60 00		
Sumas	Miss A. H. Taylor	2nd "	55 00		
Vedder Creek	Miss Clara Johnston	2nd "	55 00		
Yarrow	Miss C. E. Minckler	2nd "	55 00		
Manual Training Inst.	J. W. Bennett	Man. Training	125 00		
Coldstream:					
Coldstream	Miss R. O. Stewart, B.A.	Academic	85 00	W. E. Stephens, *Chairman*, E. K. Applegarth,	Two years.
Lavington	Miss D. F. L. Debney	3rd Class	65 00	E. S. Craster, B. C. S. Turner, R. W. Paton, *Secretary*,	One year.
Coquitlam:					
Blue Mountain, 1st Div.	Miss E. O. Robertson	2nd "	70 00		
" 2nd "	Miss M. I. Anderson	1st "	65 00	A. Brehaut, *Chairman*. W. H. Neelands,	Two years.
Coquitlam, East	Miss M. F. Lang	3rd "	65 00		
Glen	Miss Isobel Bolton	2nd "	70 00	R. Morrison, *Secretary*, J. Foster, W. Whiting,	One year.
Millside, 1st Division	Miss F. E. Cather	2nd "	70 00		
" 2nd "	Miss F. S. Hailey	2nd "	65 00		
Silver Valley	Miss Mabel Bowden	3rd "	65 00		

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Cowichan, North:				
Chemainus Ldg., 1st D.	George Nutt	1st Class	$ 90 00	
" 2nd "	Miss M. M. Beattie	2nd "	65 00	Peter Boudat, } Two years.
" 3rd "	Miss Annie Wilson	1st "	60 00	W. H. Mahon, }
Crofton	Miss M. A. MacDonald	1st "	80 00	Wm. Dwyer, *Chairman*, }
Maple Bay	Miss M. S. Hardwick	Academic	60 00	W. H. Elkington, } One year.
Quamichan	Miss Marjorie Bonsall	2nd Class	70 00	P. W. A. Jones, }
Somenos	Miss L. E. Parlett	3rd "	60 00	J. W. Dickinson, *Secretary*.
Somenos Station	Miss M. V. Colbert	3rd "	60 00	
Westholme	Miss C. F. MacKenzie	1st "	70 00	
Delta:				
Annieville	Miss Annie Fenton	3rd "	75 00	
Boundary Bay	Miss Esther Love	2nd "	65 00	
Canoe Pass	Miss D. A. Oliver	3rd "	75 00	
Delta, East	Miss G. M. Hinsley	2nd "	70 00	
Inverholme	Miss May Martin	2nd "	56 65	
Ladner, High, 1st Div.	E. H. Lock, B.A	Academic	130 00	W. R. Ellis, } Two years.
" 2nd "	Miss Mary Fingland, B.A.	"	85 00	David Price, }
Ladner, 1st Division	F. H. Halstead	Temporary	100 00	A. de R. Taylor, *Secretary*. }
" 2nd "	J. G. Third	3rd Class	85 00	George London, } One year.
" 3rd "	Mrs. J. M. Hutchison	3rd "	75 00	Smith Wright, *Chairman*, }
" 4th "	Miss D. L. Cook	2nd "	75 00	
Sunbury	Miss O. M. Alexander	2nd "	56 65	
Trenant	Mrs. C. Streeter	1st "	56 65	
Westham Island	Miss G. M. Devereaux	3rd "	65 00	
Manual Training Inst.	Albert Cantell	Man. Training	.....	
Domestic Science Inst.	Miss Margaret McDougall	Dom. Science	.....	
Esquimalt:				
High School, 1st Div.	J. M. Paterson, B.A	Academic	150 00	
" 2nd "	Miss C. N. Burridge, B.A.	"	110 00	
Esquimalt, 1st Division	William Stacey	1st Class	150 00	
" 2nd "	Arnold Francis	2nd "	100 00	
" 3rd "	Miss Maude Knappett	2nd "	80 00	
" 4th "	Miss C. P. McKinnon	Academic	65 00	
" 5th "	Miss H. G. Morley	1st "	65 00	Bert Mantrop, } Two years.
" 6th "	Miss D. F. Boyden	1st "	65 00	A. W. Greaves, }
" 7th "	Miss E. B. McKeil	2nd "	70 00	Capt. A. Mulcahy. *Secretary*, }
" 8th "	Miss A. W. Johnson	1st "	65 00	Leonard Tait, *Chairman*, } One year.
" 9th "	Miss Donalda McKay	3rd "	65 00	W. W. Wilson, }
" 10th "	Miss Louisa Severs	3rd "	65 00	
" 11th "	Miss P. E. Spragge	1st "	65 00	
" 12th "	Miss Florence Smith	2nd "	70 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Esquimalt.—*Concluded.*				
Esquimalt, 13th Division	Miss M. T. Morrison.....	2nd Class.....	$ 60 00	
" 14th "	Miss E. M. Hardie	2nd "	70 00	
Manual Training Inst.	F. Waddington	Man. Training	125 00	
Domestic Science Inst.	Miss A. C. Mackinnon.....	Dom. Science.	65 00	
Kent:				
Agassiz High School	Miss E. P. Taylor, M.A ...	Academic.....	100 00	
Agassiz, 1st Div.	Miss O. E. J. Cousins, B.A.	"	70 00	Thos. Hardy, Howard Sutherland, — Two years.
" 2nd "	Miss R. E. Smith.....	2nd Class.....	65 00	
" 3rd "	Miss V. B. Macdonald.....	Temporary . .	70 00	J. A. H. Morrow, *Chairman*, J. A. McRae, A. C. Webster, *Secretary*, — One year.
Harrison Hot Springs...	Miss P. L. McKay.....	2nd Class.....	55 00	
Harrison River	Miss Jessie MacIntosh.....	3rd "	65 00	
McBride.....	Miss R. E. Hogg.....	3rd "	55 00	
Langley:				
Aldergrove, 1st Division.	Miss E. M. Smith	2nd "	75 00	
" 2nd "	Miss C. B. McInnes	3rd "	65 00	
Beaver	Miss R. V. Hector	2nd "	65 00	
Belmont, 1st Div. (Sup).	P. H. Sheffield.....	1st "	110 00	
" 2nd "	Miss R. S. Gilley.....	1st "	75 00	
" 3rd "	Miss M. G. Stein.....	3rd "	65 00	
Glen Valley.....	Miss C. L. MacLeod.....	3rd "	65 00	
Glenwood	Miss Helen Freeman	2nd "	65 00	
Langley, 1st Division ...	Miss J. D. Forrester ...	2nd "	75 00	J. W. Berry, *Chairman*, T. W. Ormond, — Two years.
" 2nd " ...	Miss M. L. Traves.....	2nd "	65 00	
" 3rd " ...	Miss M. E. Coulter.....	3rd "	65 00	R. J. Wark, D. W. Poppy, David Harris, — One year.
Langley, East	Miss R. E. Agar.....	2nd "	65 00	
Langley Prairie, 1st Div.	J. A. Chambers.....	2nd "	75 00	
" 2nd "	Miss H. F. Gilley.....	2nd "	70 00	F. Macpherson, *Secretary*.
Langley, West.....	Miss E. F. Forey.....	3rd "	65 00	
Lochiel.....	Miss Nellie Green.....	2nd "	65 00	
Milner, 1st Division	Miss B. E. Rowan.....	2nd "	75 00	
" 2nd "	Miss Marion Blacklock	2nd "	65 00	
Otter	G. F. Hagelstein.....	3rd "	65 00	
Patricia	Mrs. L. L. Odlum.....	3rd "	65 00	
Springbrook.....	Miss L. M. Lane, B.A.....	Academic.....	65 00	
Maple Ridge:				
Albion	Mrs. S. E. Parton.....	3rd Class.....	65 00	
Hammond, 1st Division .	Miss N. W. Laycock	1st "	75 00	
" 2nd " .	Miss F. M. Kent.....	3rd "	60 00	
Haney, 1st Div., (Sup.).	Miss Margaret Reid, M.A..	Academic.....	100 00	
" 2nd "	Miss Gertrude O'Sullivan..	3rd Class.....	65 00	
" 3rd "	Miss E. L. Berry.....	2nd "	60 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.	
Maple Ridge.—*Concluded.*					
Lillooet, South	Miss J. J. Anderson, B.A.	Academic	$ 65 00	Alex. Gilchrist, *Chairman*, W. Purdy,	Two years.
Maple Ridge, 1st D. (Sup.)	Miss M. W. Robertson	1st Class	100 00		
" 2nd "	Miss E. A. Robinson	3rd "	75 00	A. H. Anderson, G. O. Buchanan, Leonard Platt, *Secretary*,	One year.
" 3rd "	Miss Alma Hampton	3rd "	60 00		
Alex. Robinson, 1st Div.	Miss A. J. McDougall	2nd "	75 00		
" 2nd "	Miss O. M. Blake	3rd "	60 00		
Ruskin, 1st Division	A. M. Maxwell, B.A.	Academic	75 00		
" 2nd "	A. R. Fraser	3rd Class	60 00		
Webster's Corners	Miss J. E. Smith	2nd "	65 00		
Whonnock, 1st Division	Mrs. J. S. Drummond, M.A	Academic	75 00		
" 2nd "	Miss M. A. Gaunt	3rd Class	60 00		
Manual Training Inst.	A. W. Jones	Man. Training			
Matsqui:					
Aberdeen	Miss A. M. Reid	2nd Class	60 00		
Bradner, 1st Division	Nicholas Auburn	1st "	80 00		
" 2nd "	Miss N. E. Green	2nd "	60 00		
Clayburn, 1st Division	Miss M. O. Snider	2nd "	65 00		
" 2nd "	Miss Catherine Goodchild	3rd "	55 00		
Dunach	Miss M. B. Oliver	3rd "	60 00		
Glenmore	Miss M. H. C. Hooper	2nd "	60 00	A. O. Hougen, C. T. Purver,	Two years.
Jubilee	Miss M. I. Dorer	2nd "	55 00		
Matsqui, High, 1st Div.	Miss E. L. Shaw, B.A.	Academic	105 00	Patrick Conroy, Geo. F. Pratt, Frank Wooler, *Chairman*,	One year.
" 2nd "	Miss J. L. M. MacNaughton, [B.A.	"	80 00		
Matsqui, 1st Div.	Miss Ancilla Stewart	1st Class	75 00		
" 2nd "	Miss Thelma Nelson	2nd "	55 00	Wm. Merryfield, *Secretary*.	
Mount Lehman, 1st Div.	Miss Tannis Reid, B.A.	Academic	80 00		
" 2nd "	Miss D. E. K. Jones, B.A.	"	70 00		
Peardonville	Miss M. O. Carter	1st Class	65 00		
Poplar	Miss R. A. Lancaster	2nd "	55 00		
Ridgedale, 1st Division	Miss Edith Sidney	2nd "	65 00		
" 2nd "	Miss A. C. Page	2nd "	55 00		
Mission:					
Ferndale	Miss E. M. Laxton	3rd "	60 00		
Hatzic, 1st Division	Miss Alice McEwen	2nd "	70 00		
" 2nd "	Miss A. E. Cox	3rd "	60 00	J. A. Lampard, *Secretary*, J. B. Cade,	Two years.
Mission High, 1st Div.	Miss G. J. Baker, B.A.	Academic	110 00		
" 2nd "	Miss A. S. Mackenzie, B.A.	"	100 00	Mrs. L. J. Solloway, Mrs. Middleton, E. P. Ferguson, *Chairman*,	One year.
Mission City, 1st Division	D. M. Moore	2nd Class	110 00		
" 2nd "	Miss H. K. Whistler	2nd "	65 00		
" 3rd "	Miss C. E. Murray	1st "	70 00		
" 4th "	Miss E. A. Catherwood	3rd "	65 00		

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.	
Mission.—*Concluded.*					
Mission City, 5th Div....	Miss Madge Portsmouth...	2nd Class.....	$ 65 00		
Silverdale	Miss Marie Verchére.....	3rd "	60 00		
Silverhill	Miss F. E. Verchére.....	3rd "	55 00		
Stave Falls	Miss D. L. Laxton.....	2nd "	55 00		
Stave Gardens.....	Mrs. R. L. Paterson.....	3rd "	55 00		
Steelhead	Miss Z. K. Topper.....	2nd "	55 00		
Manual Training Inst.	A. W. Jones	Man. Training	79 00		
Domestic Science Inst.	Miss M. J. Courtney.....	Dom. Science.	73 00		
Oak Bay :					
High, 1st Division.....	H. P. Hope, B.A.....	Academic.....	170 00		
" 2nd "	F. W. Harvey, M.A.....	"	140 00		
Monterey, 1st Division..	W. E. Hoadley.....	1st Class	130 00		
" 2nd " ..	Miss Isabel Cathcart	2nd "	90 00		
" 3rd " ..	Miss M. E. Bailey.....	2nd "	67 50		
" 4th " ..	Mrs. Lydia White.....	3rd "	55 00	P. S. Lampman, *Chairman*,	Two years.
" 5th " ..	Miss M. E. O'Brien.....	3rd "	55 00	Thos. Ashe,	
" 6th " ..	Mrs. Nancy Clough.....	1st "	67 50	Edwin Tomlin,	One year.
" 7th " ..	Miss A. B. Roberts.....	1st "	67 50	E. C. Hayward,	
" 8th " ..	Miss A. V. Wollaston.....	2nd "	60 00	H. F. Hewitt, *Secretary*,	
Willows, 1st Division....	Mrs. A. L. Rhodes.....	2nd "	72 00		
" 2nd "	Miss M. R. McGillivray....	2nd "	60 00		
" 3rd "	Miss A. M. Brown	2nd "	60 00		
" 4th "	Miss A. B. Cooke.....	2nd "	55 00		
Manual Training Inst..	Fred. Wilcock	Man. Training	75 00		
Peachland :					
Peachland High	Miss Jean Robinson, B.A..	Academic.....	100 00	Alfred Town, *Chairman*,	Two years.
Peachland, 1st Division.	Miss E. I. Pentland.....	1st Class	80 00	Hugh Williams,	
" 2nd "	Miss A. E. Elliott.....	1st "	65 00	John Drought,	One year.
Trepanier	Miss F. L. Whitworth.....	3rd "	60 00	R. H. Huston, R. J. Hogg, *Secretary*,	
Penticton :					
High, 1st Division.....	C. S. Dobbins, B.A.....	Academic.....	150 00		
" 2nd "	L. J. Miller, B.A.....	"	100 00		
Ellis, 1st Division.....	T. H. Calder, M.A.....	"	135 00	Mrs. Chas. Greer,	Two years.
" 2nd "	Miss M. K. Currie.....	1st Class	80 00	N. F. Tunbridge,	
" 3rd "	Miss I. R. Hartinger	2nd "	80 00	G. A. B. MacDonald,	
" 4th "	Mrs. Mabel Shaw.....	2nd "	70 00	R. H. Weeks, *Chairman*,	One year.
" 5th "	Miss O. B. Gummow	2nd "	70 00	W. A. McKenzie, *Secretary*,	
" 6th "	Miss M. A. Offerhaus.....	2nd "	65 00		
" 7th "	Miss C. D. Y. Pitblado, [L.L.A.	Academic.....	80 00		
" 8th "	Miss B. M. Gilley.....	2nd Class.	70 00		
" 9th "	Miss I. A. H. Huntley.....	3rd "	70 00		

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Penticton.—*Concluded.*				
Ellis, 10th Division	Miss M. E. Moser	2nd Class	$70 00	
Poplar Grove	Miss F. E. McDonald	2nd "	65 00	
Manual Training Inst.	W. C. Mitchell	Man. Training	155 00	
Domestic Science Inst.	Miss M. C. Moule	Dom. Science.	130 00	
Pitt Meadows:				F. V. Harris, *Secretary*, } Two years.
Pitt Meadows	R. E. Sisson	1st Class	75 00	R. H. Sharpe, *Chairman*, } Two years.
Richardson	L. G. Baker	2nd "	70 00	Frank Baynes, John Spence, P. S. Herring. } One year.
Point Grey:				
King George, High, 1st D.	E. T. Oliver, B.A.	Academic	130 00	
" " 2nd "	Miss C. G. Campbell, B.A.	"	130 00	
" " 3rd "	Allan Bowles, B.A.	"	200 00	
" " 4th "	W. J. Lloyd, B.A.	"	130 00	
" " 5th "	N. E. Carter	Commercial	130 00	
Eburne, 1st Division	A. M. McDonald	1st Class	150 00	
" 2nd "	Miss Florence Mulloy	2nd "	85 00	
" 3rd "	Miss Minnie Grant	1st "	70 00	
" 4th "	Miss J. M. McDonald	3rd "	70 00	
" 5th "	Miss M. K. Cameron	3rd "	70 00	
" 6th "	Miss M. F. McCorkell	3rd "	70 00	
" 7th "	Miss H. M. Buckerfield	2nd "	75 00	
Kerrisdale, 1st Division	Miss E. B. Park	2nd "	130 00	
" 2nd "	P. C. Feast	3rd "	75 00	
" 3rd "	Miss H. M. Smith	2nd "	85 00	
" 4th "	Miss C. H. Anderson	3rd "	75 00	
" 5th "	Miss H. C. Allan	2nd "	70 00	
Lord Kitchener, 1st Div.	B. E. Harvey	1st "	125 00	Capt. W. F. Stewart, } Two years.
" 2nd "	Miss A. M. Fraser	3rd "	70 00	H. O. McDonald, *Chairman*, } Two years.
" 3rd "	Mrs. F. P. Hart, B.A.	Academic	70 00	
Magee, 1st Division	Hugh McDonald	1st Class	125 00	A. M. Stewart, } One year.
" 2nd "	Miss M. C. Honeyman	2nd "	70 00	Frank Burnett, Sr., } One year.
" 3rd "	Miss Mabel Fessant	2nd "	70 00	Donald Smith, } One year.
Queen Mary, 1st Div.	H. E. Patterson	1st "	125 00	Frank Peace, *Secretary*.
" 2nd "	Miss Jessie Porter	1st "	75 00	
" 3rd "	Miss G. C. Schwesinger, [B.A.	Academic	70 00	
" 4th "	Miss L. M. Simpson	1st Class	70 00	
" 5th "	Miss A. C. Russell	2nd "	75 00	
Shaughnessy, 1st Div.	C. H. Gray	1st "	140 00	
" 2nd "	Miss Elizabeth MacKenzie	1st "	90 00	
" 3rd "	Miss Marguerite Mackay	3rd "	70 00	
" 4th "	Miss J. M. McKay	3rd "	75 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Point Grey.—*Concluded.*				
Shaughnessy, 5th Div...	Miss E. J. Carlisle.....	3rd Class.....	$70 00	
" 6th " ..	Miss H. M. Hesson.....	2nd "	85 00	
Manual Training Inst...	J. W. Parker.....	Man. Training	100 00	
" ...	T. H. Dodson.	"	100 00	
Domestic Science Inst...	Miss I. F. McKay (Sup)....	Dom. Science.	85 00	
" ...	Miss N. W. Spencer, B.A..	"	75 00	
Richmond:				
Bridgeport, High, 1st D.	J. I. MacIntosh, B.A.	Academic.....	185 00	
" " 2nd "	Miss E. J. Maycock, M.A..	"	120 00	
" " 3rd "	Miss I. E. Clemens, B.A...	"	100 00	
Bridgeport, 1st Division.	Miss K. M. McNeely.....	2nd Class.....	110 00	
" 2nd "	Mrs. E. P. Duncan, B.Sc..	Academic.....	80 00	
" 3rd "	Miss Helena Estabrooks, [B.A.	"	80 00	
" 4th "	Miss Mona Mude.....	2nd Class.....	75 00	Mrs. H. T. Ewin, *Secretary*, J. H. Bath, } Two years.
" 5th "	Miss J. M. McMyn.....	3rd "	65 00	
English, 1st Division....	Miss E. M. Lyness.....	2nd "	75 00	Thos. Laing, *Chairman*, Henry Fentiman, M. F. Miller, } One year.
" 2nd "	Miss E. R. Miller.....	2nd "	70 00	
Lulu	Henry Bayley.....	1st "	75 00	
Mitchell	Miss M. A. Ramsay.....	3rd "	75 00	
Steveston, 1st Division..	Miss M. J. Crawford.....	2nd "	90 00	
" 2nd " ..	Miss M. O. Buckingham...	3rd "	65 00	
" 3rd " ..	Miss L. M. Marshall.....	3rd "	70 00	
Trites	Miss I. A. Rees.....	2nd "	65 00	
Manual Training Inst.	Albert Cantell	Man. Training	109 33	
Domestic Science Inst.	Miss Margaret McDougall..	Dom. Science.	94 33	
Saanich:				
Cadboro Bay	Miss M. B. Lehman	2nd Class.....	63 00	
Cedar Hill, 1st Division..	Miss Blanche Alward.....	1st "	81 00	
" 2nd " ..	Miss M. A. Irvine	2nd "	67 50	
" 3rd " ..	Miss E. J. Jarvis.....	1st "	58 50	
Craigflower, 1st Division	Miss M. A. Johnson	2nd "	90 00	
" 2nd "	Miss G. M. Ledingham	3rd "	72 00	
" 3rd "	Miss Mary Robertson.....	1st "	63 00	
" 4th "	Miss V. A. Harman.....	Academic.....	58 50	
Gordon Head, 1st Div...	Miss M. C. Harman	2nd Class.....	72 00	
" 2nd " ..	Miss Helen McNaughton ..	2nd "	58 50	
Keating, 1st Division ...	Miss Nadine Berton.....	2nd "	72 00	
" 2nd " ...	Miss Mildred McKenzie....	3rd "	58 50	
MacKenzie Ave., 1st Div.	J. O. Welch.....	1st "	100 00	
" 2nd "	Miss Annie Yuill	1st "	67 50	
" 3rd "	Miss M. P. Kinnaird	1st "	54 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Saanich.—*Concluded.*				
MacKenzie Ave., 4th Div.	Mrs. A. W. Hume	3rd Class	$ 58 50	
North Dairy, 1st Division	Mrs. A. E. Alderson	1st "	81 00	
" 2nd "	Miss M. K. Offerhaus	2nd "	67 50	
" 3rd "	Miss J. E. Dunnett	2nd "	54 00	J. L. Brooks, *Chairman*, Geo. McGregor, — Two years.
Prospect Lake	Miss M. V. Bradshaw	2nd "	63 00	
Royal Oak, 1st Division.	Miss R. M. Hume	1st "	72 00	G. F. Watson, Mrs. M. M. Hutchinson, G. E. Davidson, — One year.
" 2nd "	Miss J. V. Bruskey	Academic	58 50	
Saanichton, 1st Division.	Miss K. C. Halliday	1st Class	72 00	
" 2nd "	Miss J. E. Anderson	2nd "	54 00	H. S. Cowper, *Secretary.*
Saanich, West, 1st Div.	Miss M. C. Bissett	2nd "	72 00	
" 2nd "	Miss Mary MacKinnon	3rd "	54 00	
Strawberry Vale, 1st Div.	Miss M. J. Ozard	1st "	72 00	
" 2nd "	Miss J. D. Brydon	3rd "	58 50	
Tillicum Road	Miss G. N. Hewlings, B.A.	Academic	63 00	
Tolmie, 1st Division	John O'Neill	1st Class	135 00	
" 2nd "	Wm. O'Neill	1st "	90 00	
" 3rd "	Miss A. C. Main	3rd "	67 50	
" 4th "	Miss I. H. Gordon	2nd "	54 00	
" 5th "	Miss F. J. Mann	3rd "	58 50	
" 6th "	Mrs. Jane Darbyshire	3rd "	63 00	
" 7th "	Miss E. M. Beane	2nd "	63 00	
" 8th "	Miss A. C. Corry, B.A.	Academic,	54 00	
" 9th "	Miss E. M. Harte	3rd Class	54 00	
" 10th "	Miss M. G. Service	2nd "	54 00	
" 11th "	Miss F. E. Perry	3rd "	58 50	
" 12th "	Miss B. M. Millins	1st "	75 00	
Manual Training Inst.	L. A. Campbell	Man. Training	130 00	
Salmon Arm:				
Canoe Creek, North	Miss E. E. Ivens	3rd Class	65 00	
Canoe Creek, South	Miss M. J. McLean	2nd "	70 00	F. W. McGregor, *Chairman*, R. G. Kirkpatrick, — Two years.
Dolan's Corners	Miss A. E. Scales	1st "	65 00	
Gleneden	Miss Louise E. Ivens	3rd "	65 00	M. McKay, *Secretary*, W. E. Hutson, F. B. Shaw, — One year.
Salmon Arm, West, 1st D.	Miss E. F. Ireland	1st "	80 00	
" " 2nd "	Miss E. S. Scales	2nd "	65 00	
Spallumcheen:				
Bennett	Miss A. E. Fowler	3rd "	70 00	W. P. Horsley, A. Ford, — Two years.
Hullcar	Miss F. N. Abbott	3rd "	70 00	
Knob Hill	Miss Dorcas Brash	3rd "	70 00	W. T. Hayhurst, *Chairman*, G. Patchett, E. Patten, — One year.
Lansdowne	Miss L. M. Burnham	3rd "	70 00	
Larkin	Miss G. B. Brett	2nd "	70 00	
Otter Lake	Miss M. C. Gyves	3rd "	70 00	L. E. Farr, *Secretary.*
Pleasant Valley	Miss E. M. Anderson	2nd "	70 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Sumas:				
Huntingdon, 1st Division	Miss A. M. Gillespie	1st Class	$ 70 00	Wm. Porter, *Chairman*, W. L. Blatchford, — Two years.
" 2nd "	Miss K. L. York	2nd "	60 00	
Kilgard	Miss J. M. Wright	3rd "	60 00	T. B. Straiton, E. E. Austin, J. W. Winson, *Secretary*, — One year.
Musselwhite	Miss Elsie Potter	3rd "	60 00	
Straiton	Miss E. F. Heaps	2nd "	60 00	
Sumas, Upper	Miss I. E. Henry	2nd "	60 00	
Summerland:				
Summerland High, 1st D.	D. H. McIntosh, B.A.	Academic	125 00	
" " 2nd "	C. D. Denton, B.A.	"	100 00	
Central, 1st Division	C. W. Lees, B.A.	"	125 00	Mrs. N. K. Andrew, Mrs. L. M. Kelley, — Two years.
" 2nd "	Miss Jessie Rothwell	1st Class	85 00	
" 3rd "	Miss A. E. Ballantine	3rd "	70 00	Dr. E. W. Sawyer, *Chairman*, J. L. Hilborn, S. F. Sharp, — One year.
" 4th "	Miss M. E. Brown	2nd "	70 00	
" 5th "	Miss Mary Lister	2nd "	70 00	
Garnett Valley	Miss A. R. Dale	1st "	65 00	J. Harry Bowering, *Secretary*.
Trout Creek	Miss S. E. Dynes	3rd "	65 00	
Surrey:				
Anniedale	Mrs. M. E. Fife	1st "	60 00	
Clayton	Miss H. M. Smith	2nd "	60 00	
Cloverdale, 1st Div. (Sup.)	David Hoyle, B.Sc.	Academic	100 00	
" 2nd "	Miss M. M. Dunton, B.A.	"	70 00	
" 3rd "	Miss L. G. Davis	2nd Class	70 00	
" 4th "	Miss G. R. Whiteley	2nd "	70 00	
Crescent Beach	Miss G. E. M. Hardacre	3rd "	70 00	
Hall's Prairie, 1st Div.	H. L. Webb	2nd "	65 00	
" 2nd "	Miss M. G. Chivers	2nd "	60 00	
Hjorth Road	Miss M. H. Fallows	Academic	60 00	
Johnston Road	Miss Jessibelle Herd	3rd "	60 00	Abraham Dinsmore, *Chairman*, Jas. Johnston, — Two years.
Kensington, East	Miss I. M. G. Rickaby	3rd "	60 00	
Kensington Prairie, 1st D.	W. S. Snider	2nd "	65 00	Henry Parr, David Hughes, Stephen Williams, — One year.
" 2nd "	Miss Hester Draper	1st "	60 00	
Mud Bay	Miss H. I. Turnbull	2nd "	60 00	
Newton	Miss B. M. Carruthers, B.A	Academic	60 00	Simon Cunningham, *Secretary*.
Port Mann	Miss E. A. M. Matheson	2nd Class	60 00	
Scott Road	Miss Elva C. Buettner	3rd "	60 00	
Springdale	Miss B. M. Gibson	3rd "	60 00	
Strawberry Hill	Miss N. M. Carr	1st "	60 00	
Surrey Centre	Miss A. M. Milton	2nd "	60 00	
Tynehead, 1st Division	Miss B. M. Carruthers (room closed)	1st "	65 00	
" 2nd "	Miss E. E. Bournes	3rd "	60 00	
Westminster, South	J. H. L. Coates	3rd "	65 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Surrey.—*Concluded.*				
White Rock, 1st Division	Miss A. L. Thompson.....	3rd Class	$ 60 00	
" 2nd "	Miss B. A. Chadwick	1st "	65 00	
Vancouver, North:				
Capilano, 1st Division ...	Mrs. Bessie McColl.....	1st "	85 00	
" 2nd " ...	Miss A. M. Hamilton.....	2nd "	60 00	
Keith Lynn, 1st Division.	Miss Maude McCoy.....	1st "	85 00	
" 2nd "	Miss K. L. M. Neate.....	3rd "	60 00	T. T. Hammersmark, *Chairman*, J. Neat, — Two years.
Lynn Valley, 1st Division	A. W. Brown, B.A.....	Academic.....	130 00	
" 2nd "	Miss S. J. Forrest.....	3rd "	70 00	E. H. Bridgeman, G. G. Nye, Horatio McKenna, — One year.
" 3rd "	Miss Ada Allen	3rd "	70 00	
" 4th "	Miss A. M. Shore.....	2nd "	60 00	
" 5th "	Miss M. F. Watson.....	3rd "	75 00	Geo. Davidson, *Secretary.*
North Star, 1st Division.	Miss E. A. Watson.....	1st "	100 00	
" 2nd "	Mrs. C. E. Rae.....	1st "	70 00	
" 3rd "	Miss J. S. Angus, M.A.....	Academic.....	75 00	
Vancouver, South:				
High, 1st Division.....	J. T. E. Palmer, B.A	"	225 00	
" 2nd "	Miss J. J. MacKenzie, M.A	"	160 00	
" 3rd "	G. W. MacKinnon, B.A....	"	150 00	
" 4th "	H. W. L. Laffere, B.A.....	"	150 00	
" 5th "	G. W. Clark, M.A.	"	140 00	
" 6th "	Miss Frances Moule, B.A ..	"	140 00	
" 7th "	Miss Irene Mounce.....	"	110 00	
" 8th "	H. N. MacCorkindale, B.A.	"	140 00	
" 9th "	C. H. Mercer, M.A.....	"	150 00	
Brock, 1st Division.....	H. E. Harvey.....	1st Class	140 00	
" 2nd "	C. J. Ferguson.....	1st "	100 00	
" 3rd "	Miss F. M. White.	2nd "	90 00	
" 4th "	Miss E. B. Robertson.....	2nd "	95 00	
" 5th "	Miss O. F. Miller.....	2nd "	60 00	
" 6th "	Miss D. E. Peck.....	1st "	60 00	
" 7th "	Miss L. V. Dixon.....	2nd "	85 00	
Carleton, 1st Division...	A. E. C. Martin, B.Sc.....	Academic.....	180 00	
" 2nd " ...	Miss L. E. Hindle.....	1st Class.....	95 00	
" 3rd " ...	R. A. Bryson.....	3rd "	100 00	
" 4th " ...	Miss Sarah Davis	2nd "	85 00	
" 5th " ...	Miss Nellie Hadfield.....	2nd "	75 00	
" 6th " ...	Miss Margaret Scurrah....	3rd "	75 00	
" 7th " ...	Miss A. E. A. Jacks.....	2nd "	60 00	
" 8th " ...	Miss Frances Wilbers.....	2nd "	65 00	
" 9th " ...	Miss A. T. Smith.....	1st "	75 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver, South.—*Continued.*				
Carleton, 10th Division..	Miss A. W. Paddon.....	2nd Class.....	$ 70 00	
" 11th " ..	Miss R. I. R. MacRae.....	2nd "	70 00	
" 12th " ..	Miss S. V. Ferguson.....	2nd "	70 00	
Champlain	Miss E. J. Crowe.....	2nd "	65 00	
Connaught, 1st Division.	Miss M. B. Frame.....	2nd "	80 00	
" 2nd "	Miss V. M. Smith	3rd "	65 00	
Moberly, 1st Division....	Miss E. M. Dickieson.....	1st "	160 00	
" 2nd " ...	Miss M. D. Dewar.....	2nd "	100 00	
" 3rd "	Miss Elizabeth Magee	3rd "	70 00	
" 4th "	Miss B. H. Reilly	1st "	70 00	
" 5th "	Miss D. A. Clark.....	1st "	75 00	
" 6th "	Miss I. R. Whelan.....	2nd "	60 00	
" 7th "	Miss E. M. Henderson.....	2nd "	90 00	
" 8th "	Miss R. W. Scott.....	2nd "	60 00	
Richard McBride, 1st D.	M. E. Schaefer.....	2nd "	160 00	
" 2nd "	G. A. Macdonald, B.Sc....	Academic.....	100 00	
" 3rd "	Miss Agnes Gemmell.....	1st Class.....	80 00	
" 4th "	Mrs. L. A. Corral	3rd "	80 00	
" 5th "	Miss C. J. Holden.....	1st "	75 00	
" 6th "	Miss Isabell McLennan	3rd "	65 00	
" 7th "	Miss O C. Morrison.....	2nd "	85 00	
" 8th "	Miss E. L. Hill.....	1st "	70 00	
" 9th "	Miss E. E. Sharman.....	2nd "	80 00	
" 10th "	Miss M. F. Johnston	2nd "	70 00	
Mackenzie, 1st Division .	S. J. Clarke.....	2nd "	190 00	
" 2nd "	Miss Henrietta Anderson..	1st "	100 00	
" 3rd "	J. O. McLean.....	2nd "	70 00	
" 4th "	Miss Florence Percival	2nd "	70 00	
" 5th "	Miss V. J. Matheson.....	2nd "	90 00	
" 6th "	Miss A. A. Ross.....	2nd "	65 00	
" 7th "	Miss H. M. Jex.....	2nd "	70 00	
" 8th "	Miss A. C. Wilks.....	2nd "	60 00	
" 9th "	Miss E. H. Calbick.....	2nd "	85 00	
" 10th "	Miss Christine Crebbin....	2nd "	65 00	
" 11th "	Miss A. G. Stewart.....	1st "	60 00	
" 12th "	Miss Agnes Ainslie.....	3rd "	75 00	
" 13th "	Miss J. P. Lees.....	3rd "	60 00	
Norquay, 1st Division...	J. A. Hamilton	2nd "	170 00	
" 2nd " ...	Miss F. O. Hamilton.....	1st "	95 00	
" 3rd " ...	Miss H. M. MacRae	2nd "	65 00	
" 4th " ...	Miss K. A. Matheson.....	2nd "	65 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.	
Vancouver, South.—*Continued.*					
Norquay, 5th Division	Miss G. W. Miller, B.A	Academic	$ 60 00	Mrs. Annie E. McPhie,	Two years.
" 6th "	Miss G. M. Morgan	2nd Class	70 00	David Woods,	
Laura Secord, 1st Div	J. A. Clarke	1st "	140 00	R. H. Neelands, *Chairman*,	One year.
" 2nd "	Miss I. V. Wood	2nd "	60 00	W. W. Robertson,	
" 3rd "	Miss E. W. Litch	2nd "	60 00	G. A. Stevens,	
Lord Selkirk, 1st Division	S. B. Clement	2nd "	200 00	Chas. J. Mabbott, *Secretary.*	
" 2nd "	E. M. White	Academic	100 00		
" 3rd "	Miss G. M. Copeland	2nd Class	95 00		
" 4th "	Miss V. L. Domoney	1st "	95 00		
" 5th "	Miss N. M. Heard	2nd "	85 00		
" 6th "	Thomas Woodcock	1st "	70 00		
" 7th "	Miss A. M. Pettit	1st "	80 00		
" 8th "	Miss M. A. Jackson	1st "	80 00		
" 9th "	Miss W. M. Tucker	2nd "	60 00		
" 10th "	Miss E. O. Thomas	1st "	75 00		
" 11th "	Miss B. M. Johnstone	2nd "	70 00		
" 12th "	Miss Mary Robertson	2nd "	70 00		
" 13th "	Miss G. C. McKenna	3rd "	65 00		
" 14th "	Miss P. C. Becker	2nd "	90 00		
" 15th "	Miss G. M. Becker	Academic	85 00		
Sexsmith, 1st Division	G. S. Wate	1st Class	140 00		
" 2nd "	Miss W. M. Carruthers	3rd "	70 00		
" 3rd "	Miss C. A. Christie	1st "	70 00		
" 4th "	Miss E. C. Copeland	2nd "	60 00		
Tecumseh, 1st Division	C. L. Thornber	2nd "	180 00		
" 2nd "	F. A. Armstrong, B.A	Academic	100 00		
" 3rd "	Miss Isabelle Robertson	2nd Class	80 00		
" 4th "	Mrs. E. C. Logie (room [closed)	2nd "	80 00		
" 5th "	Miss L. B. Clark	3rd "	75 00		
" 6th "	Miss G. A. Williamson	2nd "	65 00		
" 7th "	Miss M. A. Macdonald	2nd "	70 00		
" 8th "	Miss M. C. Kay	2nd "	60 00		
" 9th "	Miss O. I. Findlay	3rd "	80 00		
" 10th "	Miss B. K. Loat	1st "	70 00		
" 11th "	Miss H. K. Woods	2nd "	70 00		
" 12th "	Miss A. M. Litch	2nd "	70 00		
" 13th "	Miss A. L. Paddon	2nd "	65 00		
Van Horne, 1st Division	R. C. Eaton, B.A	Academic	140 00		
" 2nd "	Eustace Sherman	2nd Class	100 00		
" 3rd "	Miss M. M. Steele	2nd "	70 00		
" 4th "	Miss M. M. Steele (room [closed)	2nd "	65 00		

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural Municipality Schools.—Concluded.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Vancouver, South.—*Concluded.*				
Van Horne, 5th Division	Miss M. L. Jones	2nd Class	$ 70 00	
" 6th "	Miss L. B. Copeland	2nd "	80 00	
" 7th "	Miss M. E. Ward	3rd "	70 00	
Wolfe, 1st Division	A. H. Macdonald	1st "	180 00	
" 2nd "	J. C. Berto	3rd "	100 00	
" 3rd "	Miss A. B. Dunsmuir	2nd "	85 00	
" 4th "	Miss Annie Loughead	3rd "	65 00	
" 5th "	Miss Mary Rose	1st "	70 00	
" 6th "	Miss R. P. McCaul	2nd "	70 00	
" 7th "	Miss L. C. Robertson	2nd "	65 00	
" 8th "	Miss M. H. Risk	1st "	60 00	
" 9th "	Miss J. L. Walter	2nd "	70 00	
" 10th "	Miss M. H. Williamson	2nd "	60 00	
" 11th "	Miss M. L. Copeland	2nd "	75 00	
" 12th "	Mrs. E. C. Logie	2nd "	80 00	
" 13th "	Miss L. V. Bissett	3rd "	65 00	
Manual Training Instructors.	A. S. Hamilton	Man. Training	140 00	
	Horace Vinall	Tech. Man. Tr'g.	100 00	
	Christopher Kerton	Man. Training	130 00	
	W. K. Woodcock	"	150 00	
	N. Y. Cross	Tem. Man. Tr'g.	100 00	
	J. A. Green	Man. Training	120 00	
Domestic Science Instructors.	Mrs. M. A. Martin (Sup.)	Dom. Science.	105 00	
	Miss L. E. Johnston	"	75 00	
	Miss E. I. Lightbody	"	75 00	
	Miss V. C. Shaw	"	75 00	
	Miss H. B. Bruce	"	75 00	
	Miss B. N. Allan	"	75 00	
Vancouver, West:				
Caulfeild	Miss D. M. Jones, B.A.	Academic	62 50	Lancelot Garthorne, *Chairman*, H. R. McDonald, Mrs. Beatrice M. Grady, Two years. J. Jackman, J. S. Yates, One year. Mrs. N. Hopkinson, *Secretary*.
Dundarave	Miss E. L. Smith	1st Class	80 00	
Hollyburn, 1st Division	G. E Brealey	1st "	105 00	
" 2nd "	Miss M. L. Palmer	2nd "	62 50	
" 3rd "	Miss Marguerite Martin	3rd "	62 50	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.

School.	Teacher.	Certificate.	Monthly Salary.	Trustees.
Abbotsford, 1st Division	F. L. Murphy, B.A.	Academic	$110 00	John J. McPhee, Sec. (2); Thos. C. Coogan (3); B. B. Smith (1); J. A. McGowan, Auditor.
" 2nd "	Miss E. M. Percival	2nd Class	60 00	
" 3rd "	Miss A. S. Gillen	2nd "	57 20	
" 4th "	Miss J. L. Simlett	1st "	52 80	
Ainsworth	Miss G. M. Hambly	2nd "	75 00	Thos. Hawes, Sec. (2); Alec. McLeod (3); L. B. Luther (1); Philip Morrison, Auditor.
Albert Canyon	Miss A. E. Vanetta	3rd "	73 00	F. Holder, Sec. (2); A. Carraro (1); C. Carlson (3); G. Lennard, Auditor.
Albert Head	Miss M. R. Greenway	3rd "	60 00	F. F. Higgs, Sec. (1); Mrs. McIllwain (2); Mrs. E. C. Hart (3); Mrs. J. Trotter, Auditor.
Alert Bay	Miss Mary Hartin	2nd "	70 00	Mrs. Robert Fleming, Sec. (2); M. Davis (3); Mrs. W. J. Warren (1); E. H. Robinson, Auditor.
Alexandria	Miss C. B. Prefontaine	3rd "	90 00	Mrs. M. E. Rowed, Sec.; Walter Smith; Wm. Cockin.
Alice Arm	Mrs. Mercy Bromley	Temporary	75 00	H. F. Kergin, Sec.; F. W. Falconer; R. B. McGinnis.
Alice Siding	J. E. King	1st Class	80 00	Victor Carr, Sec. (1); John Miller (2); A. W. Mason (3); Guy Constable, Auditor.
Allen Grove	Miss Violet Traviss	3rd "	65 00	R. L. Allen, Sec. (1); Joseph Brent (2); F. Brent (3); G. A. Clarke, Auditor.
Anaconda	Matthew Beattie	2nd "	95 00	John Williamson, Sec. (1); Sam Bombini (3); Robert Williamson (2); M. Beattie, Auditor.
Anarchist Mountain	Miss F. E. Peters	3rd "	75 00	Wm. Letts, Sec. (1); Geo. Winter (2); Fred Newman (3); J. L. Dodds, Auditor.
Annable	Miss K. L. Litch	3rd "	75 00	W. H. Sleeman, Sec. (2); E. E. Holland (1); John Hyntz (3); Jas. Black, Auditor.
Appledale	Miss M. E. Murray	1st "	75 00	G. S. Godfrey, Sec. (2); W. T. Wynne (1); J. M. Lawson (3); Wm. Marshall, Auditor.
Arrowhead	F. T. Marriage	1st "	90 00	I. Fyfe, Sec. (2); I. E. Bland (1); A. Fortlund (3); H. Kirk, Auditor.
Arrow Park, East	R. W. Ashworth	1st "	80 00	C. S. Ball, Sec. (2); John Fesser (3); A. E. Keffer (1); John Hall, Auditor.
Arrow Park, West	Frederick Job	1st "	75 00	H. B. K. Nicholls, Sec. (1); Alfred Bourne (2); John James (3); A. J. Harrison, Auditor.
Ashcroft, 1st Division	R. G. Gordon	Academic	90 00	R. D. Cumming, Sec. (2); H. Koelkenbeck (1); Jas. Haddock (3); M. Bryson, Auditor.
" 2nd "	Mrs. L. B. Harlow	2nd Class	80 00	
" 3rd "	Miss J. M. Sutherland	3rd "	70 00	
Ashton Creek	Miss V. E. Vickers	3rd "	73 00	H. D. Baxter, Sec. (3); Wm. Cooke (2); C. B. Parkinson (1); Robt. Cooke, Auditor.
Aspen Grove	James Hislop	2nd "	75 00	Wm. Foster, Sec. (1); J. E. Bate (2); John Garcia (3); E. P. Lowe, Auditor.
Athalmer	Miss E. I. Dyer	1st "	90 00	J. L. McKay, Sec. (3); J. T. Burgess (1); J. P. Guthrie (2); J. E. Cornwall, Auditor.
Atlin	T. A. James	Temporary	100 00	H. Young, Sec.; Geo. D. Sinclair; Hugh Molyneaux.
Balfour	Miss P. G. Whitebread	2nd Class	80 00	S. D. Rose, Sec. (1); C. Holt (2); W. A. Slater (1); S. S. Fraser, Auditor.
Balmoral	G. E. Welbanks	3rd "	70 00	Geo. Mackie, Sec. (1); Thos McConnell (2); Martin Hendrickson (3); W. W. Greer, Auditor.
Bamfield	Mrs. N. B. Lewis	Temporary	70 00	
Barkerville	Miss G. R. Cowan	2nd Class	95 00	Fred Harper, Sec. (3); Wm. McArthur (2); F. J. Tregillus (1); Thos. Vicol, Auditor.
Barnston Island	Miss Emily Warren	1st "	65 00	W. Scott Walker, Sec. (3); Donald Nisbet (2); Mrs. J. Hicks (1); John Charnley, Auditor.
Barriere Power House	Miss O. B. MacKenzie	2nd "	70 00	H. C. Chambers, Sec.; D. Dalgleish; H. Connotty.
Barriere River	Miss E. M. Pugh	1st "	75 00	J. H. H. Nelson, Sec. (1); Mrs. W. E. Betts (2); Herman Peterson (3); W. H. Smith, Auditor.
Barriere Valley	Wm. Cameron, M.A.	Academic	75 00	H. L. French, Sec. (1); W. Morgan (2); H. D. MacDougall (3); E. Cameron, Auditor.
Baynes Lake	Miss G. C. Cartwright	3rd Class	80 00	J. Radford, Sec. (1); S. J. Morrow (2); W. H. Griffiths (3).
Bear Creek	Miss M. I. Renwick	2nd "	65 00	H. V. Chaplin, Sec. (1); B. Kitson (2); H. C. Childers (3); J. H. Kitson, Auditor.
Beaton	Miss Kathleen McGeer	3rd "	75 00	W. E. Glenn, Sec.
Beaver Creek	Miss M. I. Lyness	2nd "	70 00	F. K. Plaunt, Sec. (1); Mrs. McNeill (2); Robt. Orr (3); F. Flockerman, Auditor.
Beaver Lake	Miss E. M. N. Lettice	2nd "	85 00	Claude Skelton, Sec. (1); Jas. McAulay (2); Mrs. G. G. Hamilton (3); G. G. Hamilton, Auditor.
Beaver Point	Miss M. T. Macfie	2nd "	55 00	D. H. Ruckle, Sec. (1); L. King (2); Ed. Johnson (3); A. McLennan, Auditor.
Begbie	Miss G. A. Gregory	2nd "	75 00	R. M. Smythe, Sec. (2); Geo. Matheson (1); Geo. Williamson (3); W. H. Horobin, Auditor.
Belford	Miss V. A. Chasteney	2nd "	75 00	J. A. Robinson, Sec. (2); J. McPhail (1); Andrew Lindblad (3); A. J. Laviolette, Auditor.

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

School.	Teacher.	Certificate.	Monthly Salary.	Trustees.
Bella Coola	Miss K. B. Hallowes	1st Class	$ 80 00	P. Lauritson, Sec. (3); E. Gordon (1); H. O. Hanson (2); O. J. Lokken, Auditor.
Bella Coola, Lower	C. A. Cameron	3rd "	80 00	John Gorgenson, Sec. (2); J. Widston (1); R. N. Livelton (3); H. Thorsen, Auditor.
Bench	Miss I. M. Fleet	2nd "	75 00	C. W. Mills, Sec. (2); Nathan Dougan (1); T. H. Parker (3); F. B. Boucher, Auditor.
Beresford	Mrs. Aileen Ferguson	3rd "	70 00	W. G. Adamson, Sec. (3); Geo. Frolek (1); H. Haughton (2); Jacob Barker, Auditor.
Berrydale	Miss Anna Dewar	3rd "	75 00	James Miller, Sec. (3); Mrs. R. Colbran (1); Murt Carroll (2).
Big Bar	Mrs. E. P. Simms	1st "	90 00	
Big Bar Mountain	Miss E. G. Clark	1st "	90 00	W. Wilkinson, Sec.
Big Bar, Upper	Miss Clemence Bertrand	Temporary	90 00	C. Cover, Sec. (1); H. Coldwell (2); Albert Neas (3).
Big Eddy	G. E. Richards, B.Sc.	Academic	78 00	F. W. Wiffin, Sec. (3); C. Campe (1); T. Barrett (2); H. Carlson, Auditor.
Blaeberry	Miss M. J. Wadman	Temporary	75 00	B. H. Mitchell, Sec. (2); W. Laurd (1); W. Lumsden (3); A. J. Holme, Auditor.
Blind Bay	Miss C. M. Mackay	3rd Class	65 00	John Reedman, Sec. (3); Chas. Doebert (1); T. J. Burrell (2); W. J. Dunne, Auditor.
Blueberry Creek	Miss Christine Marshall	3rd "	65 00	A. E. Pittaway, Sec.; Mr. Wharff; Mr. Beresford.
Bonaparte Valley	Miss J. I. Barton	2nd "	75 00	Ed. Dougherty, Sec. (1); W. Pearson (2); F. Baker (3).
Boston Bar	Miss F. M. McKinnon	3rd "	65 00	J. W. Lewis, Sec.; W. D. Hughes; M. Florence.
Boswell	Miss L. E. Wallace	3rd "	75 00	S. S. Frank, Sec. (2); G. H. Bartley (1); Mrs. A. Kennedy (3); B. Smith, Auditor.
Boundary Falls	Miss E. J. Kerr	2nd "	75 00	J. C. Cruise, Sec.
Bowen Island	Miss G. L. Pedlow	3rd "	68 00	W. J. Davies, Sec. (1); Mrs. F. O. Magee (2); Mrs. A. L. Billington (3); J. Horne, Auditor.
Bowie	Miss Gwendoline Stubbs	3rd "	65 00	Matti Tutter, Sec. (2); F. Roun (1); V. Enquist (3); Seth Ylisto, Auditor.
Bowser	Miss Sadie Hardy	2nd "	60 00	A. Lodge, Sec. (1); —— (2); J. Calijouw (3); F. Maddison, Auditor.
Box Lake	Mrs Ida Wyrill	1st "	75 00	F. Wensley, Sec. (2); C. B. Hamling (1); S. J. Harlow (3); W. Waterfield, Auditor.
Brechin, 1st Division	Paul Murray	1st "	100 00	Frank Newberry, Sec. (1); Sam Cowden (2); Adam Stewart (3); Jas. Turner, Auditor.
" 2nd "	Miss C. V. Freeman	3rd "	80 00	
" 3rd "	Miss F. L. Cook	3rd "	70 00	
Bridesville	Miss M. N. Blake	3rd "	65 00	A. J. Tippie Sec. (1); J. S. McLean (2); R. F. Bilups (3); R. W. Taylor, Auditor.
Brilliant, 1st Division	Miss M. M. Morrow	2nd "	85 00	Larion W. Verigin, Sec. (3); John E. Konekin (2); Simon Verechegin (1).
" 2nd "	Miss A. J. Spence	3rd "	85 00	
Brisco	Miss E. F. Clark	2nd "	85 00	H. Atchison, Sec.
Britannia Beach, 1st Div	T. J. Barron, B.A.	Academic	80 00	J. W. Austin, Sec. (1); H. Swan (2).
" 2nd "	Miss Ruth Gordon	3rd Class	60 00	
Britannia Mine	T. E. Levy	3rd "	65 00	D. G. Stewart, Sec.; D. O'Connor; C. B. Wilson; T. Ware, Auditor.
Bull River Bridge	Miss S. I. A. Robinson	2nd "	80 00	B. Luck, Sec. (2); W. Schadd (1); J. H. Cassidy (3); B. Markle, Auditor.
Burgoyne Bay	Miss H. L. Marling	2nd "	60 00	G. E. Akerman, Sec. (2); N. Lee (1); J. Shaw (3); R. P. Edwards, Auditor.
Burtondale	Miss R. D. Newman	3rd "	70 00	J. H. McCormack, Sec. (1); Charles Turner (2); T. F. Lane (3); E. Hubert, Auditor.
Cache Creek	Mrs. F. E. Gillis	2nd "	60 00	C. A. Semlin, Sec. (2); P. Parke (1); J. Walker (3); H. L. G. Austin, Auditor.
Campbell Creek	Miss A. McV. Halliday	3rd "	65 00	M. F. Blackwell, Sec. (1); C. R. Lee (2); H. Pratt (3); A. Holt, Auditor.
Campbell Range	Miss C. M. Gowans	1st "	70 00	R. H. F. Baxter, Sec.; Walter Campbell; Wm. McLeod.
Campbell River	Miss C. E. Williams	2nd "	60 00	D. M. Hardy, Sec. (3); Mrs. C. J. Fitzgerald (1); J. C. Holme (2); J. H. Glanville, Auditor.
Canford	Mrs. L. M. Freeman	1st "	60 00	E. J. Rhodes, Sec. (2); H. C. Meeker (1); P. G. McKenna (3).
Canim Lake	Miss Hazel Stewart	2nd "	75 00	L. W. McNeil, Sec.; R. Lilly; H. McDougal.
Canyon City	Miss E. M. McLean	1st "	75 00	Francis Knott, Sec. (1); Eric Olsen (2); W. Searle (3); Andrew Wickholm, Auditor.
Cape Scott	Percy Pullinger	Temporary	80 00	Geo. Lovall, Sec. (1); Mrs. G. McQueen (2); Theodore Frederickson (3); Wm. Collison, Auditor.
Cariboo	P. E. Warner	1st Class	85 00	Jas. Newhort, Sec.

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Carlin Siding	Miss A. R. Graham	3rd Class	$ 75 00	T. P. Farrell, Sec. (3); Jos. Rabbie (1); C. Thompson (2); N. McCallum, Auditor.
Carson	Miss M. E. Morrison	3rd "	65 00	Robt. Lawson, Sec. (1); B. Jewell (2); E. Herrick (3); J. A. Coleman, Auditor.
Cartier	F. W. Laing, B.A.	Academic	90 00	S. Kulezyeki, Sec. (1); D. Hosczewski (2); F. Saperite (3); J. C. McKenzie, Auditor.
Cascade	Miss A. P. Jones	1st Class	90 00	J. A. Bertois, Sec. (2); Mrs. Rennie (1); Samuel Handy (3); Edward Smith, Auditor.
Castledale	Miss S. B. MacDonald	3rd "	75 00	C. F. Andrews, Sec. (1); Martin Sole (2); J. R. Burgess (3); P. O. Gilbert, Auditor.
Castlegar	Miss S. G. Timaeus	1st "	80 00	W. J. Farmer, Sec. (1); J. T. Laurie (2); J. A. Killough (3); J. T. Laurie, Auditor.
Cedar, East	Victor McKenzie	3rd "	70 00	Mrs. M. Greenway, Sec. (1); Thos. Brown (2); Mrs. M. A. Amscough (3); Mrs. E. Crane, Auditor.
Cedar, North, 1st Division	Alexander Smith	2nd "	80 00	Chas. Feddick, Sec. (2); Henry Wilkinson (1); George Coles (3); Rev. G. A. Bagshaw, Auditor.
" 2nd "	Miss M. W. Mercer	2nd "	65 00	
Cedar, South	Miss A. A. Parrott	2nd "	78 00	Alex. Galloway, Sec. (2); Hedley Vickers (1); R. Ferguson (3); J. C. Thompson, Auditor.
Chase, 1st Division	W. P. Beal, B.A.	Academic	100 00	J. A. Graham, Sec. (1); C. W. Cameron (2); J. F. Reid (3); I. A. Graham, Auditor.
" 2nd "	Miss A. M. Gilchrist	2nd Class	75 00	
" 3rd "	Miss N. C. O'Hearn	3rd "	65 00	
Chase Creek	Miss M. E. Townsend	3rd "	65 00	L. C. Brydon, Sec. (3); Joseph Blanc (1); O. P. Olsen (2); D. R. Pement, Auditor.
Chase Creek, Lower	Sydney O'Neill	3rd "	65 00	
Chase River, 1st Division	Miss G. C. McLean	2nd "	90 00	Henry Custison, Sec. (2); Geo. Wilkinson (1); Jno. Stewart (3); H. Critchley, Auditor.
" 2nd "	Miss J. A. Harvie	2nd "	75 00	
Chaumox	Miss Z. M. Manning	3rd "	60 00	J. S. Washtok, Sec. (1); J. McHenry (3); Thos. Winders (2).
Cherry Creek Valley	Miss M. E. J. Reid	2nd "	65 00	J. T. Skipsey, Sec. (1); Ernest Goodall (2); R. H. Milligan (3); J. R. Motion, Auditor.
Chief Lake	E. F. W. Towers	Temporary	80 00	Mrs. A. Allen, Sec. (3); W. Prosser (1); E. Miller (2); Jas. Marrow, Auditor.
Chilco	W. S. Moore	"	80 00	Samuel Cocker, Sec. (1); Ralph Dennison (2); John Sackner (3); Mrs. Maunders, Auditor.
Chimney Creek	Mrs. M. A. Bowe	"	85 00	Wm. Pinchbeck, Sec. (2); Jas Ismardy (1); Robt. Hailstone (3).
Christina Lake	Miss A. E. Foy	2nd Class	70 00	D. D. Ferguson, Sec. (1); E. Reading (2); Mrs. E. A. St. George Smyth (3); D. McCallum, Auditor.
Chu Chua	Miss N. H. Crandlemire	1st "	75 00	Geo. Fennell, Sec. (2); Edgar Fortier (1); J. J. Popps (3); P. B. Hartley, Auditor.
Clayoquot	Miss W. G. Sutton	2nd "	70 00	W. Armitage, Sec. (3); Thos. Wingen (1); F. C. Garrard (2); Jas. Sloman, Auditor.
Clearwater	Miss M. F. Tait	1st "	75 00	J. B. Marshall, Sec. (2); Harvey Bester (1); L. B. Price (3); D. A. McLeman, Auditor.
Clinton	Miss E. L. Smith	3rd "	85 00	A. McDonald, Sec. (3); Mrs. M. Barton (1); E. J. Payne (2); A. LeBaurdais, Auditor.
Clo-oose	Miss K. N. Grubb	2nd "	65 00	A. G. Cox, Sec. (1); Robt. Dickenson (2); David Logan (3); L. C. Matthews, Auditor.
Coal Creek, 1st Division	John Keough, B.A.	Academic	110 00	Mrs. L. T. Miard, Sec. (2); W. S. Greenhill (1) R. Johnstone (3); John Oliver, Auditor.
" 2nd "	Miss W. M. Townsend	1st Class	90 00	
" 3rd "	Miss K. I. Keith	3rd "	75 00	
Coalmont	Blaine Richardson, B.A.	Academic	75 00	W. T. Smart, Sec. (2); W. H. Holmes; A. D. Worgan, Auditor.
Cobble Hill	G. W. Stubbs	1st Class	65 00	J. J. Dougan, Sec. (3); I. J. Sheppard (1); Mrs. McMillan (2); J. A. Porter, Auditor.
Cokato	G. C. Allen	2nd "	75 00	R. Derbyshire, Sec. (1); Thomas Cunliffe (2); Julia Anderson (3); Robt. Hubbersty, Auditor.
Coltern	Mrs. I. W. Parker	1st "	75 00	Samuel Young, Sec.; Gabe Eustice; J. T. Parkin.
Columbia Gardens	Miss Eva Robinson	3rd "	75 00	James Pipkin, Sec. (2); C. Archibald (1); W. Jewell (3); H. W. Denton, Auditor.
Columbia Park	Miss A. J. Dick, B.A.	Academic	75 00	W. N. Scott, Sec. (2); M. Malich (1); J. H. Cross (3); J. Konlin, Auditor.
Colwood	Miss Rose Jones	1st Class	75 00	H. Parker, Sec. (2); Mrs. W. Bickford (1); Mrs. Southwell (3); W. Bickford, Auditor.
Comox, 1st Division	Miss E. V. Cass	2nd "	80 00	J. A. Carthew, Sec. (2); H. A. Grant (1); E. H. Davis (3); C. C. Purey, Auditor.
" 2nd "	Miss Elsie Creeden	2nd "	65 00	
Concord	Miss H. S. Kittleson	2nd "	65 00	Mrs. D. E. Sturdevant, Sec. (1); D. E. Sturdevant (2); R. Gould (3).
Copper City	Miss I. C. Fairbairn, B.A.	Academic	95 00	S. W. Dobbie, Sec. (1); O. Linlard (2); A. Carmichael (3); P. R. Skinner, Auditor.

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Copper Creek	Miss C. R. May	2nd Class	$ 75 00	T. A. Hardie, Sec. (2); C. Ralle (1); D. McBride (3); C. Fehr, Auditor.
Copper Mountain	A. J. Clotworthy	1st "	70 00	A. A. Robertson, Sec. (3); Chas. Stalker (1); T. Beauline (2).
Corbin	A. L. Harvey, B.A.	Academic	105 00	Chas. Graham Sec. (1); Geo. Spencer (2); Geo. Cleough (3); James Lancaster, Auditor.
Cortes Island	Miss K. M. Lettice	2nd Class	75 00	Jas. Manson, Sec. (3); Frank Petznick (1); F. G. Hawkins (2); J. A. Smith, Auditor.
Cowichan, 1st Division	George Boyer	1st "	80 00	Edwin Guns, Sec.
" 2nd "	Miss E. M. Bruce	3rd "	65 00	
Cowichan Lake	Miss J. I. McIntyre	2nd "	65 00	H. T. Hardinge, Sec. (2); Horace Johnson (1); J. H. Castley (3); A. N. Dick, Auditor.
Craigellachie	Miss Agnes Blackberg	2nd "	70 00	A. E. Lehman, Sec. (3); C. E. Fuller (1); Charlotte B. Larder (2); Geo. Larder, Auditor.
Cranberry Marsh	Miss Jessie Mouat	3rd "	70 00	C. E. Nobbs, Sec. (2); H. Rogers (1); T. Carter (3); A. Bartlett, Auditor.
Crawford Bay	Miss M. M. Keenan	2nd "	80 00	A. R. McGregor, Sec. (2); L. N. Houghton (1); A. J. Watson (3); W. W. Mooney, Auditor.
Crawford Creek	Miss Catherine Vipond	3rd "	75 00	F. G. Waddington Sec. (2); R. Peky (1); John Schumacher (3); C. Johnston, Auditor.
Crescent Valley	Miss Edith Keech	3rd "	75 00	Wm. Winstanley, Sec.
Creston, 1st Div., (Sup.)	R. B. Masterton	1st "	105 00	F. H. Jackson, Sec. (2); James Cherrington (1); W. H. Crawford (3); G. B. Henderson, Auditor.
" 2nd "	Malcolm MacKenzie	2nd "	80 00	
" 3rd "	Miss B. A. Hurry	3rd "	70 00	
" 4th "	Miss Beatrice Hardman	1st "	80 00	
Criss Creek	Mrs. K. H. Douglas	Temporary	65 00	J. J. Dillon, Sec. (2); J. E. Turner (1); W. Sylvester (3).
Crowsnest	Miss O. M. Harris (room closed)	2nd Class	80 00	E. H. Sparham, Sec. (2); J. A. Broadhurst (1); Harry Shayler (3); Richard Flower, Auditor.
Cultus Lake	Mrs. J. P. McRae	2nd "	65 00	Chas. Swanberg, Sec. (1); Lester Frost (2); George Minich (3); M. Erhn, Auditor.
Curzon	Miss G. B. Ilsley, B.A.	Academic	75 00	A. L. Barnhardt, Sec. (1); Mrs. E. Chapman (2); A. H. Pigott (3); E. A. Lythgoe, Auditor.
Darcy Mountain	Wm. Troughton	1st Class	70 00	B. S. Peck, Sec. (3); Leroy Marks (1); John Basley (2); C. Gore, Auditor.
Deadwood	Miss E. M. Ferguson	3rd "	70 00	D. D. McLaren, Sec. (2); J. Cuthbertson (1); C. S. McRae (3); J. D. Graham, Auditor.
Deep Cove	Miss Kathleen Sullivan	2nd "	75 00	C. Moses, Sec. (1); R. P. Horth (2); Geo, Simpson (3); George Lowe, Auditor.
Deep Creek	Miss Eva Wade	3rd "	65 00	A. E. Hayhurst, Sec. (2); T. A. Sharpe (1); R. Davison (3); E. H. Naylor, Auditor.
Deer Park	Alfred Cullen	3rd "	75 00	George Carse, Sec. (2); Geo. Briggeman (1); E. W. Wires (3); F. J. Gosen, Auditor.
Demars, West	Miss Alice Murchison	1st "	75 00	A. L. May, Sec. (2); J. W. Wintersteen (1); H. Hedley (3); W. Horkan, Auditor.
Denman Island	Miss Lilian Hood, B.Sc.	Academic	60 00	Geo. Dalziel, Sec. (3); Harvey Piercy (1); Thomas Chalmers (2); Gavin Russell, Auditor.
Departure Bay	Miss E. K. Rogers	1st Class	75 00	C. D. Keighley, Sec. (1); A. Gilmour (2); W. Foster (3); J. Robson, Auditor.
Dewdney	Miss S. A. Mills	2nd "	75 00	S. Smith, Sec. (2); F. Buker (1); E. Davis (3); T. Brearley, Auditor.
Diamond Crossing, 1st Div.	Miss M. A. Williams	1st "	80 00	Louis Grouhel, Sec. (3); Wm. Wallace (1); Mrs. R. Pollock (2); James Dick, Auditor.
" 2nd "	Miss R. E. L. Bickle	2nd "	65 00	
Discovery	Miss I. D. Todd	3rd "	100 00	Wm. Morrison, Sec. (2); Chas. Gavins (1); Otto Miller (3); O. F. Conley, Auditor.
Dragon Lake	W. A. M. Sykes	1st "	90 00	Wm. Couldville, Sec. (3); E. L. Hilborn (1); Frank Lust (2); D. H. Anderson, Auditor.
Duck Range	Miss A. M. McLennan	2nd "	60 00	Wm. Charlton, Sec. (1); H. Sinclair (2); F. Des Ros (3); M. R. Chaters, Auditor.
Duhamel	Miss Gertrude McIntyre	2nd "	75 00	Mrs. E. N. Applewhaite, Sec. (1); A. B. Shannon (2); T. Lockwood (3); J. J. Campbell, Auditor.
Dunster	A. A. Todd	3rd "	80 00	Geo. Orman, Sec.; Ray Channell; T. W. Tindrie.
Edgewood	Mrs. J. W. Sayer	3rd "	75 00	Mrs. E. N. Nash, Sec. (3); F. Warner (1); W. J. Banting (2); J. Hewitt Naylor, Auditor.
Edith Lake	Miss M. H. Costley	Temporary	60 00	T. C. Humphrey, Sec. (2); Robt. MacKay (1); Fred. Pain (3); Henry Skinner, Auditor.
Eholt	Mrs. F. R. Milne	3rd Class	75 00	S. W. Auger, Sec. (3); Samuel Fretz (1); James Cairns (2); Edgar Bailey, Auditor.
Elk Bridge	A. A. McPhail	2nd "	80 00	A. C. Murray, Sec. (2); Anton Svec (1); Martin Bahr (3).
Elko	Miss A. M. Nicholson	3rd "	80 00	F. A. Gallagher, Sec. (3); Thos. Roberts (1); Jas. Thomson (2); J. Austin, Auditor.
Elk Prairie	Miss V. J. Clyde	3rd "	80 00	J. Chapham, Sec. (2); J. Firstel (1); C. C. Smith (3); W. J. Cooke, Auditor.

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Ellison	Miss N. J. Tully	2nd Class	$ 70 00	Miss M. L. Cottingham, Sec. (3); J. F. Guest (1); Mr. Hereron (2); Mr. Davenport, Auditor.
Empire Valley	Mrs. Mary Ashmore, M.A.	Academic	85 00	Mrs. M. Zimmerlee, Sec. (1); David Abel (2); Harry Higgonbottom, Auditor.
Endako	Miss M. M. Bowie	Temporary	80 00	O. N. Haydon Sec. (2); Mrs. H. A. Olds (1); J. Price (3); E. P. Cummins, Auditor.
Enderby, North	Miss M. C. Thomas	3rd Class	65 00	G. W. S. Pemberton, Sec. (3); R. F. Dale (1); Wm. Jones (2); H. F. Cowan, Auditor.
Erickson	Miss M. E. Dow	3rd "	75 00	J. M. Craigie, Sec. (2); Wm. Kemp (1); W. G. Littlejohn (3); B. Dew, Auditor.
Erie	Joseph Irwin	1st "	75 00	J. E. Read, Sec. (2); J. Kubuski (1); J. J. Hickey (3); O. A. Hoglund, Auditor.
Errington	Miss Eva Coombs	1st "	60 00	J. C. Buck, Sec. (1); Wm. Morrison (2); Mr. Nicklin (3); W. H. Woolsey, Auditor.
Essington	Miss M. R. Mayovsky	2nd "	80 00	A. N. Perkins, Sec. (2); Harry Berryman (1); A. E. Noel (3); E. A. Taylor, Auditor.
Extension, 1st Division	Miss Charlotte Mazzoline	2nd "	95 00	E. W. Bramley, Sec. (1); Alex. Michie (2); Wm. Godfrey (3); Wm. Cosier, Auditor.
" 2nd "	Miss M. M. Stewart	2nd "	75 00	
" 3rd "	Miss E. B. McKinnell	3rd "	65 00	
Fairview	Miss L. M. Archibald	Academic	75 00	R. D. Tweedie, Sec. (1); C. Jones (2); Al. Piper (3); R. S. Atkins, Auditor.
Falkland	Miss J. G. Hope	1st Class	75 00	Malcolm White, Sec.
Fanny Bay	Miss M. H. Gray	2nd "	70 00	Mrs. C. Tweedie, Sec. (3); Mrs. F. Larson (1); F. Curran (2); A. McLauchlin, Auditor.
Fauquier	E. R. Freeman, B.A.	Academic	75 00	A. E. Boden, Sec. (1); J. L. Funk (2); E. F. Spiller (3); O. J. Aspinal, Auditor.
Ferguson	Miss E. G. Corson	2nd Class	78 00	A. C. Cummins, Sec.
Field	Miss M. C. Hardy	3rd "	75 00	Allen McLennan, Sec. (2); John Dewberry (1); Ed. Hampton (3); H. H. Drake, Auditor.
Fife	Miss H. R. Wilkinson	1st "	75 00	J. P. Griffiths, Sec. (2); Chas. Auselmo (1); J. D. Clarkston (3); J. F. Wilkinson, Auditor.
Fire Valley	Miss Margaret Timaeus	1st "	75 00	A. H. Old, Sec. (1); L. C. Morrison (2); F. E. Warner (3); W. A. Calder, Auditor.
Fish Lake	Miss N. V. Chute	1st "	70 00	J. N. Newberry, Sec. (1); R. A. Buswell (2); J. Inks (3); J. J. Moore, Auditor.
Flagstone	Miss O. M. Harris	2nd "	83 00	James Joyce, Sec. (2); A. O. Abbey (1); Arthur Harby (3); H. C. Newendorp, Auditor.
Fort Fraser	J. S. Ross, B.A	Academic	100 00	Hugh Taylor, Sec. (3); J. E. Hooson (1); S. A. Ellis (2); J. S. Alexander, Auditor.
Fort George, 1st Division	William Bell	1st Class	125 00	Mrs. Helen M. McKenzie, Sec. (2); C. W. Moore (1); J. A. Brown (3); Alex. Hunter, Auditor.
" 2nd "	Miss M. R. Wade	2nd "	100 00	
Fort George, South	Miss E. M. Smith	3rd "	125 00	P. Campbell, Sec. (2); Capt. D. A. Foster (1); J. D. Moore (3); D. F. M. Perkins, Auditor.
Fort Steele, 1st Division	D. R. Fraser, B.A.	Academic	85 00	R. L. T. Galbraith, Sec. (3); A. B. Fenwick (1); David Cameron (2); Fred Benmore, Auditor.
" 2nd "	Miss A. M. Bate	3rd Class	65 00	
Foster's Bar	Miss Jessie Roy	2nd "	75 00	C. McGillivray, Sec. (1); Fred Watkinson (2); Wm. Kane (3).
French Creek	Miss F. A. Trainor	3rd "	73 00	E. Stevenson, Sec. (2); Walter Ford (1); G. Armstrong (3); A. H. West, Auditor.
Fruitlands, 1st Division	Miss L. E. Dundas	2nd "	70 00	Mrs. J. T. Maynard, Sec. (2); David Wyse (1); H. Nixon (3); A. V. Alexander, Auditor.
" 2nd "	Miss B. E. Dandy	2nd "	60 00	
Fruitvale	H. C. Garrard, B.A.	Academic	75 00	John Grieve, Sec. (1); W. Barrett (2); M. Varseveld (3).
Gabriola, North	Miss Catherine Ritchie	2nd Class	60 00	Wm. Griffith, Sec. (1); R. Easthom (2); Mrs. Jas. Rowan (3); R. Howie, Auditor.
Gabriola, South	Mrs. J. A. G. Mill	1st "	60 00	H. T. Peterson, Sec. (2); J. Murray (1); W. N. Shaw (3); Jas. Gray, Auditor.
Galena Bay	Mrs. M. B. Hyham	Temporary	75 00	Geo. Ashburner, Sec. (2); J. Dedvossenco (1); H. J. Hyham (3); W. Shaw, Auditor.
Galiano	F. W. Hicks	1st Class	65 00	J. W. Bellhouse, Sec.
Galiano, North	Miss M. S. Waugh	2nd "	60 00	F. G. Bristow, Sec. (3); E. T. Hanson (1); Henry Silvey (2).
Galloway	Mrs. Sara Codd, B.A	Academic	75 00	Andrew Mader, Sec. (1); R. Hope (2); W. T. Levy (3); J. W. Weston, Auditor.
Gambier Island	Miss G. B. Clower	2nd Class	65 00	Wm. Horsburgh, Sec. (3); Bert Kennedy (1); Wm. Fawcett (2); H. H. Junior, Auditor.
Ganges	Miss G. C. McRae	2nd "	60 00	A. R. Bittancourt, Sec. (3); Olan Garner (1); Mrs. Gilbert (2); Chas. Beddis, Auditor.
Gerrard	Mrs. M. G. Vars	2nd "	75 00	John Parisian, Sec.
Gill	Miss Minnie Smith, B.A.	Academic	78 00	Mrs. A. L. Griffin, Sec. (3); G. Smith (1); E. L. Gill (2); W. Prescott, Auditor.

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Gillis Bay	H. A. Eckardt	3rd Class	$ 73 00	P. H. McElroy, Sec. (2); Chas. Wesslin (1); D. A. Palm (3); A. C. Kenny, Auditor.
Gilpin	Miss E. M. Stuart	1st "	73 00	W. S. Phillips, Sec. (1); J. A. Harris (2); H. E. Knight (3); W. A. Hanson, Auditor.
Giscome	G. E. Apps	2nd "	75 00	
Glade	Miss Marie Greenwood	3rd "	85 00	Wasil Chernenkoff, Sec.
Glenbank	Miss I. C. Calbick	1st "	75 00	A. H. Poole, Sec. (1); C. Buesnell (2); E. W. Bill (3); J. W. Wood, Auditor.
Glencoe	Miss Georgina Agar, B.A.	Academic	90 00	G. D. Barlow, Sec. (1); M. C. Ross (2); Albert Martin (3); Wm. Cole, Auditor.
Glenemma	Miss M. J. Marshall	2nd Class	60 00	W. G. Simpson, Sec. (3); T. H. Smith (1); Wm. Bell (2); C. S. Hall, Auditor.
Glenora	Miss L. M. Rolfe	2nd "	70 00	Mrs. E. R. Roberts, Sec. (1); Mrs. J. Williams (2); Mrs. R. Irvine (3); Mrs. H. Vaux, Auditor.
Glenrosa	Miss M. W. Hay	2nd "	65 00	Grieve Elliot, Sec. (3); E. H. Smith (1); C. W. Hitchner (2); Thos. Hockey, Auditor.
Golden, High	Miss S. E. Keatley, M.A.	Academic	115 00	Thos. King, Sec. (2); H. V. Dartt (1); C. A. Warren (3); J. T. Wood, Auditor.
Golden, 1st Division	Robert Landells, B.A.	"	115 00	
" 2nd "	Miss E. J. Dick	2nd Class	95 00	
" 3rd "	Miss A. J. Riley	3rd "	65 00	
" 4th "	Miss N. M. C. Yolland	3rd "	70 00	
Goldstream	Miss M. E. Middleton	3rd "	60 00	W. Payne, Sec. (2); A. Ross (1); W. Sawyer (3); H. McKnight, Auditor.
Granby Bay, 1st Division	Miss J. L. Fotheringham	1st "	100 00	M. MacInnes, Sec. (2); M. Cranley (1); G. L. Fraser (3); M. Cranley, Auditor.
" 2nd "	Miss D. G. Bower	3rd "	80 00	
Granby Mine	Miss K. F. Haslett	3rd "	80 00	
Grande Prairie	Miss W. M. New	1st "	60 00	W. H. Jones, Sec. (1); H. E. Bedell (2); E. V. Whiting (3); L. R. Pearse, Auditor.
Granite Bay	Miss J. C. Reed	1st "	70 00	Henry Twidle, Sec. (2); E. Louma (1); A. Louma (3).
Grantham	Miss D. K. Williamson	2nd "	70 00	M. B. Ball, Sec. (3); Fred Janes (1); Frederick Swan (2); H. S. Porteous, Auditor.
Grindrod	Miss Charlotte Sutton	2nd "	70 00	Mrs. Dorothy S. Handcock, Sec. (1); Wm. Monk (2); H. Twigg (3); J. Emery, Auditor.
Half Moon Bay	Miss M. H. MacKay	2nd "	60 00	A. Newland, Sec. (3); Edward Dow (1); Thos. W. Murphy (2); Mrs. J. Lyell, Auditor.
Hall's Landing	Miss I. M. Cowherd	2nd "	75 00	Josiah Day, Sec. (1); N. F. Hall (2); W. E. Burner (3); W. T. Gregson, Auditor.
Happy Valley	Mrs. M. H. McKenzie	2nd "	60 00	Alfred Hankin, Jr., Sec. (3); G. A. Heaslip (1); Jack Bratchford (2); W. W. Winter, Auditor.
Hardy Island	Miss L. M. Wheeler	2nd "	60 00	Mrs. M. Hammond, Sec. (1); W. Wood (2); Mr. Beaton (3); L. B. Heese, Auditor.
Harewood, 1st Division	C. G. Brown, B.A.	Academic	100 00	W. H. Jones, Sec. (1); James Malpass (2); James T. Pargeter (3); Jos. Randle, Auditor.
" 2nd "	Robert Johnson	3rd Class	90 00	
3rd "	Miss Rose Devlin	1st "	80 00	
4th "	Miss M. E. Stephens	2nd "	70 00	
5th "	Miss Nora Green	2nd "	65 00	
" 6th "	Miss E. J. Cavalsky	3rd "	65 00	
" 7th "	Miss E. A. Cunningham	3rd "	65 00	
" 8th "	Miss Ethel Hodgson	1st "	65 00	
Harpers Camp	Wm. R. Jones	1st "	98 00	H. L. Walters, Sec. (2); Ben Gruhs (1); John Wann (3).
Harrogate	Miss C. E. Townsend	1st "	70 00	A. Gilbert, Sec.
Harrop	Miss N. I. McGregor	3rd "	75 00	E. Harrop, Sec. (1); E. W. Slater (2); J. J. Britton (3); J. J. Wilson, Auditor.
Hat Creek	Miss Agnes Beane	3rd "	75 00	A. Gilbert, Sec. (2); W. Hymes (1); W. H. English (3); J. V. Soles, Auditor.
Hatzic Prairie	Miss F. J. Bettes	3rd "	55 00	Mrs. R. Peacock, Sec. (1); R. Hudon (2); Mrs. A. Boucher (3).
Haysport	Miss H. A. Bradshaw	2nd "	75 00	W. E. Draney, Sec.
Hazelton	Miss M. B. Wentzel	1st "	105 00	Wm. Grant, Sec. (3); R. E. Allen (1); Mrs. Cox (2); H. H. Phillips, Auditor.
Hazelton, New	T. A. McMartin, B.A.	Academic	100 00	W. W. Anderson, Sec. (3); Robert Wall (1); G. O. Graham (2).

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

School.	Teacher.	Certificate.	Monthly Salary.	Trustees.
Headquarters	Miss Minnie Horbury	3rd Class	$ 65 00	A. M. Hilton, Sec. (2); M. M. Campbell (1); L. Savoie (3); C. W. McIver, Auditor.
Hedley, 1st Division	Miss H. M. Herkins, B.A.	Academic	100 00	S. L. Smith, Sec. (1); H. T. Jones (2); F. H. French (3); F. M. Gillespie, Auditor.
" 2nd "	Miss O. D. Borden, B.A.	"	85 00	
" 3rd "	Miss L. I. A. Inkman.	3rd Class	70 00	
Heffley Creek	Miss E. R. Austin	1st "	75 00	H. M. McDaniel, Sec.
Heffley Lake	Miss R. M. Shaw	3rd "	75 00	D. A. MacKenzie, Sec. (1); Archie MacDonald (2); J. S. Wardell (3).
Heriot Bay	Miss Marguerite Haslam	2nd "	75 00	R. J. Walker, Sec. (1); Wm. Law (2); Jas. Ford (3); J. A. Bull, Auditor.
Heydon Bay	Miss Willow Ross	Temporary	65 00	
Highland	Jas. Likeman	3rd Class	65 00	F. T. Gregory, Sec. (3); Mrs. Geo. Aikman (1); W. Dixon (2); Geo. Aikman, Auditor.
Hilborn	Miss M. M. Robertson	3rd "	85 00	
Hillier	Miss Agatha Fitzgerald	3rd "	65 00	C. W. B. Hill, Sec. (3); Mr. Pratt (1); J. J. Clarke (2); John Gebb, Auditor.
Hilltop	Miss Katharine Binney	1st "	75 00	P. L. Hagglund, Sec. (2); A. P. Holm (1); Y. Nyberg (3).
Hilton	Miss N. M. Jones	2nd "	68 00	Ed. Camagna, Sec. (2); E. Shunter (1); Alfred Hanson (3); Fred Robertson, Auditor.
Hope, 1st Division	Miss F. M. Urquhart, B.A.	Academic	75 00	Thos. E. Scott, Sec. (3); Mrs. Brown (1); W. Gray (2); F. L. Thacker, Auditor.
" 2nd "	Miss F. C. Mercer	3rd Class	60 00	
Hope Station	Miss R. B. Clegg	3rd "	65 00	F. Nicklason, Sec. (1); G. McKlaron (2); C. T. Beck (3); O. Johnson, Auditor.
Hornby Island	Miss H. E. Little	3rd "	65 00	G. J. Riches, Sec. (1); Geo. Harwood (2); Jas. Strachan (3); F. A. L. Smith, Auditor.
Horse Creek	C. H. Skelding	2nd "	85 00	Chas. Nicholson, Sec. (2); W. J. Hobert (1); Mae Penrose (3).
Hosmer	T. A. Glass	Temporary	85 00	Thos. Cole, Sec.
Houston	J. N. Muir, B.A.	Academic	75 00	
Howe Sound, 1st Division	Miss A. J. Agar, B.A.	"	100 00	C. A. Chamberlin, Sec (3); A. Winegarden (1); A. Willander (2).
" 2nd "	Miss G. B. Clower	2nd Class	75 00	
Hume, 1st Division	W. J. Eades	1st "	100 00	C. M. Young, Sec. (2); J. A. Curran (1); Wm Romain (3); R. L. Hickingbottom, Auditor.
" 2nd "	Mrs. Bibianne Williams	3rd "	80 00	
" 3rd "	Miss D. A. Wolverton	2nd "	75 00	
" 4th "	Miss C. A. Coates	1st "	75 00	
" 5th "	Miss K. L. MacKay	1st "	75 00	
Hupel	Miss F. K. Lawrence	3rd "	60 00	F. D. Abbott, Sec. (1); L. Bussiere (2); J. Simard (3).
Hurlingham	Miss M. E. Willoughby	3rd "	75 00	F. Murphy, Sec.
Huscroft	Miss Jeanne Palmer	3rd "	80 00	D. G. Lyon, Sec. (3); James Huscroft (1); J. M. Fraser (2); Mrs. Chas. Huscroft, Auditor.
Invermere	A. D. MacKinnon	3rd "	85 00	B. G. Hamilton, Sec. (1); F. C. Kenward (2); Mrs. H. Parkham (3); G. T. C. Harcourt, Auditor.
Inverness	D. J. Anderson	2nd "	85 00	R. G. Johnston, Sec. (3); F. Lacey (1); A. Bailey (2); T. MacLaughlin, Auditor.
Ioco	Miss M. E. Kneeshaw	3rd "	60 00	Robt. Winter, Sec. (3); D. M. Mairnee (1); John Park (2); W. J. Reynolds, Auditor.
Isabella Point	A. W. Cooke	2nd "	68 00	Peter Rolands, Sec. (2); Wm. Shepherd (1); Geo. Lasseter (3).
Jaffray	Miss E. B. Smith, B.A.	Academic	85 00	G. G. Hunter, Sec. (3); Andrew Rossin (1); Robt. Cameron (2); A. K. Bannerman, Auditor.
James Island	Miss A. G. Scott	2nd Class	60 00	J. W. Barker, Sec. (3); R. J. Walley (1); G. Grubb (2); N. Moore, Auditor.
Jordan River	Miss Margery McCannell	2nd "	65 00	R. R. Brown, Sec. (3); J. King (1); A. Amyes (2); D. I. Walker, Auditor.
Kaleden	Charles Turner	1st "	75 00	Frank Harrison, Sec. (3); Mrs. D. D. Lapsley (1); Mrs. O. E. Tomlin (2).
Kaleva	Mrs. A. S. Johnston	Temporary	75 00	John Pohto, Sec. (3); Abel Hamby (1); Kalle Salo (2).
Kedleston	Mrs. J. A. Asher	1st Class	68 00	Wm. Morley, Sec. (1); R. R. Jackson (2); C. R. Wilson (3); Wm. Johnson, Auditor.
Keefers	Miss O. C. Steen	3rd "	65 00	Stephen Lee, Sec. (1); John Hannah (2); Charlie Lee (3); Mrs. E. Hannah, Auditor.
Kelowna, East	Miss B. G. Thompson	2nd "	70 00	T. L. Gillespie, Sec. (2); R. Rowley (1); W. Marshall (3); J. M. Carpendale, Auditor.

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Kelowna, North	Miss Ina Sutton	2nd Class	$ 65 00	P. A. Lewis, Sec. (3); R. W. Andrews (1); Mr. Rankin (2); H. K. Todd, Auditor.
Keremeos, 1st Division	Thomas Prescott	1st "	90 00	F. B. Gibson, Sec. (1); R. C. Clarke (2); W. G. Maltice (3); W. M. Frith, Auditor.
" 2nd "	Miss Catherine Moore	1st "	75 00	
Keremeos, South	Miss Dorothea Nesbitt	1st "	70 00	R. B. Sheridan, Sec. (3); A. Milne (1); Oscar Ruig (2); L. V. Newton, Auditor.
Kettle River, North	Miss Jessie N. Campbell	3rd "	75 00	Jesse T. Fisher, Sec.
Kettle Valley	Miss P. A. Tourigny	Academic	75 00	H. A. Tanner, Sec. (1); W. A. Shillcock (2); John Walker (3); Mrs. Annie Whiting, Auditor.
Kildonan	Mrs. Annie Briand	1st Class	70 00	Fred Winters, Sec. (2); Joe Thomas (1); Eric Ferhlund (3); James Loudown, Auditor.
Killarney	Miss L. L. Mitchell	2nd "	75 00	John Clark, Sec. (3); W. Countryman (1); Frank Shook (2); T. J. Guinam, Auditor.
Kimberley	Henry Harris	3rd "	78 00	
Kingsgate	Miss H. S. Dailey	2nd "	75 00	John Dunlop, Sec. (2); Thos. Bates (1); H. L. Sawyer (3); Geo. Warren, Auditor.
Kitimat	Miss E. McL. Fleming	3rd "	80 00	F. M. Worthing, Sec.
Kitsumgallum	H. A. Ferguson	3rd "	85 00	D. A. McKinnon, Sec. (2); C. W. F. Green (1); H. L. Franks (3); W. C. Sparkes, Auditor.
Knutsford	Miss M. H. Dandy	2nd "	65 00	John Taylor, Sec. (2); Wm. Wright (1); Kenneth Drysdale (3); John Taylor, Auditor.
Koch Siding	Miss A. M. Allan	3rd "	68 00	Wm. Newell, Sec. (2); John Jameson (1); W. M. Crebin (3); E. Groom, Auditor.
Koksilah	Miss M. F. Macdonald	2nd "	70 00	Mrs. Paterson, Sec.
Kundis	Francis le Tonturier	1st "	80 00	F. J. Dunroe, Sec. (3); W. N. Toop (1); John McLellan (2).
Lac du Bois	Miss E. L. Stevenson	3rd "	70 00	Maurice Scott, Sec. (3); Arthur Nesbitt (1); Edward Reese (2).
Lac la Hache	Miss C. W. Simpson	3rd "	80 00	
Lake Buntzen	Miss E. M. Sterling	2nd "	65 00	F. Elwell, Sec. (1); G. Hansha (2); H. R. Heinrick (3).
Langford	Miss E. A. Mercer, L.L.A.	Academic	75 00	Mrs. M. Waterhouse, Sec. (1); A. Frewing (2); J. Gibson (3); James Parker, Auditor.
Lasqueti Island	Miss E. W. Teetzel	Temporary	70 00	W. B. T. Grant, Sec. (3); T. I. Weldon (1); Mrs. Williams (2); J. V. Purviance, Auditor.
Lazo	Miss E. T. Smith	2nd Class	75 00	P. L. Good, Sec. (1); Mrs. J. Knight (2); W. J. Miller (3); A. Church, Auditor.
Lillooet	Miss K. S. Poole	1st "	85 00	J. S. Bell, Sec. (1); Wm. Durban (2); D. Hurley (3); John Dunlop, Auditor.
Little Fort	John McMullan	1st "	80 00	N. Loveway, Sec. (3); J. Printyhans (1); J. Collet (2); W. S. Craven, Auditor.
Loco	Miss E. M. Gilpin	3rd "	75 00	Robt. Adam, Sec. (3); D. Sterrit (1); Ed. Taylor (2); Arthur Burge, Auditor.
Long Lake	Miss E. M. Green, B.A.	Academic	60 00	J. Bennett, Sec. (3); Geo. Weir (1); E. Lewis (2); J. W. Greenhow, Auditor.
Louis Creek	Miss E. J. Gowanlock	3rd Class	60 00	G. H. DeLey, Sec. (1); J. T. Tucker (2); A. Goudreau (3); G. Sydney, Auditor.
Lucerne	Miss G. B. Wood	2nd "	75 00	Wm. Gibson, Sec. (1); F. W. Seward (2); Thos. Young (3).
Lumby, 1st Division	N. G. Gilchrist	Academic	90 00	W. J. Shields, Sec. (2); O. Bonneville (1); W. Jackson (3); Dr. A. C. Nash, Auditor.
" 2nd "	Miss P. W. Raymer	2nd Class	60 00	
Lund	Miss M. M. Buss	3rd "	70 00	Fred. Thulin, Sec. (2); J. T. Smith (1); C. H. Franzen (3).
Lytton	Miss E. B. Whitworth	3rd "	75 00	G. B. Baillie, Sec. (1); R. Rebagliati (2); A. F. Hautier (3); H. Graham, Auditor.
Mabel Lake	Miss Dorothy Magowen	3rd "	68 00	W. G. Procter, Sec. (1); C. A. Sigalet (2); H. A. Sigalet (3); N. P. Nelson, Auditor.
Malahat	R. K. Bell	1st "	75 00	James Ford, Sec. (2); H. Hawking (1); Mrs. Wheelton (3); E. H. Clark, Auditor.
Malakwa	Miss Mildred Clark	2nd "	75 00	A. C. Carr, Sec. (1); E. Erickson (2); Mrs. J. McGlobe (3); E. Tredget, Auditor.
Malcolm Island, 1st Div	T. C. McCaughie, M.A.	Academic	100 00	Austin McKela, Sec. (1); Henry Lukk (2); J. Felix Myntti (3); Teador Tannor, Auditor.
" 2nd "	Miss Myra Bradshaw	3rd Class	75 00	
Mapes	W. H. Matheson	1st "	95 00	G. A. Mapes, Sec. (1); Mr. Bettis (2); John Hill (3).
Mara, 1st Division	Mrs. M. H. Page	1st "	70 00	Wm. Owen, Sec. (1); John Robertson (2); S. Patula (3); E. Grives, Auditor.
" 2nd "	Miss M. O. B. Cary	2nd "	60 00	
Marshall	E. J. Whittaker	Temporary	70 00	Mrs. S. D. Craig, Sec. (1); Mrs. Auddell (2); Wm. Hammond (3); M. Pellat, Auditor.
Martin's Prairie	Miss H. M. Ritchie	2nd Class	65 00	Wm. Harrison, Sec. (2); A. E. Boyde (1); R. H. Brett (3); John Matheson, Auditor.

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

School.	Teacher.	Certificate.	Monthly Salary.	Trustees.
Marysville	George Macdonald, B.A.	Academic	$ 75 00	A. G. James, Sec. (2); Paul Handley (1); Ben Keer (3); A. Mellor, Auditor.
Masset	R. N. Grubb	2nd Class	90 00	Chas. Harrison, Sec. (3); Jas. Martin (1); Fred Nash (2); F. J. Smythe, Auditor.
Mayne Island	Mrs. E. M. Goodyear	3rd "	60 00	J. W. Bennett, Sec. (2); A. Inglis (1); Mrs. J. J. Robson (3); W. M. Robson, Auditor.
Meadowbrook	Miss B. L. Newman	3rd "	70 00	Thos. Williams, Sec. (3); C. F. Conover (1); Euclid Houle (2); N. J. Palmer, Auditor.
Meadow Spur	Miss Adelaide Bool	3rd "	75 00	S. Barkley, Sec. (1); John Hill (2); W. J. Wilson (3); Mrs. J. P. Chair, Auditor.
Meadow Valley	J. J. Baker, B.A.	Academic	60 00	S. R. Darke, Sec.; Findlay Munro; B. Maynes; Mr. Lee, Auditor.
Meldrum Creek	Miss M. F. Sullivan	1st Class	85 00	C. E. Richards, Sec.
Metchosin	Miss B. H. Sargent	2nd "	65 00	H. H. Neild, Sec. (3); Wm. Witty (1); T. F. Helgeson (2); E. B. Ulph, Auditor.
Metlakatla	Miss S. L. Stone	1st "	90 00	C. F. Morrison, Sec.; Wm. Perry; C. C. Perry, Auditor.
Michel, 1st Division	W. L. Foley	3rd "	85 00	George Whiting, Sec. (1); Jos. Seigle (2); H. C. Beard (3); John Dixon, Auditor.
" 2nd "	Miss M. L. Wade	2nd "	75 00	
" 3rd "	Miss S. B. Monkley	1st "	75 00	
Michel, New, 1st Division	R. K. Cameron	2nd "	100 00	
" 2nd "	Miss E. M. Long	3rd "	75 00	
" 3rd "	Miss L. M. Baxendale	3rd "	75 00	
" 4th "	Miss M. E. Taylor	2nd "	75 00	
Midway	Miss F. M. Robbins	1st "	80 00	H. R. Brown, Sec. (1); W. H. Docksteader (2); J. G. McMynn (3); Thomas Peck, Auditor.
Mill Brook Cove	Miss B. M. E. Campbell	3rd "	65 00	Frank Hammer, Sec. (3); Miss T. Trondsen (1); Miss S. Valk (2).
Mill Creek	Miss C. L. I. Nicholles	3rd "	60 00	G. B. Hopper, Sec. (2); C. Waldron (1); Geo. Craig (3); J. Collignetti, Auditor.
Minto, 1st Division	F. W. Moore, B.A.	Academic	85 00	Thomas Pearse, Sec. (2); Jas. Monks (1); Mr. Morgan (3).
" 2nd "	Miss A. L. Reese	2nd Class	70 00	
Mirror Lake	Miss E. G. Hanna	2nd "	75 00	Adam Link, Sec. (3); Geo. Watson (1); N. J. Read (2).
Mission Creek	Miss H. M. McArthur	2nd "	70 00	W. A. Scott, Sec. (3); T. G. Speer (1); R. S. Hall (2); G. A. Fisher, Auditor.
Moberly	Miss Ethel O'Bannon	Temporary	80 00	G. W. Hartley, Sec. (1); J. P. Bergenham (2); Nels Hulberg (3); J. G. Gilbert, Auditor.
Model Farms	Miss C. R. May	2nd "	75 00	F. Page, Sec. (2); M. Spratt (1); W. Meaker (3).
Monte Creek	Miss Theresa McKenna	3rd "	60 00	Mrs. A. Smith, Sec. (3); F. Wilkinson (1); Mrs. Teagle (2); J. M. Kinnear, Auditor.
Montrose	Miss M. E. Hardy	2nd "	68 00	Jas. Craig, Sec. (1); Andrew McNeil (2); S. Dawson (3); C. R. Hardy, Auditor.
Morrissey	Mrs. K. R. Lotito	Temporary	70 00	Louis Lavorato, Sec.; Wm. Lopiter; P. Shernyske; R. Anselmo, Auditor.
Morrissey Mines	Miss R. F. Cooper	"	70 00	Thos. Nelson, Sec. (3); H. Harrison (1); F. C. Wildman (2); E. Brown, Auditor.
Mountain	Miss F. E. Kenyon	2nd Class	75 00	A. J. McMillan, Sec. (1); Jos. Ballance (2); Jno. Gribble (3); W. T. Haughan, Auditor.
Mount Ingersoll	Mrs. M. T. Morrison, B.A.	Academic	75 00	Miles Yingling, Sec. (1); J. Williams (2); A. J. Graham (3); Jno. Gardner, Auditor.
Moyase	Miss M. E. Jones	3rd Class	65 00	A. J. Miller, Sec. (2); G. Hannant (1); Mrs. C. W. West (3).
Moyie, 1st Division	Miss M. L. Lewis	2nd "	75 00	R. A. Smith, Sec. (2); M. J. Bonner (1); A. J. Smith (3).
" 2nd "	Miss K. L. Baker	2nd "	60 00	
Myncaster	H. W. Warner	2nd "	75 00	
Macalister	Mrs. B. Hutchison	2nd "	85 00	W. H. Edmonds, Sec. (3); Wm. Smith (1); Wm. Stewart (2); Mrs. Jas. Macalister, Auditor.
McBride	J. C. Brannick	3rd "	100 00	Thos. R. Lloyd, Sec. (1); Edward Taggart (2); Walter Willis (3).
McGuire	T. L. Davies, B.A.	Academic	75 00	H. W. McGuire, Sec.
MacKenzie	Miss A. B. Balkwill, B.A.	"	80 00	O. T. Landry, Sec. (2); Mrs. E. Clayton (1); Chas. Tucker (3); J. M. Macfarlane, Auditor.
Nakusp, 1st Division	R. C. Warden	2nd Class	90 00	R. A. Quance, Sec. (2); Thos. Abriel (1); E. W. Somers (3); L. J. Edwards, Auditor.
" 2nd "	Miss Miriam Chandler	3rd "	75 00	

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

School.	Teacher.	Certificate.	Monthly Salary.	Trustees.
Nanaimo Bay, 1st Division	Oswald Wardill	2nd Class	$ 90 00	George Moore, Sec. (2); Robt. Dobeson (1); Peter Gordon (3); Robt. Jacobs, Auditor.
" 2nd "	Miss Tryphena Sampson	1st "	75 00	
Nanoose Bay	Miss M. C. Rath	3rd "	68 00	Fred Cross, Sec. (3); A. Guellett (1); W. Roberts (2); Mr. Claudet, Auditor.
Naramata, 1st Div.	T. H. Rayner, B.Sc.	Academic	90 00	T. H. Boothe, Sec. (1); Mrs. M. M. Allen (2); Mrs. E. H. Handcock (3); George Wolstencroft, Auditor.
" 2nd "	Miss M. H. Walker	3rd Class	65 00	
Nechako	Miss Beatrice Smith	Temporary	75 00	T. H. McMillan, Sec.; Jno. McIntosh; R. J. Redmond; T. Jones, Auditor.
Needles	E. L. Bice	3rd Class	75 00	M. P. Kay, Sec. (2); J. Hallbaner (1); Robt. Shield (3); Geo. Heaton, Auditor.
New Denver, 1st Division	R. H. L. Girling, B.A	Academic	100 00	L. W. Sells, Sec. (1); T. H. Hoben (2); T. J. Lloyd (3); Jno. Jewitt, Auditor.
" 2nd "	Miss E. M. Doherty	1st Class	65 00	
Nickel Plate	Miss N. L. Dill	2nd "	70 00	H. Messenger, Sec.
Nicola	Marjorie I. Fadden	2nd "	70 00	V. Harbord, Sec. (3); W. E. Potter (1); Duncan Currie (3); B. Stewart, Auditor.
Nicola, Lower	Miss C. M. Rumbley	3rd "	70 00	R. Whitaker, Sec. (3); T. Williams (1); D. Dodding (2); J. W. Langley, Auditor.
Nicomen	Miss Ethel Moscrop	1st "	65 00	H. C. Ross, Sec. (1); A. S. Worth (2); C. Snodgrass (3); H. Miller, Auditor.
Nicomen, North	Miss M. B. Paterson	3rd "	70 00	Jas. F. Harris, Sec. (2); Mrs. E. Deroche (1); D. E. Welcher (3); Wm. Murray, Auditor.
Nimpkish	C. B. Christensen	3rd "	70 00	Isaac Langvist, Sec. (3); ——, 1; ——, 2; Mike Snokka, Auditor.
Nine-mile Creek	Miss F. E. Hamill	2nd "	60 00	A. G. Lang, Sec. (2); Matthew Hill (1); D. E. Wick (3); Alfred Symonds, Auditor.
Nob Hill	Miss G. C. Wright	3rd "	70 00	Walter Gage, Sec. (1); J. Hawkins (2); R. Radford (3); G. Butchers, Auditor.
North Bend, 1st Division	Miss L. A. St. James, B.A.	Academic	75 00	Charles Haines, Sec. (1); E. B. Richardson (2); Hammond Gowen (3); John Firkins, Auditor.
" 2nd "	Miss C. A. A. Robinson	2nd Class	60 00	
Northfield, 1st Division	W. S. Fox	1st "	85 00	J. McIntyre, Sec. (2); J. Leighton (1); H. Fearn (3); F. S. Martin, Auditor.
" 2nd "	Miss Annie Kenyon	2nd "	70 00	
North Thompson, West	Mrs. C. H. Inskip	2nd "	65 00	Leonard Hoover, Sec. (1); G. Henchel (2); W. Y. McLeod (3); D. McLean, Auditor.
Notch Hill, 1st Division	Joseph Gagnon, B.Sc.	Academic	75 00	J. W. Ashton, Sec. (3); W. R. Chamberlain (1); W. T. Holmwood (2); C. Wisenfold, Auditor.
" 2nd "	Miss Charlotte Hayes	3rd Class	65 00	
No. 7 Mine, 1st Division	Miss Cassie Fitzgerald	Temporary	85 00	W. Weir, Sec. (3); H. Buchanan (1); James Taylor (2); R. L. Murray, Auditor.
" 2nd "	Miss Hannah Harrison	2nd Class	70 00	
Ocean Falls	Miss Amy Griffiths, B.A.	Academic	80 00	Dr. John Christie, Sec.
Okanagan	Miss A. M. Hunter	2nd Class	70 00	Alexander Reid, Sec. (1); W. P. Peterman (2); C. E. Weeks (3); A. Patterson, Auditor.
Okanagan Centre	Miss Lucy Faircloth	3rd "	68 00	J. A. Gleed, Sec. (1); R. Purves (2); F. C. Copeland (3); W. Grant, Auditor.
Okanagan Falls	Miss S. F. Howard	3rd "	70 00	W. B. Hine, Sec. (3); W. W. Craig (1); R. B. Bassett (2); R. Hody, Auditor.
Okanagan Landing	Miss A. V. Hall	Academic	70 00	P. W. Welch, Sec. (2); R. Curtis (1); M. Donaldson (3); E. T. Leslie, Auditor.
Okanagan, South	Miss J. C. Jardine	2nd Class	75 00	W. D. Hobson, Sec. (1); W. Walker (2); C. Marty (3).
Okeover Arm	Miss M. E. I. Williams	3rd "	60 00	S. L. Vaughan, Sec. (3); J. Oscar Roos (2); Elmer H. Roedel, Auditor.
Olalla	Mrs. K. E. Love	3rd "	77 00	Jos. Marsel, Sec. (3); Mrs. Chase (1); John Himmell (2); G. S. Landon, Auditor.
Olsen Lake	Miss V. D. Gay	3rd "	65 00	Otto Losser, Sec. (3); Albert Guichard (1).
Ootsa Lake	Miss M. L. Lowther	3rd "	75 00	W. P. Boden, Sec. (3); R. Nelson (1); W. H. Harrison (2); J. Shelford, Auditor.
Osland	Miss C. A. M. Macdonald	3rd "	75 00	T. J. Davidson, Sec.
Otter Point	Miss I. S. Hamilton	2nd "	60 00	Harry Seaton, Sec. (3); T. J. Robinson (1); Henry Clark (2); H. T. Dodds, Auditor.
Oyama 1st Division	Miss B. E. Irvine	3rd "	75 00	S. S. Towgood, Sec. (3); D. H. McLure (1); J. H. Irvine (2); F. A. Rimmer, Auditor.
" 2nd "	Miss H. D. Jones	3rd "	55 00	
Oyster	Miss F. E. Keeping	3rd "	73 00	John Bain, Sec. (1); Stephen Jackman (2); Mrs. H. H. Southen (3); Frank Reid, Auditor.
Oyster, North	Miss B. M. Tranfield	2nd "	80 00	Parker Williams, Sec. (2); Gus Perry (1); Geo. Cassidy (3); J. Adshead, Auditor.

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

School.	Teacher.	Certificate.	Monthly Salary.	Trustees.
Pachelqua	Herbert Boothman	Temporary	$ 75 00	Wm. L. Dickey, Sec. (1); O. Swarts (2); Baptiste la Rochelle (3).
Pacific	A. L. Wheeler	Academic	75 00	W. J. Taper, Sec.; E. H. Fagerlund; Thos. H. McCubbin.
Parks Siding	Miss D. C. Smiley	3rd Class	65 00	W. Hollingsworth, Sec. (1); J. P. Bell (2); Mrs. Fair (3); W. A. Bustin, Auditor.
Parksville	Miss D. G. Burrell	1st "	70 00	E. D. Thwaites, Sec. (3); P. Rushton (1); M. T. Phillips (2); T. T. M. Custance, Auditor.
Parson	Miss E. R. Sparling	2nd "	70 00	F. Page, Sec.; J. Young; A. H. Soles; F. G. Ball, Auditor.
Pavilion	Miss May Simpson	3rd "	75 00	W. B. Belond, Sec.
Pemberton Meadows	Miss Margaret Mellish	2nd "	60 00	John Ronayne, Sec. (2); George Thompson (1); Edwin Harris (3).
Pemberton Range	J. C. Slater	2nd "	65 00	R. J. Denney, Sec. (3); W. Normand (1); W. Warren (2); Jas. Campbell, Auditor.
Pender Harbour	Miss M. A. Mack	3rd "	60 00	R. Edwards, Sec. (2); C. Clough (2); L. Carr (3); C. R. Heeley, Auditor.
Pender Island	Miss D. R. MacDonald	3rd "	65 00	A. H. Menzies, Sec. (1); S. P. Corbett (2); J. A. Brackett (3); R. S. W. Corbett, Auditor.
Perry Siding	A. C. Vance	3rd "	75 00	E. W. Downey, Sec. (2); J. Graham (1); C. L. Cummings (2); I. F. Bird, Auditor.
Pinanton	Miss Annie Charnley	2nd "	70 00	J. A. Graham, Sec. (3); J. B. Stewart (1); J. Botta (2); Mrs. Johnston, Auditor.
Porcher Island	Charles Leys, M.A.	Academic	85 00	
Port Clements	Miss A. L. Tingley	1st Class	85 00	A. R. Mallory, Sec. (3); David Crocker (1); Mrs. A. C. Cross (2); E. J. Tingley, Auditor.
Port Hardy	P. K. Cunningham	3rd "	80 00	Mrs. Jeannie Fenton, Sec. (1); F. K. Hicklenton (2); A. E. Smith (3); D. M. Lyon, Auditor.
Port Renfrew	Reginald Sweetland	Temporary	65 00	T. M. Baird, Sec.; G. H. Swanison; D. B. Buck.
Port Washington	Miss S. T. Mason, L.L.A.	Academic	60 00	S. Percival, Sec. (2); Miss D. Outram (1); W. Grimmer (3); F. Moore, Auditor.
Pouce Coupe	Miss Winifred Fairman	Temporary	100 00	Agnes Lineham, Sec. (3); C. M. Barrett (2); Allen Yates (3).
Pouce Coupe, North	Miss C. E. Braden	"	100 00	Ira D. Vanderwater, Sec. (2); G. K. Tower (1); M. Coon (3); B. Pierce, Auditor.
Powell River, 1st Division	H. E. Murray	2nd Class	100 00	Andrew Henderson, Sec. (2); Andrew McKinnen (1); Wm. McBain (3); Robt. M. Barham, Auditor.
" 2nd "	Miss M. A. McLauchlan	Temporary	85 00	
" 3rd "	Miss F. D. Lynch	"	75 00	
" 4th "	Miss L. H. Ternan	3rd Class	65 00	
" 5th "	Miss S. E. McKnight	3rd "	60 00	
Princeton, 1st Division	Miss H. E. Beattie, B.A.	Academic	80 00	H. Clark King, Sec. (1); J. Gellattey (2); H. Hunter (3); Ernest Waterman, Auditor.
" 2nd "	Miss C. P. Murray	2nd Class	75 00	
" 3rd "	Miss Ferne Warne	Academic	75 00	
" East	Miss M. R. Beattie	"	75 00	
Procter	Miss Margaret McKay	Temporary	70 00	A. G. Gallup, Sec. (2); G. T. Snow (1); Wm. H. Smellie (3); T. A. Bean, Auditor.
Qualicum Beach, 1st Div.	Miss M. A. Fraser	2nd Class	80 00	H. W. Hurst, Sec. (2); F. C. Jones (1); Geo. Aldous (3); Mr. Marsh, Auditor.
" 2nd "	Miss F. M. Dougan	2nd "	60 00	
Qualicum, Little	J. J. MacKenzie	Temporary	70 00	Thos. Kinkade, Sec. (1); Thos. Cook (2); S. F. Smythe (3).
Quatsino	N. O. Keith	3rd Class	80 00	T. J. A. Green, Sec. (2); O. A. Sherberg (1); B. W. Leeson, Auditor.
Queen Charlotte	Miss E. M. Lauder	2nd "	90 00	John L. Barge, Sec. (1); D. Cochrane (2); W. J. Smith (3); G. D. Beattie, Auditor.
Quesnel, 1st Division	Mrs. J. A. Maclure	2nd "	110 00	Alfred S. Vaughan, Sec. (2); A. W. Cameron (1); J. A. Fraser (3); R. A. Chester, Auditor.
" 2nd "	Miss E. B. Nicholson	2nd "	80 00	
Ray Lake	Mrs. Sarah Williams	Temporary	60 00	Wm. F. Quinville, Sec. (2); Robt. Steffens (1); Ralph Phelps (3).
Refuge Cove	A. M. Stephen	"	60 00	Mrs. B. M. Black, Sec. (2); Mrs. E. Gose (1); Mrs. N. McGuffie (3).
Reiswig	Miss E. C. Simpson	3rd Class	65 00	Wm. Gemmill, Sec. (3); Geo. Montgomery (1); Cecil Morris (2); Wm. Craig, Auditor.
Renata	John Williams, B.A.	Academic	75 00	I. Wiebe, Sec. (2); Wm. Kochanink (1); F. W. Nash (3); P. H. Freeser, Auditor.
Retreat Cove	Edward Livingstone	Temporary	60 00	A. W. McLure, Sec. (2); H. L. Peterson (1); J. Cook (3).

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Richlands	J. E. Williams, B.A.	Academic	$ 65 00	W. F. Darrow, Sec. (3); F. Werniche (1); H. C. Beaver (2); F. Hoon, Auditor.
Riondel	Mrs. M. J. Norris	2nd Class	70 00	S. S. Fowler, Sec.; S. McDougall (3).
Roberts Creek	Mrs. E. G. Orange	1st Class	75 00	John Reeves, Sec. (2); W. A. Woodyard (1); J. Batt (3); Geo. T. Walker, Auditor.
Robin's Range	Miss H. C. Harold	3rd "	60 00	John Howe, Sec. (2); E. W. Hall (1); W. Wawn (3); Mrs. Hardacre, Auditor.
Robson	Miss W. C. Johnson	2nd "	75 00	Jos. Johnson, Sec. (1); G. R. Brown (2); H. P. Golden (3); A. D. Clyde, Auditor.
Rock Bay	Miss Margaret McCallum	Temporary	70 00	Mrs. M. A. DesBrisay, Sec. (1); P. Farrie (2); Mrs. Jas. Shortreed (3); J. W. Barnes, Auditor.
Rock Creek	D. P. O'Connell	"	75 00	Mrs. B. E. Pittendrigh, Sec. (3); I. View (2); John Caldwell (2); Henry Nicholson, Auditor.
Rocky Point	Miss Mildred Chrow	2nd Class	60 00	Mrs. Kathleen M. Cann, Sec. (1); Geo. Ball (2); Thos. Parker (3); Albert Rhode, Auditor.
Roe Lake	Miss E. M. Champion	3rd "	75 00	Frank Hansen, Sec. (1); John Bondrack (2); C. Smith (3); Ed. Higgins, Auditor.
Roosville	Miss E. B. Paterson	2nd "	80 00	Geo. Dingsdale, Sec.; Mrs. Fred Roe; Chas. Stephenson.
Rosebery	Miss M. H. McKeen, B.A.	Academic	75 00	Thos. Brown, Sec. (2); Paul Wood (1); John Teir (3).
Rose Hill	Miss A. M. Winkel	2nd Class	65 00	J. H. Dayton, Sec. (2); Angus McKay (1); Geo. Bath (3); H. R. Hollis, Auditor.
Round Top	Miss J. U. Corbett	2nd "	75 00	Charles Cleaveley, Sec.; B. T. Foote; J. G. Hindmarch, Auditor.
Royston	Miss M. S. Watts	1st "	65 00	David Roy, Sec. (2); A. Fouracre (1); Chas. M. Simms (3); C. M. Houghton, Auditor.
Rutland, 1st Division	Miss S. R. Quinn	1st "	95 00	Thomas Barber, Sec. (3); Geo. Monford (1); W. H. Fleming (2); Wm. Gay, Auditor.
" 2nd "	Miss E. L. Magee	3rd "	70 00	
" 3rd "	Miss K. M. Faris	Temporary	60 00	
Saanich, North	Miss E. M. Morley	1st Class	75 00	Alex. McDonald, Sec. (1); Geo. Clark (2); Mrs. C. White-Birch (3); R. R. Wilkinson, Auditor.
Sahtlam	Miss O. L. Bossi	3rd "	65 00	Jos. E. Jordan, Sec. (2); Daniel Currie (1); John Currie (3).
St. Elmo	George Greenwood	3rd "	65 00	Mrs. D. R. McKay, Sec. (3); J. A. Long (1); Mrs. Anderson (2); Mrs. G. W. Pousett, Auditor.
Salmo, 1st Division	J. A. Scutt	1st "	80 00	Geo. A. Kennington, Sec. (2); Geo. D. Bell (1); Wm. McIntosh (3); W. H. Cawley, Auditor.
" 2nd "	Miss H. P. Dougherty	1st "	70 00	
Salmon River	Miss Edith Olts	2nd "	70 00	W. J. Andrews, Sec. (1); A. R. Fowler (2); S. Linton (3); A. Curtis, Auditor.
Salmon Valley	Miss V. I. McTavish	3rd "	75 00	Sidney Scott, Sec. (1); Wm. Petrie (2); A. G. Haywood (3); R. McDonald, Auditor.
Sandspit	Miss M. B. Henderson, B.A.	Academic	90 00	J. Mathews, Sec. (1); R. H. Cole (2); Mrs. Wm. Woods (3); Capt. J. B. Gillatt, Auditor.
Sandwick	Miss R. C. Downey	3rd Class	80 00	L. R. Cliffe, Sec. (2); Mrs. T. Woods (1); Mrs. A. Hogg (3); Mrs. W. H. Grieve, Auditor.
Saskatoon Creek	Miss A. Ligertwood, L.L.A.	Academic	100 00	A. W. Harper, Sec. (1); P. McKinnon (2); M. Newby (3); Mr. Shepherd, Auditor.
Savary Island	Miss F. H. S. Stephen	1st Class	60 00	W. A. Mace, Sec. (1); L. Anderson (2); A. L. McKillop (3); A. W. Spilsbury, Auditor.
Savona	Miss G. I. House	3rd "	60 00	L. Leighton, Sec.
Sayward	Miss M. G. Johnson	3rd "	80 00	A. J. Hern, Sec. (2); A. E. Arnold (1); H. O. Sacht (3); Hugh Jamieson, Auditor.
Sechelt	Miss G. A. Tidy	3rd "	65 00	Thomas J. Cook, Sec. (1); Mrs. J. Nixon (3).
Seton Lake Creek	Miss I. S. Street	3rd "	73 00	John Dunlop, Sec. (3); F. H. Kinder (1); J. R. Arthur (2); W. R. Bellamy, Auditor.
Seymour Arm	Mrs. C. G. Lister	1st "	75 00	Carl Collings, Sec. (1); Geo. Alison (2); J. Robillard (3); Jas. Hislop, Auditor.
Shaw Cove	Mrs. Gertrude Keen	Temporary	65 00	Mrs. S. Bisset, Sec.; Mrs. S. Lloyd; Mrs. Kleven.
Shawnigan	John King	3rd Class	75 00	W. H. Lowe, Sec. (1); D. C. Barry (2); F. C. Morris (3); T. P. Barry, Auditor.
Shirley	Miss I. M. Burnes	2nd "	65 00	P. E. Clark, Sec. (3); E. Clark (1); E. T. Arden (2); H. Campbell, Auditor.
Shoreacres	Miss R. M. MacDonald	1st "	75 00	J. M. Shepley, Sec. (3); R. C. Passmore (1); Geo. Hemming (2); Robert Oliver, Auditor.
Shuswap	Miss I. D. G. Irwin	2nd "	65 00	Geo. A. Colburn, Sec. (3); A. E. Sharpe (1); A. G. Talbot (2); L. C. Byers, Auditor.
Shuswap Falls	Miss A. M. Fuhr	3rd "	65 00	F. C. Warner, Sec. (1); J. Sigalet (2); G. Warner (3); G. Dingate, Auditor.
Shuswap, North	Miss E. C. Cook	3rd "	68 00	Alex. Flather, Sec. (1); Jos. Brown (2); Chas. J. Blake (3); R. P. Gibson, Auditor.
Shutty Bench	Miss O. E. Tapanila	2nd "	70 00	A. T. Taylor, Sec. (1); A. Shutty (2); P. Khole (3); John Khole, Auditor.
Sicamous	Miss V. E. I. Procunier	2nd "	70 00	J. W. Tordoff, Sec. (1); T. Renwick (2); Mrs. H. Mitchell (3); W. K. Finlayson, Auditor.

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Sidney, 1st Division (Sup.).	Miss D. J. Hay	1st Class	$ 80 00	Mrs. J. F. Simister, Sec.; H. Brethour; H. A. McKillican; Geo. F. Smith, Auditor.
" 2nd "	Miss Ilace Terry	2nd "	70 00	
" 3rd "	Miss W. J. Ross	2nd "	70 00	
Silver Creek	Miss B. L. Monteith	2nd "	60 00	Jay M. Haines, Sec. (1); D. G. Eaton (2); Mrs. J. Rowerddale (3); C. E. Woodbridge, Auditor.
Silverton, 1st Division	Edward Sparkes	1st "	105 00	John J. Kelly, Sec. (1); F. F. Liebscher (2); Wm. Hunter (3); J. M. W. Tingling, Auditor.
" 2nd "	Miss K. M. Wilmot	3rd "	70 00	
Similkameen	Miss Eunice Sewell	3rd "	80 00	D. McCurdy, Sec.
Simpson	Miss R. A. Raftery	3rd "	80 00	John Flewn, Sec.
Sinclair	Miss J. M. Richards	3rd "	75 00	D. Brown, Sec.
Sirdar	Miss E. F. Arrowsmith	3rd "	80 00	W. D. Tuohey, Sec. (2); Mrs. A. R. Swanson (1); Mrs. C. M. Sloasby (3).
Sisters Creek	Miss O. M. Aird	2nd "	85 00	
Skidegate	R. A. Anderson	1st "	85 00	A. G. Gordon, Sec. (2); Geo. Carmichael (1); Mrs. Stevens (3); A. Cromp, Auditor.
Skookumchuck	Miss Dorothy McDougall	3rd "	65 00	Geo. Rae, Sec. (1); Mrs. Janet Whyte; George Vaughan.
Slocan Junction	Miss G. L. Clyde	2nd "	75 00	T. A. Wheildon, Sec. (3); W. B. Melneczuk (1); O. W. Humphrey (2); C. Gray, Auditor.
Smithers	Miss E. E. Middleton	3rd "	100 00	Walter Noel, Sec. (1); W. R. Egglestone (2); C. L. Wilcocks (3); O. A. Ragstad, Auditor.
Soda Creek	C. B. Wood, B.A.	Academic	95 00	Mrs. A. Houston, Sec. (2); Mrs. J. H. Roberts (1); Dr. Hoops (3); R. W. Lang, Auditor.
Solsqua	Mrs. C. M. Aubrey	2nd Class	70 00	R. Macpherson, Sec. (2); F. J. Bossley (1); F. E. Bossley (3); W. R. Hillyer, Auditor.
Sooke	Miss G. G. McLennan	2nd "	65 00	C. A. Helgesen, Sec. (1); R. J. Mugford (2); W. B. Charters (3); John Murray, Auditor.
Sooke Harbour	Miss H. G. Hammill	3rd "	55 00	W. Shawyer, Sec. (3); H. Gent (1); I. Doran (2).
Sorrento	Miss M. S. Johnson	3rd "	73 00	Mrs. C. C. Davidson, Sec. (3); Chas. Coubeau (1); W. S. Mitchell (2); W. Syson, Auditor.
Spences Bridge	Samuel Moore, B.A.	Academic	55 00	A. Clemes, Sec. (3); T. Curnon (1); Mrs. J. A. Teit (2).
Squaw Bay	Miss F. M. Nesbit	2nd Class.	70 00	Chas. Todd, Sec. (2); Mrs. M. Denery (1); Wm. Davidson (3).
Squamish	F. W. Young, B.A.	Academic	85 00	Henry Judd, Sec. (3); A. P. Bamfield (1); Chas. Schoonover (2); John Edwards, Auditor.
Squamish, Lower, 1st Div.	Miss L. L. Smith, B.A.	"	90 00	E. S. Reeve, Sec. (3); R. MacKenzie (2); J. D. Fraser, Auditor.
" " 2nd "	Miss G. I. Lawson	1st Class	70 00	
Squirrel Cove	Miss Florence Stern	2nd "	65 00	D. Forrest, Sec.; Mrs. Huck; W. L. Barrett.
Standard Mine	Miss Annie Brockman	Temporary	70 00	Jas. McKinnon, Sec. (1); Thos. Crowe (2); James Moir (3); E. A. Patrequim, Auditor.
Stellaco	Miss M. K. Morrow	2nd Class.	80 00	John Braithwaite, Sec. (2); E. S. Peters (1); H. Brindamour (3).
Stewart	Donald Davidson	3rd "	110 00	W. Cameron, Sec. (2); J. B. Bernaichez (1); D. J. Rainey (3); P. S. Jack, Auditor.
Sullivan Valley	Miss H. L. Winterbottom	2nd "	73 00	P. H. Lyon, Sec.; T. H. Lawrence (3); A. Crashaw, Auditor.
Sunnybrae	Miss Rose McKenna	3rd "	65 00	C. W. Moberley, Sec. (2); G. F. Moberley (1); G. G. Moberley (3); J. Brook, Auditor.
Sunnyside	Miss E. H. Hutchison	2nd "	65 00	J. F. Bawtinhimer, Sec. (2); T. W. Pollard (1); A. Mills (3); Mr. Gibson, Auditor.
" No. 2	Mrs. M. E. Rothwell	Temporary	60 00	T. Knowles, Sec.; F. Tugwell; S. Smith; Hugh Deenster, Auditor.
Swift Creek	Miss P. M. Orser	3rd Class	65 00	John Bocz, Sec. (2); Joe Lynch (1); A. Coutuve (3); J. Bogardus, Auditor.
Syringa Creek	G. A. Hunter	3rd "	75 00	L. T. Quance, Sec.; W. H. Wheeley; Mr. Hirst.
Taft	Miss F. E. Lawrence	2nd "	70 00	B. A. Firth, Sec. (3); P. Storey (1); Mrs. W. A. Young (2).
Tappen Siding	Mrs. E. M. Stirling	3rd "	70 00	J. A. Carlin, Sec. (2); Albert Gardner (1); H. Robinson (3); Mrs. I. R. Rulley, Auditor.
Tappen Valley	Miss Margery Preston	3rd "	65 00	C. H. Brooke, Sec. (3); Wm. Rogers (1); J. Woollett (2); T. Sweeten, Auditor.
Telegraph Creek	J. R. Fournier	3rd "	105 00	J. F. Calbreath, Sec. (1); W. O. Fraser (2); J. C. Boyd (3).
Telkwa	H. Caldwell	Temporary	75 00	F. M. Dockrill, Sec. (2); E. M. Hoaps (1); R. M. Burns (3); B. M. Hoaps, Auditor.
Three Forks	Wallace Dainard	2nd Class.	75 00	J. W. Murhard, Sec. (1); A. Fletcher (2); A. G. Butthro (3).
Three Valley	Mrs. T. H. Jacques	Temporary	75 00	A. Rutherford, Sec. (2); I. Morgan; A. Wilson.

TABLE C.—Public School Teachers and Trustees during 1916-1917.—*Continued.*

Rural and Assisted Schools.—Continued.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Thrums	Mrs. May Mansfield	3rd Class	$ 85 00	A. E. Richards, Sec. (2); P. Abrossinoff (1); W. Montgomery (3); Frank Tarry, Auditor.
Thurlow Island	Miss Eunice D. Brice	2nd "	75 00	H. C. Gwynne, Sec. (3); P. McDonald (1); J. McK. Forrest (2).
Tranquille	Miss L. M. Terhune	1st "	70 00	Dr. C. H. Vrooman, Sec. (2); Ed. Cooney (1); Mrs. E. Cooney (3); D. W. Stranchan, Auditor.
Trapp Lake	Miss M. L. Curtis	2nd "	65 00	A. G. White, Sec. (3); C. Lodge (1); J. C. Newell (2).
Trout Creek, Upper	J. W. Harris	1st "	65 00	F. A. Miller, Sec. (2); T. H. Hocking (1); R. M. H. Turner (3); H. A. Solly, Auditor.
Trout Lake	Mrs. E. H. Macpherson, B.A	Academic	80 00	W. A. Foote, Sec.
Tulameen	Miss W. M. Marquart	2nd Class	78 00	Thos. Rabbitt, Sec. (1); J. A. Schubert (2); Wm. Britton (3); Mrs. Andrew Jansen, Auditor.
Turtle Valley	Miss B. M. Dobson	1st "	70 00	G. G. Chase, Sec. (2); T. Coburn (1); J. Baillie (3); P. McBryan, Auditor.
Ucluelet	Mrs. A. G. Lyche	1st "	78 00	Thos. Tugwell, Sec. 2); Chris Olsen (1); Edwin Lee (3); James Turner, Auditor.
Ucluelet Arm	A. E. Eckhardt	2nd "	75 00	J. H. Mawson, Sec. (2); Geo. Grant (1); Mrs. Darling (3); J. A. Hutchinson, Auditor.
Ucluelet, East	Miss L. M. Nowlan, B.A	Academic	75 00	Mrs. H. Whipp, Sec. (2); A. H. Dawson (1); A. A. Breal (3); R. L. Johnson, Auditor.
Union Bay, 1st Division	Miss Rose Milligan	2nd Class	88 00	W. Haggart, Sec. (3); Geo. Booth (1); Jno. Fletcher (2); Geo. C. Campbell, Auditor.
" 2nd "	Miss E. C. Russell	1st "	68 00	
Valdes Island	Miss Theodora Spencer	1st "	75 00	
Vananda, 1st Division	S. W. Code, B.A	Academic	80 00	Harry Carter, Sec. (2); Mrs. Geo. Brister (1); Mrs. H. Price (3); Geo. Brister, Auditor.
" 2nd "	Miss E. M. Brown	3rd Class	70 00	
Vanderhoof	Miss Mary McCallum	Temporary	80 00	J. Z. Ruttan, Sec.
Vargas	Mrs. Helen Carolan	1st Class	70 00	Henry Hilton, Sec. (1); Mrs. F. Hopkins.
Vesuvius	Miss F. H. Burns	3rd "	65 00	John Henry, Sec. (1); Mrs. E. Bastin (2); C. E. Barker (3); A. Walter, Auditor.
Vesuvius, North	A. J. W. Dodds, B.A	Academic	60 00	J. J. Akerman, Sec. (3); Mr. Tripp (1); W. McFadden (2); Chas. W. Palmer, Auditor.
Waldo, 1st Division	Miss M. G. Thompson	2nd Class	80 00	Wyndham Madden, Sec. (1); T. Verhoef (2); J. Ross (3); J. Klein, Auditor.
" 2nd "	Miss V. A. Hamill	2nd "	60 00	
Walhachin	A. S. Towell	3rd "	65 00	Mrs. I. Bennie, Sec. (3); Mrs. Faucault (1); W. H. Hemmings (2); G. H. T. Edwards, Auditor.
Wanklyn	Miss G. M. Carson	Temporary	70 00	Gust Soderholm, Sec.; Miss Ellen Mennie; Mrs. Margaret Coch.
Wapta	Miss F. E. Hall	3rd Class	85 00	T. H. Bingham, Sec. (3); P. Johnstone (1); C. Haynes (2); Wm. Smith, Auditor.
Wardner	Miss V. M. Martin	2nd "	85 00	Ole Holmes, Sec. (2); John Lawson (1); Dan McGuiness (3); V. Lundborn, Auditor.
Wasa	Miss Margaret Turnbull	Temporary	85 00	H. W. Barr, Sec. (3); J. H. Quartley (1); W. S. Cameron (2); W. S. Bush, Auditor.
Waterloo	Miss Mary Glenn	2nd Class	60 00	E. G. Vowles, Sec. (2); A. McKay (1); Wm. Cameron (3); A. McKay, Jr., Auditor.
Watmore	Mrs. F. B. Noakes	3rd "	68 00	Fred. Carr, Sec. (1); Phil DeLeenbeer (2); W. P. Pritchard (3).
Wellington, 1st Division	Miss J. H. Loudon	2nd "	88 00	A. W. Rolston, Sec. (2); Jas. Loudon (1); Jas. Rumsley (3); J. G. McKee, Auditor.
" 2nd "	Miss C. R. Peterson	2nd "	65 00	
Wellington, South, 1st Div.	S. O. Harries	1st "	100 00	Jas. E. Parrott, Sec. (3); J. Atkinson (1); Robt. Plaskett (2); Thos. Robson, Auditor.
" " 2nd "	Wm. de Macedo	2nd "	90 00	
" " 3rd "	Miss F. T. Down	1st "	80 00	
" " 4th "	Miss Agnes Waugh	2nd "	70 00	
Westbank Townsite	Miss F. E. Weeks	2nd "	60 00	W. Brown, Sec. (2); W. G. Gore (1); C. Bubb (3); W. J. Last, Auditor.
Westview	Miss F. R. Evans	3rd "	60 00	Henry Alkinson, Sec. (3); A. Waldon (1); Clarence McKenzie (3); A. Fraser, Auditor.
Whaletown	Clarence J. Frederickson	2nd "	75 00	N. T. Thompson, Sec. (3); W. L. Barrett (1); D. McDonald (2); W. W. James, Auditor.
Whatshan	James Sutherland	1st "	100 00	P. H. Wiebe, Sec. (1); D. L. Toews (2); J. W. Reinier (3); P. P. Weibe, Auditor.
Wheeler Mountain	Mrs. A. W. Gibson, M.A	Academic	65 00	J. Pruden, Sec.
White Lake	Miss E. V. Brett	3rd Class	60 00	Chas. Kuoppala, Sec.; Matt W. Make.
Williams Lake	Miss H. F. Weetman	3rd "	95 00	E. E. Cunliffe, Sec. (3); L. J. Crossing (1); A. Sampson (2); L. F. Champion, Auditor.

TABLE C.—Public School Teachers and Trustees during 1916-1917—*Concluded.*

Rural and Assisted Schools.—Concluded.

SCHOOL.	TEACHER.	CERTIFICATE.	Monthly Salary.	TRUSTEES.
Williams Siding	Miss L. E. Oates	3rd Class	$75 00	F. Marsden, Sec. (2); Wm. Bowness (1); E. F. Phillips (3); Joshua Marsden, Auditor.
Willow River	W. W. C. O'Neill	3rd "	80 00	Jas. Neilans, Sec. (1); Wm. Gair (2); A. J. White (3); A. E. Brown, Auditor.
Wilmer	Hugh Paterson	1st "	85 00	E. E. Tuncliffe, Sec. (1); J. S. Barbour (2); A. Taylor (3); W. A. Lang, Auditor.
Windermere	Miss A. B. MacKenzie	1st "	85 00	J. C. Pitts, Sec. (1); J. A. Gibson (2); H. Richardson (3); C. M. Hawley, Auditor.
Winlaw	Miss F. G. McVicar	Temporary	75 00	H. C. Derrig, Sec. (2); C. Carter (1); E. Rolland (3); T. Edgar, Auditor.
Woden River	R. T. Pollock	"	80 00	
Wolfson Bay	J. S. Rowan	3rd Class	80 00	Mrs. F. J. Fletcher, Sec.
Woods Lake	Miss M. V. Hanna	2nd "	65 00	E. C. Shanks, Sec. (1); D. Edwards (2); J. Metcalf (3); D. M. Clarke, Auditor.
Woodville Road	Miss E. J. Miller, L.L.A.	Academic	65 00	
Wycliffe	H. L. Manzer	Temporary	75 00	D. G. Clark, Sec. (3); A. Staples (1); E. P. Davies (2); D. Foster, Auditor.
Wynndel	J. J. Ashton, B.A.	Academic	80 00	John Bathie, Sec. (2); O. J. Wegen (1); B. Dixon (3); N. Craigie, Auditor.
Yale	Miss Hazel McNeill	1st Class	70 00	F. H. Curghton, Sec.
Ymir	Mrs. A. R. Nicholls	1st "	90 00	G. S. Coleman, Sec. (3); A. Burgess (1); J. M. Gille (2); Geo. Luce, Auditor.

NOTE.—The figures (1), (2), (3) after a Trustee's name indicates the number of years a Trustee has still to serve.

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
City School Districts.			
Alberni	$ 1,130 00		$ 934 28
Armstrong	5,602 90		4,861 61
Chilliwack	6,326 65		13,160 00
Courtenay	1,695 00		1,974 91
Cranbrook	7,020 00		11,905 36
Cumberland	8,990 95		2,745 20
Duncan	4,463 75		5,180 06
Enderby	2,825 00		4,353 61
Fernie	11,873 35		19,531 19
Grand Forks	5,980 00		11,547 24
Greenwood	2,165 85		3,853 77
Kamloops	6,760 00		14,967 25
Kaslo	4,290 00		4,516 92
Kelowna	5,980 00		12,641 00
Ladysmith	6,760 00		6,222 90
Merritt	4,520 00		5,939 45
Nanaimo	16,800 00		18,660 04
Nelson	12,046 65		26,340 99
New Westminster	32,468 35		67,520 51
Phoenix	2,825 00		4,604 34
Port Alberni	2,257 50		2,801 07
Port Coquitlam	3,390 00		6,968 42
Port Moody	2,777 90		3,231 09
Prince George	2,260 00		4,740 00
Prince Rupert	9,273 35		17,201 77
Revelstoke	9,620 00		15,355 15
Rossland	9,793 30		16,910 07
Salmon Arm	2,260 00		5,085 06
Sandon	877 00		841 40
Slocan	1,130 00		1,355 39
Trail	6,685 80		21,980 25
Vancouver	176,191 00		498,055 04
Vancouver, North	13,650 00		24,694 21
Vernon	8,320 00		18,717 15
Victoria	72,680 00		158,276 24
Rural Municipality School Districts.			
Burnaby	24,456 70		37,588 95
Chilliwack	14,981 65		19,375 18
Coldstream	1,160 35		1,774 93
Coquitlam	4,011 85		2,544 59
Cowichan, North	5,220 00	$40 00	7,780 71

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural Municipality School Districts.—Concluded.			
Delta	$ 8,071 50		$ 9,775 94
Esquimalt	10,419 90		12,276 65
Kent	4,050 00		3,794 20
Langley	12,105 00		12,201 09
Maple Ridge	9,811 50		8,622 97
Matsqui	10,191 70		8,214 59
Mission	9,627 15		10,348 46
Oak Bay	8,612 45		23,524 38
Peachland	2,320 20		2,556 97
Penticton	8,264 90		11,761 33
Pitt Meadows	1,160 40		1,150 40
Point Grey	21,218 25		55,213 95
Richmond	10,440 00		11,800 00
Saanich	24,478 50		44,121 59
Salmon Arm	3,480 00		2,840 00
Spallumcheen	4,060 20		7,467 95
Sumas	3,480 00		2,195 04
Summerland	5,171 65		6,552 08
Surrey	14,616 10		12,378 14
Vancouver, North	6,911 65		16,194 20
Vancouver, South	76,658 90		125,666 34
Vancouver, West	2,851 50		4,864 47
Rural and Assisted School Districts.			
Abbotsford	2,274 40		1,548 34
Ainsworth	730 20		558 93
Albert Canyon	876 00		
Albert Head	720 00		141 30
Alert Bay	580 20		285 50
Alexandria	1,080 00		
Alice Arm	825 00		154 05
Alice Siding	960 00		200 10
Allen Grove	780 00		189 25
Anaconda	580 20		699 05
Anarchist Mountain	900 00		333 53
Annable	900 00		200 75
Appledale	900 00		225 42
Arrowhead	580 20		777 17
Arrow Park, East	580 20		780 72
Arrow Park, West	900 00		560 60
Asheroft	1,676 15		1,750 04

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Continued.			
Ashton Creek	$ 876 00		$ 40 00
Aspen Grove	885 50		165 05
Athalmer	1,080 00		368 20
Atlin	1,200 00	$57 35	
Balfour	960 00		269 99
Balmoral	840 00		9 85
Bamberton	60 00		
Bamfield	370 30		
Barkerville	1,140 00		154 05
Barnston Island	780 00		24 90
Barriere Power House	630 00		
Barriere River	900 00		132 91
Barriere Valley	900 00		12 00
Baynes Lake	580 20		575 19
Bear Creek	780 00		
Beaton	900 00		
Beaver Creek	840 00		41 75
Beaver Lake	1,020 00		
Beaver Point	570 00		107 75
Begbie	510 90		250 75
Belford	900 00		127 80
Bella Coola	960 00		125 05
Bella Coola, Lower	960 00		250 66
Bench	900 00		320 45
Beresford	558 35		347 70
Berrydale	765 00		13 00
Big Bar	540 00		
Big Bar Mountain	778 05		
Big Bar, Upper	1,080 00		
Big Eddy	936 00		94 15
Blaeberry	900 00		37 79
Blind Bay	780 00		112 55
Blueberry Creek	520 00		303 47
Bonaparte Valley	900 00		
Boston Bar	195 00		139 57
Boswell	900 00		58 00
Boundary Falls	900 00		
Bowen Island	816 00		
Bowie	763 20		
Bowser	720 00		26 77

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Continued.			
Box Lake	$ 900 00		$ 70 90
Brechin	3,000 00	$180 00	508 85
Bridesville	795 00		50 65
Brilliant	1,955 00		
Brisco	1,020 00		
Britannia Beach	1,680 00		
Britannia Mine	780 00		
Bull River Bridge	770 10		503 93
Burgoyne Bay	580 20		172 55
Burtondale	580 20		376 83
Cache Creek	580 20		
Campbell Creek	580 20		305 85
Campbell Range	840 00		20 00
Campbell River	580 20		375 40
Canford	720 00		
Canim Lake	450 00		256 56
Canyon City	580 20		684 92
Cape Scott	960 00		107 09
Cariboo	452 40		31 00
Carlin Siding	900 00		99 85
Carson	580 20		225 42
Cartier	1,080 00		108 20
Cascade	580 20		
Castledale	900 00		14 20
Castlegar	960 00		130 75
Cedar, East	840 00		84 65
Cedar, North	1,740 00		
Cedar, South	936 00		91 45
Chase	1,740 60		2,402 14
Chase Creek	780 00		15 75
Chase Creek, Lower	715 00		
Chase River	1,980 00		912 97
Chaumox	720 00		69 30
Cherry Creek Valley	780 00		144 40
Chief Lake	960 00		
Chilco	960 00		
Chimney Creek	1,020 00		
Christina Lake	840 00		91 10
Chu Chua	900 00		80 60
Clayoquot	580 20		276 11

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Continued.			
Clearwater	$ 900 00		$ 85 00
Clinton	580 20		585 74
Clo-oose	780 00		4 65
Coal Creek	1,740 60		2,746 27
Coalmont	450 00		
Cobble Hill	780 00		259 62
Cokato	812 50		7 70
Coltern	118 55		103 55
Columbia Gardens	723 35		271 07
Columbia Park	450 00		
Colwood	580 20		636 75
Comox	1,740 00		
Concord	756 95		
Copper City	1,140 00		
Copper Creek	792 85		
Copper Mountain	840 00		213 37
Corbin	580 20		932 48
Cortes Island	900 00		67 90
Cowichan	1,740 00		751 34
Cowichan Lake	780 00		171 30
Craigellachie	840 00		38 10
Cranberry Marsh	840 00		32 00
Crawford Bay	580 20		541 30
Crawford Creek	900 00		80 50
Crescent Valley	580 20		770 04
Creston	2,320 80		2,770 77
Criss Creek	740 15		33 15
Crowsnest	480 00		39 45
Cultus Lake	780 00		25 20
Curzon	900 00		202 58
Darcy Mountain	770 00		
Deadwood	840 00		
Deep Cove	580 20		484 49
Deep Creek	780 00		102 00
Deer Park	900 00		120 74
Demars, West	900 00		136 52
Denman Island	580 20		313 06
Departure Bay	900 00		
Dewdney	580 20		416 66
Diamond Crossing	1,740 00		358 28

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Continued.			
Discovery	$ 1,200 00	$ 93 15	
Dragon Lake	1,080 00		$ 50 05
Duck Range	560 10		153 85
Duhamel	900 00		152 42
Dunster	960 00		21 02
Edgewood	900 00		68 11
Edith Lake	385 25		308 10
Eholt	900 00		134 33
Elk Bridge	960 00		312 12
Elko	580 20		1,002 66
Elk Prairie	720 00		72 15
Ellison	580 20		527 25
Empire Valley	711 15		63 25
Endako	960 00		21 45
Enderby, North	580 20		325 30
Engen	75 00		
Erickson	580 20		524 85
Erie	900 00		261 36
Errington	720 00		21 44
Essington	531 85		646 00
Extension	2,817 55	80 00	290 65
Fairview	900 00		194 92
Falkland	900 00		131 15
Fanny Bay	840 00		148 10
Fauquier	900 00		94 07
Ferguson	936 00		
Field	580 20		
Fife	900 00		22 15
Fire Valley	900 00		131 15
Fish Lake	840 00		320 01
Flagstone	996 00		239 41
Fort Fraser	1,200 00		54 95
Fort George	2,700 00	803 80	
Fort George, South	1,500 00	328 75	
Fort Steele	1,160 40		901 03
Foster's Bar	644 20		
French Creek	876 00		182 26
Fruitlands	1,160 40		876 96
Fruitvale	580 20		582 75
Gabriola, North	521 25		169 40

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Continued.			
Gabriola, South	$ 580 20		$ 311 06
Galena	85 00		
Galena Bay	900 00		73 30
Galiano	780 00		
Galiano, North	720 00		
Galloway	900 00		
Gambier Island	390 00		
Ganges	716 10		
Gerrard	600 00		
Gill	936 00		138 35
Gillis Bay	854 80		100 00
Gilpin	876 00		37 00
Giscome	118 55		
Glade	935 00		
Glenbank	580 20		661 18
Glencoe	990 00		19 50
Glenemma	580 20		284 18
Glenora	840 00		146 05
Glenrosa	769 50		137 60
Golden	2,901 00		3,409 29
Goldstream	580 20		209 55
Granby Bay	1,817 20		3,782 47
Grande Prairie	575 10		172 77
Granite Bay	840 00		10 49
Grantham	840 00		153 40
Grindrod	580 20		364 17
Half Moon Bay	360 00		
Hall's Landing	900 00		87 13
Happy Valley	580 20		372 85
Hardy Island	720 00		267 37
Harewood	7,200 00		1,400 26
Harpers Camp	1,176 00		65 85
Harrogate	840 00		74 60
Harrop	900 00		145 27
Hat Creek	900 00		
Hatzic Prairie	570 00		183 15
Haysport	825 00		43 00
Hazelton	1,260 00		86 95
Hazelton, New	1,200 00		
Headquarters	780 00		264 34

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Continued.			
Hedley	$ 1,498 85		$ 1,931 66
Heffley Creek	900 00		
Heffley Lake	900 00		60 65
Heriot Bay	900 00		219 10
Heydon Bay	461 50		
Highland	780 00		235 45
Hilborn	935 00		669 40
Hillier	780 00		100 49
Hilltop	900 00		75 00
Hilton	816 00		
Hope	1,160 40		963 65
Hope Station	780 00		30 75
Hornby Island	780 00		45 37
Horse Creek	1,017 25		103 60
Hosmer	1,008 15		
Huston	825 00		135 00
Howe Sound	1,160 40		1,331 44
Hume	2,901 00		3,711 38
Hupel	679 35		8 10
Hurlingham	793 20		
Huscroft	960 00		400 38
Ingram Mountain	75 00		
Invermere	1,020 00		694 72
Inverness	1,020 00		
Ioco	720 00		270 58
Isabella Point	816 00		
Jaffray	580 20		801 02
James Island	720 00		
Jordan River	715 00		12 60
Kaleden	873 35		442 11
Kaleva	900 00		33 75
Kedleston	816 00		79 65
Keefers	780 00		62 45
Kelowna, East	837 75		227 54
Kelowna, North	580 20		508 15
Keremeos	1,160 40		1,269 30
Keremeos, South	840 00		768 51
Kettle River, North	900 00		50 70
Kettle Valley	900 00		
Kildonan	830 95		

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Continued.			
Killarney	$ 900 00		$ 97 05
Kimberley	936 00		
Kingcome Inlet	70 00		
Kingsgate	900 00		179 10
Kitimat	880 00		
Kitsumgallum	580 20		983 75
Knutsford	780 00		27 95
Koch Siding	816 00		161 37
Koksilah	840 00		114 42
Kundis	960 00		
Lac du Bois	770 00		21 50
Lac la Hache	960 00		
Lake Buntzen	780 00		
Langford	580 20		490 56
Lasqueti Island	840 00		6 40
Lazo	900 00		143 97
Lillooet	580 20		564 15
Little Fort	960 00		115 55
Loco	900 00		16 22
Long Lake	580 20		174 65
Louis Creek	580 20		468 90
Lucerne	900 00		
Lumby	1,155 30		902 61
Lund	580 20		338 10
Lytton	580 20		544 30
Mabel Lake	816 00		1 45
Malahat	900 00		176 24
Malakwa	580 20		198 05
Malcolm Island	2,100 00		200 55
Mapes	1,140 00		
Mara	1,112 05		673 99
Marshall	840 00		
Martin's Prairie	580 20		292 30
Marysville	580 20		
Masset	830 10		363 29
Mayne Island	580 20		323 20
Meadowbrook	781 65		
Meadow Spur	900 00		68 15
Meadow Valley	580 00		
Meldrum Creek	1,020 00		

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Continued.			
Metchosin	$ 580 20		$ 407 86
Metlakatla	1,080 00		26 15
Michel	4,003 45		4,453 00
Midway	515 75		779 65
Mill Brook Cove	641 35		
Mill Creek	720 00		76 25
Minto	1,860 00		310 27
Mirror Lake	350 00		
Mission Creek	523 80		449 25
Moberly	960 00		83 60
Model Farms	423 40		
Monte Creek	555 25		156 87
Montrose	816 00		92 98
Morrissey	340 70		
Morrissey Mines	840 00		10 60
Mountain	900 00		114 65
Mount Ingersoll	900 00		42 10
Moyase	780 00		170 75
Moyie	1,620 00		200 26
Myncaster	187 50		7 50
Macalister	1,020 00		31 00
McBride	1,200 00		
McGuire	900 00		78 00
MacKenzie	960 00		96 75
Nakusp	1,160 40		1,746 10
Nanaimo Bay	1,980 00		231 26
Nanoose Bay	816 00		143 45
Naramata	1,160 40		1,472 19
Nechako	667 75		142 00
Needles	900 00		108 70
New Denver	1,112 05		1,306 95
Newlands	75 00		
Nickel Plate Mine	840 00		
Nicola	580 20		446 75
Nicola, Lower	580 20		355 30
Nicomen	580 20		310 27
Nicomen, North	580 20		356 62
Nimpkish	840 00		
Nine-mile Creek	662 00		
Nob Hill	840 00		18 49

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government
Rural and Assisted School Districts.—Continued.			
North Bend	$ 1,160 40		$ 1,614 37
Northfield	1,860 00		262 30
North Thompson, West	241 75		
Notch Hill	1,160 40		799 52
No. 7 Mine	1,775 00		319 00
Ocean Falls	880 00		
Okanagan	578 60		283 97
Okanagan Centre	816 00		361 15
Okanagan Falls	530 10		482 40
Okanagan Landing	628 55		527 45
Okanagan, South	580 20		938 14
Okeover Arm	720 00		
Olalla	924 00		
Olsen Lake	777 90		50 10
Ootsa Lake	790 00		92 13
Osland	670 65		161 00
Otter Point	580 20		243 52
Oyama	789 85		877 21
Oyster	876 00		
Oyster, North	960 00		91 25
Pachelqua	787 50		31 25
Pacific	552 50		169 00
Parks Siding	777 90		
Parksville	840 00		505 12
Parson	770 00		70 87
Pavilion	900 00		
Pemberton Meadows	720 00		
Pemberton Range	769 50		10 60
Pender Harbour	720 00		
Pender Island	580 20		159 52
Perry Siding	900 00		75 37
Pinantan	676 65		225 62
Porcher Island	1,020 00		
Port Clements	1,020 00		43 00
Port Hardy	960 00		24 50
Port Renfrew	186 60		
Port Washington	720 00		
Pouce Coupe	1,200 00	$75 00	113 65
Pouce Coupe, North	987 10		
Powell River	2,127 40		3,580 97

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Continued.			
Princeton	$ 1,692 25	$187 50	$ 2,675 11
Princeton, East	750 00		
Procter	580 20		445 15
Qualicum Beach	1,680 00		154 90
Qualicum, Little	840 00		24 85
Quatsino	960 00		
Queen Charlotte	990 00		217 72
Quesnel	1,160 40		1,337 94
Ray Lake	679 35		
Refuge Cove	390 00		
Reiswig	780 00		57 35
Renata	900 00		
Retreat Cove	636 40		68 25
Richland	780 00		
Riondel	840 00		
Roberts Creek	900 00		319 28
Robin's Range	660 00		138 91
Robson	580 20		449 88
Rock Bay	814 35		28 70
Rock Creek	900 00		132 25
Rocky Point	580 20		192 65
Roe Lake	900 00		
Rogers Pass	75 00		
Roosville	960 00		8 65
Rosebery	822 50		
Rose Hill	580 20		248 95
Round Top	825 00		265 50
Royston	780 00		183 35
Rutland	1,740 60		1,389 62
Saanich, North	580 20		766 60
Sahtlam	780 00		26 50
St. Elmo	780 00		29 12
Salmo	1,160 40	180 00	960 01
Salmon River	840 00		14 30
Salmon Valley	815 00		
Sandspit	1,080 00		120 85
Sandwick	960 00		97 20
Saskatoon Creek	1,200 00		42 50
Savary Island	720 00		69 90
Savona	580 20		219 96

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Continued.			
Sayward	$ 960 00		$ 27 35
Sea Otter Cove	75 00		
Sechelt	780 00		20 40
Seton Lake Creek	876 00		40 43
Seymour Arm	900 00		43 00
Shaw Cove	673 20		
Shawnigan	900 00		133 71
Shirley	195 00		20
Shoreacres	900 00		122 87
Shuswap	580 20		247 50
Shuswap Falls	780 00		30 00
Shuswap, North	816 00		127 87
Shutty Bench	840 00		80 18
Sicamous	840 00		121 11
Sidney	1,740 60	$100 00	1,373 00
Silver Creek	731 75		178 90
Silverton	1,160 40	132 00	2,681 45
Similkameen	960 00		
Simpson	580 20		631 36
Sinclair	900 00		13 72
Sirdar	960 00		
Sister's Creek	793 35		263 90
Skidegate	354 15		2 50
Skookumchuck	520 00		2 55
Slocan Junction	580 20		513 95
Smithers	1,200 00		549 21
Soda Creek	1,140 00		17 85
Solsqua	840 00		74 01
Sooke	580 20		518 00
Sooke Harbour	518 85		
Sorrento	876 00		139 27
Spences Bridge	549 60		104 19
Squam Bay	770 00		120 00
Squamish	580 20		557 00
Squamish, Lower	1,203 70		
Squirrel Cove	387 95		268 50
Standard Mine	840 00		365 25
Stellaco	960 00		14 10
Stewart	1,320 00		375 85
Strandby	85 00		

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Continued.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Continued.			
Sullivan Valley	$ 876 00		
Sunnybrae	759 05		$ 29 45
Sunnyside	390 00		
Sunnyside, No. 2	120 00		31 43
Swift Creek	585 00		33 20
Syringa Creek	900 00		18 54
Taft	840 00		
Tappen Siding	580 20		325 99
Tappen Valley	750 65		77 50
Telegraph Creek	1,260 00		
Telkwa	895 00		213 90
Three Forks	900 00		59 05
Three Valley	900 00		
Thrums	1,020 00		110 68
Thurlow	900 00		
Tranquille	806 15		
Trapp Lake	780 00		220 00
Trout Creek, Upper	780 00		277 90
Trout Lake	960 00		89 40
Tulameen	780 00		25 95
Turtle Valley	840 00		10 75
Ucluelet	936 00		85 70
Ucluelet Arm	825 00		110 15
Ucluelet, East	900 00		104 20
Union Bay	1,863 50		620 46
Valdes Island	900 00		
Vananda	1,160 40		745 19
Vanderhoof	960 00		88 25
Vargas Island	350 00		
Vesuvius	580 20		323 05
Vesuvius, North	580 20		158 90
Waldo	1,160 40		1,311 81
Walhachin	780 00		112 79
Wanklyn	347 45		641 66
Wapta	1,020 00		102 82
Wardner	580 20		733 62
Wasa	1,020 00		27 00
Waterloo	720 00		10 10
Watmore	748 00		140 05
Wellington	1,836 00		207 10

TABLE D.—Exhibit of Expenditure for Education Proper during the year 1916-1917.—*Concluded.*

School District.	Amount paid by Government on account of Teachers' Salaries.	Amount paid by Government for Incidental Expenses, including Rent, &c.	Amount paid by District in addition to Expenditure by Government.
Rural and Assisted School Districts.—Concluded.			
Wellington, South	$ 4,080 00		$ 484 66
Westbank Townsite	580 20		447 35
Westview	600 00		160 33
Whaletown	900 00		61 85
Whatshan	1,200 00		
Wheeler Mountain	375 30		
White Lake	317 40		41 93
Williams Lake	1,140 00		117 90
Williams Siding	900 00		118 47
Willow River	960 00		136 27
Wilmer	1,020 00		323 50
Windermere	1,020 00		
Winlaw	900 00		84 62
Woden River	933 60		461 75
Wolfson Bay	960 00		12 60
Woods Lake	580 20		460 51
Woodville Road	390 00		60 80
Wycliffe	580 20		442 14
Wynndel	960 00		236 28
Yale	840 00		89 30
Ymir	580 20		791 93
	$1,234,567 90	$2,257 55	$1,637,539 08
	2,257 55		
	$1,236,825 45		
Less fees for Teachers' Certificates	2,440 00		
Cost to Government for Teachers' Salaries and Incidentals			1,234,385 45
			$2,871,924 53
Department of Works			136,719 11
Total cost			$3,008,643 64

EDUCATION OFFICE:			
Salaries		$10,199 00	
Expenses of Office:			
Books, maps, etc.	$ 61 94		
Expressage, freight, etc.	41 24		
Telegrams	235 48		
		338 66	
Expenses of Teachers' Examination:			
Examiners and expenses and stationery		7,545 63	
Expenses of High School Entrance Examination:			
Examiners and expenses and stationery		6,301 87	
			$ 24,385 16
FREE TEXT-BOOK BRANCH:			
Salaries		$ 5,040 00	
Books, maps, globes, etc.		59,927 48	
			64,967 48
INSPECTION OF SCHOOLS:			
Salaries		$28,255 00	
Travelling and office expenses		13,435 57	
			41,690 57
PROVINCIAL NORMAL SCHOOLS:			
Salaries		$35,830 05	
Books, apparatus, and incidental expenses		2,831 46	
Mileage for travelling expenses of students		4,285 05	
			42,946 56
EDUCATION OF DEAF, DUMB, AND BLIND:			
Tuition, maintenance, and fares of pupils at Winnipeg, Belleville, Brantford, Montreal, Halifax, and Berkeley, Cal.			13,715 65
AGRICULTURAL AND INDUSTRIAL EDUCATION:			
Salaries		$12,150 00	
Expenditure		22,967 18	
			35,117 18
Per capita grant to City School Districts			471,689 30
" Municipality School Districts			307,872 00
" Rural School Districts			106,778 50
Salaries of Teachers in Assisted Schools			283,517 60
" " Esquimalt and Nanaimo Railway Belt			66,968 05
Grants to School Libraries			300 78
Conveying children to Central School			568 68
Manual Training Equipment			5,028 27
Grant to Reading Camp Association			300 00
			$1,465,845 78
Amount expended by Cities, Municipalities, Rural and Assisted School Districts			1,637,539 08
" " Department of Works			136,719 11
			$3,240,103 97
Less fees for Teachers' Certificates			2,440 00
Grand total cost of Education			$3,237,663 97

TABLE E.—Schools in Electoral Districts, 1916-1917.

Electoral Districts.	Names of Schools.	Number of Schools open during 1916-1917.	No. of Teachers employed in 1916-1917.	Number of Pupils enrolled.	Total expenditure for Education Proper.
Alberni	Alberni City Municipality School District; Bamfield; Beaver Creek; Cape Scott; Cherry Creek; Clayoquot; Departure Bay; Errington; French Creek; Gill; Hillier; Kildonan; Montrose; Nanoose Bay; Parksville; Port Alberni City Municipality School District; Qualicum Beach; Qualicum, Little; Quatsino; Sea Otter Cove; Strandby; Ucluelet; Ucluelet Arm; Ucluelet, East; Vargas; Wellington	25	30	630	$ 22,919 95
Atlin	Alice Arm; Atlin; Discovery; Granby Bay; Granby Bay Mine; Stewart; Telegraph Creek	7	8	194	7,772 70
Cariboo	Alexandria; Barkerville; Beaver Lake; Cariboo; Chimney Creek; Dragon Lake; Glencoe; Harpers Camp; Hilborn; Meldrum Creek; Macalister; Quesnel; Sister's Creek; Soda Creek; Williams Lake	15	16	216	15,167 15
Chilliwack	Abbotsford; Chilliwack City Municipality School District; Chilliwack Rural Municipality School District; Cultus Lake; Matsqui Rural Municipality School District; Sumas Rural Municipality School District	35	66	1813	38,034 40
Columbia	Athalmer; Blaeberry; Brisco; Castledale; Field; Galena; Golden; Harrogate; Horse Creek; Invermere; Moberly; Parson; Rogers Pass; Sinclair; Wapta; Wilmer; Windermere	16	19	390	16,108 45
Comox	Alert Bay; Bowser; Campbell River; Comox; Cortes Island; Courtenay City Municipality School District; Cumberland City Municipality School District; Denman Island; Fanny Bay; Gillis Bay; Granite Bay; Grantham; Headquarters; Heriot Bay; Heydon Bay; Hornby Island; Kaleva; Kingcome Inlet; Lasqueti Island; Lazo; Lund; Malcolm Island; Marshall; Minto; Nimpkish; Nob Hill; No. 7 Mine; Okeover Arm; Olsen Lake; Port Hardy; Powell River; Refuge Cove; Rock Bay; Royston; Sandwick; Savary Island; Sayward; Squirrel Cove; Thurlow Island; Union Bay; Valdes Island; Vananda; Westview; Whaletown; Wolfson Bay	45	66	1555	50,509 55
Cowichan	Bench; Clo-oose; Cobble Hill; Cowichan; Cowichan Lake; Cowichan, North, Rural Municipality School District; Duncan City Municipality School District; Glenora; Koksilah; Malahat; Sahtlam; Shawnigan	19	28	688	18,963 75
Cranbrook	Bull River Bridge; Cranbrook City Municipality School District; Curzon; Fort Steele; Kimberley; Kingsgate; Loco; Marysville; Meadowbrook; Moyase; Moyie; Wanklyn; Wardner; Wasa; Wycliffe	18	29	864	18,876 20
Delta	Barnston Island; Delta Rural Municipality School District; Langley Rural Municipality School District; Surrey Rural Municipality School District	44	62	1594	35,572 60
Dewdney	Coquitlam Rural Municipality School District; Dewdney; Harrison River (in Kent Rural Municipality School District); Hatzic Prairie; Ioco; Lake Buntzen; Maple Ridge Rural Municipality School District; Mission Rural Municipality School District; Nicomen; Nicomen, North; Pitt Meadows Rural Municipality School District; Port Coquitlam City Municipality School District; Port Moody City Municipality School District; Sunnyside, No. 2	36	60	1518	35,289 40
Esquimalt	Albert Head; Bamberton; Colwood; Esquimalt Rural Municipality School District; Goldstream; Happy Valley; Highland; Jordan River; Langford; Metchosin; Otter Point; Port Renfrew; Rocky Point; Shirley; Sooke; Sooke Harbour	16	30	845	18,236 95
Fernie	Baynes Lake; Coal Creek; Cokato; Corbin; Crowsnest; Elk Bridge; Elko; Elk Prairie; Fernie City Municipality School District; Flagstone; Galloway; Hosmer; Hurlingham; Jaffray; Michel; Michel, New; Morrissey; Morrissey Mines; McGuire; Roosville; Waldo	22	51	1721	30,809 15
Fort George	Chief Lake; Chilco; Dunster; Engen; Fort Fraser; Fort George; Fort George, South; Giscome; Lucerne; Mapes; McBride; Nechako; Newlands; Pouce Coupe; Pouce Coupe, North; Prince George City Municipality School District; Saskatoon Creek; Stellaco; Swift Creek; Vanderhoof; Willow River	19	23	558	22,775 95
Grand Forks	Berrydale; Carson; Cascade; Christina Lake; Fife; Gilpin; Grand Forks City Municipality School District; Hilltop; Kettle River, North; Phoenix City Municipality School District	11	25	764	15,146 40
Greenwood	Anaconda; Anarchist Mountain; Boundary Falls; Bridesville; Coltern; Deadwood; Eholt; Greenwood City Municipality School District; Ingram Mountain; Kettle Valley; Midway; Myncaster; Rock Creek	13	15	347	9,777 85

(The) Islands	Beaver Point; Burgoyne Bay; Cranberry Marsh; Deep Cove; Gabriola, North; Gabriola, South; Galiano; Galiano, North; Ganges; Isabella Point; James Island; Mayne Island; Pender Island; Port Washington; Retreat Cove; Saanich, North; Sidney; Vesuvius; Vesuvius, North	19	21	499	13,521 95
Kamloops	Balmoral; Barriere Power House; Barriere River; Barriere Valley; Beresford; Blind Bay; Campbell Creek; Campbell Range; Carlin Siding; Chase; Chase Creek; Chase Creek Lower; Chu Chua; Clearwater; Copper Creek; Duck Range; Edith Lake; Fish Lake; Fruitlands; Grande Prairie; Heffley Creek; Heffley Lake; Kamloops City Municipality School District; Knutsford; Lac du Bois; Little Fort; Long Lake; Louis Creek; Martin's Prairie; Model Farms; Monte Creek; North Thompson, West; Notch Hill; Pemberton Range; Pinantan; Robin's Range; Rose Hill; Round Top; Salmon Arm City Municipality School District; Salmon Arm Rural Municipality School District; Savona; Shuswap; Shuswap, North; Sorrento; Squam Bay; Sullivan Valley; Sunnybrae; Tappen Siding; Tappen Valley; Tranquille; Trapp Lake; Turtle Valley; Watmore; Wheeler Mountain; White Lake	61	79	1894	51,175 75
Kaslo	Ainsworth; Alice Siding; Boswell; Canyon City; Crawford Bay; Creston; Erickson; Ferguson; Gerrard; Huscroft; Kaslo City Municipality School District; Mirror Lake; Riondel; Shutty Bench; Sirdar; Trout Lake; Wynndel	18	25	663	18,347 60
Lillooet	Big Bar; Big Bar Mountain; Big Bar, Upper; Bonaparte Valley; Canim Lake; Clinton; Criss Creek; Empire Valley; Hat Creek; Lac la Hache; Lillooet; Pachelqua; Pavilion; Pemberton Meadows; Roe Lake; Seton Lake Creek	16	16	258	12,403 25
Nanaimo	Brechin; Cedar, North; Chase River; Harewood; Nanaimo City Municipality School District; Nanaimo Bay	9	46	1815	32,880 00
Nelson	Nelson City Municipality School District	2	22	837	12,046 65
Newcastle	Cedar, East; Cedar, South; Diamond Crossing; Extension; Ladysmith City Municipality School District; Mountain; Northfield; Oyster; Oyster, North; Waterloo; Wellington, South	12	30	1023	22,569 55
New Westminster	New Westminster City Municipality School District	8	67	2448	32,468 35
North Okanagan	Armstrong City Municipality School District; Ashton Creek; Coldstream Rural Municipality School District; Deep Creek; Enderby City Municipality School District; Enderby, North; Falkland; Glenemma; Grindrod; Hilton; Hupel; Kedleston; Lumby; Mabel Lake; Mara; Okanagan Landing; Oyama; Reiswig; Richland; Salmon River; Salmon Valley; Seymour Arm; Shuswap Falls; Sicamous; Silver Creek; Spallumcheen Rural Municipality School District; Sunnyside; Vernon City Municipality School District; Woodville Road	40	65	1731	40,324 90
North Vancouver	Bowen Island; Britannia Beach; Britannia Mine; Gambier Island; Half Moon Bay; Hardy Island; Howe Sound; Mill Creek; North Vancouver City Municipality School District; North Vancouver Rural Municipality School District; Pender Harbour; Roberts Creek; Sechelt; Shaw Cove; Skookum chuck; Squamish; Squamish, Lower; West Vancouver Rural Municipality School District	26	61	1825	35,416 65
Omineca	Endako; Hazelton; Hazelton, New; Houston; Ootsa Lake; Smithers; Telkwa	7	7	114	7,130 00
Prince Rupert	Bella Coola; Bella Coola, Lower; Copper City; Essington; Haysport; Inverness; Kitimat; Kitsumgallum; Kundis; Masset; Metlakatla; Mill Brook Cove; MacKenzie; Ocean Falls; Osland; Pacific; Porcher Island; Port Clements; Prince Rupert City Municipality School District; Queen Charlotte; Sandspit; Simpson; Skidegate; Woden River	25	40	880	28,722 95
Revelstoke	Albert Canyon; Arrowhead; Beaton; Begbie; Big Eddy; Bowie; Cartier; Craigellachie; Crawford Creek; Galena Bay; Hall's Landing; Malakwa; Revelstoke City Municipality School District; Solsqua; Tait; Three Valley	18	34	962	21,966 50
Richmond	General Brock and General Wolfe (in South Vancouver Rural Municipality School District); Point Grey Rural Municipality School District; Richmond Rural Municipality School District; Sexsmith and Sir Wm. Van Horne (in South Vancouver Rural Municipality School District)	18	80	2835	48,478 25
Rossland	Annable; Rossland City Municipality School District	4	20	755	10,693 30
Saanich	Oak Bay Rural Municipality School District; Saanich Rural Municipality School District	18	57	1847	33,090 95
Similkameen	Allen Grove; Coalmont; Copper Mountain; Darcy Mountain; Fairview; Hedley; Kaleden; Keremeos; Keremeos, South; Killarney; Nickel Plate; Okanagan Falls; Olalla; Penticton Rural Municipality School District; Princeton; Princeton, East; Similkameen; Tulameen	20	35	862	23,941 35
Slocan	Appledale; Arrow Park, East; Arrow Park, West; Box Lake; Burtondale; Deer Park; Demars, West; Edgewood; Fauquier; Fire Valley; Glenbank; Koch Siding; Mount Ingersoll; Nakusp; Needles; New Denver; Perry Siding; Renata; Rosebery; Sandon City Municipality School District; Silverton; Slocan City Municipality School District; Standard Mine; Three Forks; Whatshan; Winlaw	26	30	763	23,590 95
South Okanagan	Bear Creek; Ellison; Glenrosa; Kelowna City Municipality School District; Kelowna, East; Kelowna, North; Meadow Valley; Misson Creek; Naramata; Okanagan; Okanagan, Centre; Okanagan, South; Peachland Rural Municipality School District; Rutland; Summerland Rural Municipality School District; Trout Creek, Upper; Westbank Townsite; Woods Lake	24	43	1163	24,939 50
South Vancouver	Burnaby Rural Municipality School District; Carleton; Champlain; Connaught High; Moberly; McBride; Mackenzie; Norquay; Secord; Selkirk; Tecumseh	26	132	4939	84,295 60

TABLE E.—Schools in Electoral Districts.—*Concluded.*

Electoral District.	Names of Schools.	Number of Schools open during 1916-1917.	No. of Teachers employed in 1916-1917.	Number of Pupils enrolled.	Total expenditure for Education Proper.
Trail	Balfour; Belford; Blueberry Creek; Brilliant; Castlegar; Columbia Gardens; Columbia Park; Crescent Valley; Duhamel; Erie; Fruitvale; Glade; Harrop; Hume; Meadow Spur; Nine-mile Creek; Parks Siding; Procter; Robson; Salmo; Shoreacres; Slocan Junction; Syringa Creek; Thrums; Trail City Municipality School District; Williams Siding; Ymir	29	46	1401	$30,571 65
Vancouver City	Vancouver City Municipality School District	33	364	15440	176,191 00
Victoria City	Victoria City Municipality School District	22	146	5573	72,680 00
Yale	Agassiz (in Kent Rural Municipality School District); Ashcroft; Aspen Grove; Boston Bar; Cache Creek; Canford; Chaumox; Concord; Foster's Bar; Harrison Hot Springs (in Kent Rural Municipality School District); Hope; Hope Station; Keefers; Lytton; Merritt City Municipality School District; McBride (in Kent Rural Municipality School District); Nicola; Nicola, Lower; North Bend; Ray Lake; St. Elmo; Spences Bridge; Walhachin; Yale	25	38	894	23,418 35
	Total, 1916-1917	847	2032	65118	1,236,825 45
	" 1915-1916	808	1984	64570	1,198,031 28

PART III.

APPENDICES.

APPENDIX A.

HIGH SCHOOL EXAMINATION, JUNE, 1917.

Medallists.

The following are the names of the winners of His Excellency the Governor-General's Silver Medals:—

William A. Neen, Nanaimo High School.
Eileen S. MacKenzie, Nelson High School.
Annie Taylor, New Westminster High School.
Dorothy Blakey, King Edward High School, Vancouver.
Victor E. Hall, Victoria High School.

Number of Successful Candidates at each Centre.

Examination Centre.	Advanced Course, Junior Grade.	Full Course, Junior Grade.	Third Class, Non-professional Teachers' Certificates.	Second Year Commercial.	Third Year Commercial.	Intermediate Grade.	Senior Grade.	Senior Academic Grade.	Total.
Abbotsford:									
Abbotsford Superior	6	1	.....	.....	.....	.....	.....	.....	7
Mount Lehman Superior	2	.....	.....	.....	.....	.....	.....	.....	2
Agassiz	5	.....	.....	.....	.....	.....	.....	.....	5
Armstrong	10	3	.....	.....	.....	.....	.....	.....	13
Belmont Superior	4	.....	.....	.....	.....	.....	.....	.....	4
Bridgeport	8	.....	.....	.....	.....	.....	.....	.....	8
Chilliwack	23	.....	.....	.....	.....	.....	.....	.....	23
Cloverdale Superior	2	1	.....	.....	.....	.....	.....	.....	3
Courtenay:									
Courtenay Superior	1	.....	.....	.....	.....	.....	.....	.....	1
Private Study	.....	.....	1	.....	.....	.....	.....	.....	1
Cranbrook	2	.....	.....	.....	.....	.....	.....	.....	2
Creston	3	.....	.....	.....	.....	.....	.....	.....	3
Cumberland	7	.....	.....	.....	.....	.....	.....	.....	7
Duncan	5	.....	.....	.....	.....	.....	.....	.....	5
Enderby	2	.....	.....	.....	.....	.....	.....	.....	2
Esquimalt	14	.....	.....	.....	.....	.....	.....	.....	14
Fernie	5	.....	.....	.....	.....	4	2	.....	11
Golden	6	.....	.....	.....	.....	.....	.....	.....	6
Grand Forks	11	3	.....	.....	.....	5	.....	.....	19
Greenwood	2	.....	.....	.....	.....	.....	.....	.....	2
Hedley Superior	1	.....	.....	.....	.....	.....	.....	.....	1
Kamloops:									
Kamloops High	18	1	.....	.....	.....	.....	.....	.....	19
Private Study	.....	.....	1	.....	.....	.....	.....	.....	1
Kaslo	15	.....	.....	.....	.....	.....	.....	.....	15
Kelowna	6	.....	2	.....	.....	.....	.....	.....	8
Ladner	7	.....	.....	.....	.....	.....	.....	.....	7
Ladysmith	4	.....	.....	.....	.....	8	.....	.....	12
Maple Ridge:									
Haney Superior	2	.....	.....	.....	.....	.....	.....	.....	2
Maple Ridge Superior	9	.....	.....	.....	.....	4	.....	.....	13
Matsqui	4	.....	.....	.....	.....	3	.....	.....	7
Merritt Superior	.....	3	.....	.....	.....	.....	.....	.....	3
Mission	7	.....	.....	.....	.....	6	.....	.....	13
Nanaimo	24	.....	1	.....	.....	7	4	.....	36
Naramata	1	.....	.....	.....	.....	.....	.....	.....	1
Nelson:									
Nelson High	28	3	.....	.....	.....	15	2	.....	48
Fruitvale Public	.....	.....	1	.....	.....	.....	.....	.....	1
New Denver Public	2	.....	.....	.....	.....	.....	.....	.....	2
St. Joseph's Private	3	.....	.....	.....	.....	.....	.....	.....	3
Private Study	.....	2	.....	.....	.....	.....	.....	.....	2
New Westminster:									
New Westminster High	71	1	2	9	.....	.....	10	.....	93
St. Ann's Academy	2	.....	.....	.....	.....	.....	.....	.....	2
St. Louis College	3	.....	.....	.....	.....	.....	.....	.....	3

NUMBER OF SUCCESSFUL CANDIDATES AT EACH CENTRE—*Concluded.*

EXAMINATION CENTRE.	Advanced Course, Junior Grade.	Full Course, Junior Grade.	Third Class, Non-professional Teachers' Certificates.	Second Year Commercial.	Third Year Commercial.	Intermediate Grade.	Senior Grade.	Senior Academic Grade.	TOTAL.
Oak Bay:									
Oak Bay High	11								11
Private Study			1						1
Penticton:									
Penticton High	6					3			9
Private Study			2						2
Point Grey	20	1							21
Port Alberni	5								5
Prince George:									
Prince George Public	1								1
Cariboo Public		1							1
Prince Rupert:									
Prince Rupert High	10	1				2	1		14
Private Study						1			1
Quesnel:									
Private Study	1								1
Revelstoke	11					7			18
Rossland	16	1							17
Salmon Arm	2								2
Summerland	4								4
Trail	3					3			6
Vancouver:									
Britannia High	54	7		18	1				80
King Edward High	102	6		29	3				140
King George High	66	2							68
Private Study			9					1	10
Vancouver, North	21								21
Vancouver, South:									
South Vancouver High	52	1		4		20	8		85
Private Study			1						1
Vernon	3		1						4
Victoria:									
Victoria High	106	1		18		1			126
St. Ann's Academy	2								2
Private Study		1	2			2			5
	821	40	24	78	4	91	27	1	1,086

Number of candidates examined 1,476
Number of successful candidates 1,086

HIGH SCHOOL ENTRANCE EXAMINATION, JUNE, 1917.

Medallists.

In addition to the ten bronze medals which were donated by His Excellency the Governor-General, there were also available this year twenty extra medals kindly donated by His Royal Highness the late Governor-General. Ten of these were awarded to the leading pupils in the ten cities having the greatest number of passes, ten to the leading pupils in the various rural municipalities, five to the leading pupils of the rural and assisted schools, and five to the leading pupils from the Province at large.

The following are the names of the medal-winners:—

Cities—

Helen M. Douglas, Howay School, New Westminster.
Ida Cunliffe, Ridgeway School, North Vancouver.
A. Aileen Aylard, South Park School, Victoria.
Mary A. MacKay, Cecil Rhodes School, Vancouver.
George D. Quail, Fernie.
T. Wilfrid Brown, Grand Forks.
Marjorie Hall, Nelson.
J. Cyril Wallis, Rossland.
I. Doreen Freeman, Selkirk School, Revelstoke.
Allan Little, Nanaimo.

Rural Municipalities—

Mildred L. Gordon, Selkirk School, South Vancouver.
Reta E. Ormiston, Monterey School, Oak Bay.
Fern D. G. James, Model School, Saanich.
V. Marion Telford, Shaughnessy School, Point Grey.
William H. Robertson, Ellis School, Penticton.
Hugh MacIntyre, Summerland.
Bertha W. Dowding, Ladner School, Delta.
Stephen T. Moodie, Edmonds School, Burnaby.
John S. Burton, Glenwood School, Langley.
Leslie W. McKay, Agassiz School, Kent.

Rural and Assisted Districts—

Muriel Battershall, Trout Lake.
Jessie M. Ferguson, Christina Lake.
Enid Garrard, Clayoquot.
G. William Owens, Cowichan.
Edith McL. Grobe, Ymir.

Province at large—

Grace A. Austin, Kamloops.
Margery J. Lee, General Gordon School, Vancouver.
Magdalene F. Aske, Fairview School, Vancouver.
Helen R. Hood, Vernon.
Flora M. Ball, Kelowna.

Number of Successful Candidates at each Centre.

Abbotsford Centre.

Matsqui Municipality:
- Aberdeen 1
- Bradner 3
- Clayburn 5
- Mount Lehman 1

Non-municipal School:
- Abbotsford 6

Agassiz Centre.

- Agassiz 8
- Harrison Hot Springs 1

Armstrong Centre.

- Armstrong 5

Spallumcheen Municipality:
- Bennett 3
- Hullcar 1
- Lansdowne 2
- Pleasant Valley 1

Arrowhead Centre.

- Arrowhead 2
- Trout Lake 4

HIGH SCHOOL ENTRANCE EXAMINATION, JUNE, 1917—*Continued.*

NUMBER OF SUCCESSFUL CANDIDATES AT EACH CENTRE—*Continued.*

Ashcroft Centre.

Ashcroft	2

Athalmer Centre.

Athalmer	2

Belmont Centre.

Beaver	1
Belmont	6
Glenwood	1
Langley	1
Langley Prairie	3
Milner	5

Bridgeport Centre.

Bridgeport	16

Burnaby Centre.

Barnet	1
Douglas Road	1
Edmonds Street	7
Gilmore Avenue	11
Hamilton Road	2
Kingsway, East	5
Kingsway, West	17
Schou Street	1
Sperling Avenue	1

Chase Centre.

Chase	5

Chilliwack Centre.

Chilliwack	19
Chilliwack Municipality:	
Atchelitz	8
Camp Slough	1
Chilliwack, East	3
Lotbiniere	1
Rosedale	2
Sardis	1
Strathcona	4

Clinton Centre.

Clinton	1

Cloverdale Centre.

Cloverdale	4
Crescent Beach	1
Hall's Prairie	3
Newton	2
Springdale	1
Tynehead	3
White Rock	3

Courtenay Centre.

Courtenay	1
Non-municipal Schools:	
Comox	1
Denman Island	1
Grantham	1
Lazo	1
Sandwick	1

Cranbrook Centre.

Cranbrook	21
Non-municipal Schools:	
Fort Steele	3
Marysville	1
Moyie	1
Private School:	
King Edward's	3

Creston Centre.

Alice Siding	1
Canyon City	1
Creston	5
Huscroft	1

Cumberland Centre.

Cumberland	19
Non-municipal School:	
Union Bay	1

Duncan Centre.

Duncan	14
North Cowichan Municipality:	
Chemainus	1
Maple Bay	1
Quamichan	1
Somenos Station	1
Westholme	1
Non-municipal Schools:	
Cobble Hill	2
Cowichan	5
Cowichan Lake	1
Koksilah	3
Malahat	1
Sahtlam	1
Private Study	1

Endako Centre.

Endako	1

Enderby Centre.

Enderby	14

Esquimalt Centre.

Esquimalt, Div. 1	13
Esquimalt, Div. 2	11

HIGH SCHOOL ENTRANCE EXAMINATION, JUNE, 1917—*Continued.*

NUMBER OF SUCCESSFUL CANDIDATES AT EACH CENTRE—*Continued.*

Esquimalt Centre—Concluded.

Non-municipal School:
Mayne Island 1

Fernie Centre.

Fernie 28

Golden Centre.

Golden 5
Harrogate 1

Granby Bay Centre.

Granby Bay 4

Grand Forks Centre.

Grand Forks 24
Non-municipal Schools:
Carson 1
Cascade 1
Christina Lake 1

Greenwood Centre.

Greenwood 8
Non-municipal Schools:
Deadwood 1
Midway 2

Hanceville Centre.

Private School:
St. John the Divine 1

Hedley Centre.

Hedley 2

Hope Centre.

Hope 1

Howe Sound Centre.

Howe Sound 5

Kamloops Centre.

Kamloops 22
Non-municipal Schools:
Heffley Creek 1
Pinantan 1
Rose Hill 1
Private Schools:
St. Ann's Academy 5
Zetland 4

Kaslo Centre.

Kaslo 13
Sandon 1

Kelowna Centre.

Kelowna 19

Kelowna Centre—Concluded.

Non-municipal Schools:
Bear Creek 1
Kelowna, East 1
Okanagan 1

Keremeos Centre

Keremeos 3
Keremeos, South 4
Similkameen 2

Kitsumgallum Centre.

Copper City 1
Kitsumgallum 1

Ladner Centre.

Annieville 1
Inverholme 1
Ladner 13

Ladysmith Centre.

Ladysmith 22
Non-municipal Schools:
Extension 3
Oyster 1
Oyster, North 2

Lillooet Centre.

Lillooet 1
Pavilion 1

Malcolm Island Centre.

Malcolm Island 4

Maple Ridge Centre.

Maple Ridge Municipality:
Haney 2
Lillooet, South 1
Maple Ridge 5
Alexander Robinson 3
Ruskin 1
Whonnock 1
Pitt Meadows Municipality:
Pitt Meadows 2

Masset Centre.

Masset 1

Matsqui Centre.

Glenmore 2
Matsqui 4
Ridgedale 1

Merritt Centre.

Merritt 7

Mission Centre.

Ferndale 1

HIGH SCHOOL ENTRANCE EXAMINATION, JUNE, 1917—*Continued.*

NUMBER OF SUCCESSFUL CANDIDATES AT EACH CENTRE—*Continued.*

Mission Centre—Concluded.

Hatzic	4
Mission	3
Silverdale	1

McBride Centre.

Cariboo	1
McBride	3

Nakusp Centre.

Demars, West	1
Glenbank	3
Mount Ingersoll	1

Nanaimo Centre.

Nanaimo, Div. 1	20
Nanaimo, Div. 2	19
Non-municipal Schools:	
Cedar, East	2
Cedar, South	4
Gabriola, South	1
Harewood	4
Mountain	1
Northfield	1
Wellington, South	1
Private School:	
St. Ann's Convent	3

Naramata Centre.

Naramata	3

Nelson Centre.

Nelson, Div. 1	32
Nelson, Div. 2	20
Nelson, Div. 3	9
Slocan	1
Non-municipal Schools:	
Appledale	1
Balfour	3
Belford	1
Duhamel	2
Fruitvale	1
Harrop	2
Hume	9
Park Siding	1
Salmo	3
Ymir	1
Private School:	
St. Joseph's Convent	1

New Denver Centre.

New Denver	5
Silverton	5

New Hazelton Centre.

New Hazelton	3

New Westminster Centre.

F. W. Howay, Div. 1	33
F. W. Howay, Div. 2	3
Lord Lister, Div. 1	29
Lord Lister, Div. 2	2
Richard McBride	14
John Robson	23
Herbert Spencer	21
Coquitlam Municipality:	
Blue Mountain	3
Surrey Municipality:	
South Westminster	1
Non-municipal School:	
Barnston Island	1
Private Schools:	
St. Ann's Academy	2
St. Louis College	3

North Bend Centre.

Keefers	1
North Bend	1

Notch Hill Centre.

Notch Hill	1
Shuswap, North	2

Oak Bay Centre.

Oak Bay	21

Parksville Centre.

Errington	1
French Creek	2
Montrose	4
Parksville	1
Qualicum Beach	3
Qualicum Little	2

Peachland Centre.

Peachland Municipality:	
Peachland	4
Trepanier	2
Non-municipal School:	
Westbank	2

Penticton Centre.

Penticton Municipality:	
Penticton	18
Poplar Grove	2
Non-municipal School:	
Fairview	1

Phoenix Centre.

Phoenix	7

HIGH SCHOOL ENTRANCE EXAMINATION, JUNE, 1917—*Continued.*

NUMBER OF SUCCESSFUL CANDIDATES AT EACH CENTRE—*Continued.*

Point Grey Centre.

Eburne	17
Kerrisdale	19
Lord Kitchener	9
Queen Mary	10
Shaughnessy	14

Port Alberni Centre.

Alberni	5
Port Alberni	2
Non-municipal School:	
Ucluelet, East	1

Port Coquitlam Centre.

Port Coquitlam	6
Coquitlam Municipality:	
Coquitlam, East	1

Port Moody Centre.

Port Moody	5

Powell River Centre.

Gillis Bay	1
Lund	1
Powell River	1
Savary Island	1

Prince George Centre.

Prince George	2
Non-municipal School:	
Fort George	6

Prince Rupert Centre.

Prince Rupert	19
Private School:	
School of the Annunciation	2
Private Study	1

Princeton Centre.

Killarney	2
Princeton	2

Quesnel Centre.

Quesnel	1

Revelstoke Centre.

Central	9
Selkirk	22
Non-municipal Schools:	
Albert Canyon	1
Three Valley	1

Rossland Centre.

Rossland	33

Rutland Centre.

Ellison	1
Rutland	8

Saanichton Centre.

Keatings	5
Saanichton	4
Saanich, West	7

Salmon Arm Centre.

Salmon Arm	7
Salmon Arm Municipality:	
Salmon Arm, West	4
Silver Creek	2
Non-municipal School:	
Tappen	1

Sidney Centre.

Burgoyne Bay	1
Deep Cove	2
Sidney	2

Simpson Centre.

Simpson	3

Smithers Centre.

Smithers	1

Soda Creek Centre.

Soda Creek	1

Stewart Centre.

Stewart	1

Summerland Centre.

Summerland	13

Tofino Centre.

Clayoquot	2

Tolmie Centre.

Craigflower	5
MacKenzie Avenue	2
North Dairy	1
Strawberry Vale	1
Tolmie	10

Trail Centre.

Trail	19
Non-municipal School:	
Robson	3

Vancouver Centre.

Alexandra	23
Beaconsfield	7
Central	18

HIGH SCHOOL ENTRANCE EXAMINATION, JUNE, 1917—*Continued.*

NUMBER OF SUCCESSFUL CANDIDATES AT EACH CENTRE—*Continued.*

Vancouver Centre—Concluded.

Children's Home 3
Dawson, Div. 1 27
Dawson, Div. 2 15
Dawson, Div. 3 14
Charles Dickens 15
Fairview 37
Franklin 9
Simon Fraser, Div. 1 18
Simon Fraser, Div. 2 7
General Gordon, Div. 1 37
General Gordon, Div. 2 8
Grandview 24
Hastings 19
Henry Hudson 18
Kitsilano 24
Livingstone 10
Model, Div. 1 32
Model, Div. 2 7
Mount Pleasant 21
Macdonald 17
Lord Nelson, Div. 1 25
Lord Nelson, Div. 2 11
Florence Nightingale 37
Cecil Rhodes, Div. 1 30
Cecil Rhodes, Div. 2 12
Lord Roberts, Div. 1 39
Lord Roberts, Div. 2 19
Laura Secord 15
Seymour 20
Strathcona 22
Lord Tennyson, Div. 1 28
Lord Tennyson, Div. 2 4
Non-municipal School:
Refuge Cove 1
Private Schools:
St. Ann's Academy 5
St. Augustine 4

North Vancouver Centre.

Lonsdale 9
Queen Mary 13
Ridgeway 26
North Vancouver Municipality:
Capilano 1
Lynn Valley 2
North Star 4
West Vancouver Municipality:
Hollyburn 2
Private School:
St. Edmund's 1

South Vancouver Centre.

Brock 16
Carleton 30

South Vancouver Centre—Concluded.

Walter Moberly 14
Richard McBride 9
Mackenzie 33
Norquay 5
Secord 5
Selkirk, Div. 1 32
Selkirk, Div. 2 9
Sexsmith 11
Tecumseh 13
Van Horne 11
General Wolfe 30

Vanderhoof Centre.

Mapes 2
Vanderhoof 5

Vernon Centre.

Vernon 22
Coldstream Municipality:
Coldstream 2
Non-municipal Schools:
Falkland 1
Lumby 1
Okanagan Landing 1
Oyama 4
Woods Lake 1

Victoria Centre.

Boys' Central, Div. 1 23
Boys' Central, Div. 2 20
Sir James Douglas, Div. 1 32
Sir James Douglas, Div. 2 13
Girls' Central, Div. 1 27
Girls' Central, Div. 2 11
George Jay 29
North Ward, Div. 1 30
North Ward, Div. 2 8
Oaklands 18
Quadra 14
South Park, Div. 1 31
South Park, Div. 2 27
Victoria West, Div. 1 24
Victoria West, Div. 2 18
Non-municipal Schools:
Albert Head 1
Clo-oose 1
Colwood 2
Galiano 1
Highland 1
Metchosin 1
Private Schools:
Collegiate School 1
St. Ann's Academy 10
St. George's 1

HIGH SCHOOL ENTRANCE EXAMINATION, JUNE, 1917—*Concluded.*

NUMBER OF SUCCESSFUL CANDIDATES AT EACH CENTRE—*Concluded.*

Victoria Centre—Concluded.

Private Schools—*Concluded.*

St. Louis College	6
St. Margaret's	5
Private Study	1

Victoria Model School Centre.

Cedar Hill	3
Gordon Head	3
Model	10

Victoria Model School Centre—Concluded.

Whaletown Centre.

Whaletown	1

Williams Lake Centre.

Williams Lake	1

Number of candidates examined	3,698.
Number of successful candidates	2,627.

APPENDIX B.

HIGH SCHOOL ENTRANCE EXAMINATION, 1917.

BRITISH HISTORY. (Time, 1½ hours.)

Value.

20 1. The Coming of the English.

(*a.*) Explain briefly what led up to the coming of the English to Britain.

(*b.*) Describe these English in appearance and character.

(*c.*) Show by sketch-map the original home of the English; also the seven kingdoms which the English formed in Britain.

15 2. Give a brief account of each of the following:—

(*a.*) Henry II.'s reforms.

(*b.*) England's first Parliament.

(*c.*) Results of the War of the Roses.

12 3. What belief did the Stuart sovereigns hold in regard to their right to rule?
What opposition did this cause?
What was the outcome?

13 4. When were the crowns of England and Scotland united? Who was the first king after this union?
When were the parliaments united? Give the most important terms of the union.
When did Ireland come into the union?
Write a note on "Home Rule."

20 5. The Growth of the British Empire.
Explain in a general way how India, Australia, and South Africa came under British Rule.
(In answering this question mention should be made of exploration, colonization, and extension by conquest or otherwise.)

20 6. The Great War.

(*a.*) Write a note about the "Scrap of Paper."

(*b.*) What is meant by unrestricted submarine warfare?

(*c.*) What is the object of the British blockade of German ports?

(*d.*) Locate and write briefly about each of the following: *Jutland, Monastir, Fort Douamont, Somme, Gorizia.*

100

NATURE LESSONS. (Time, 1¼ hours.)

[NOTE.—*Answer the first* three *questions and any* three *of the remaining six questions. Candidates must not attempt more than* six *questions.*]

Value.

16 1. (*a.*) How could you prove that carbon-dioxide is given out in the breath?

(*b.*) What is the effect of breathing dry air continuously? What provision would you suggest for keeping a supply of moisture in the air of a school-room?

17 2. (*a.*) Mention two articles of food that might be substituted for meat. Give reasons.

(*b.*) State briefly the chief precautions to be observed by dairymen in the production of clean milk.

Value.

16 3. (*a.*) Why does blood need to circulate in the body?
(*b.*) Why does running increase heart-beat and also respiration?

17 4. (*a.*) Name in order of development the stages in the life-history of a moth.
(*b.*) In which of these stages is it likely to do most harm to vegetation? Why?
(*c.*) In what stages do insects usually pass the winter?

17 5. (*a.*) How would you prove that soil contains air?
(*b.*) How would you show that this soil-air is necessary for plant-growth?
(*c.*) Some plants live entirely submerged in water. How do they get the necessary oxygen?

17 6. (*a.*) In keeping a weather record, what facts would you record from day to day?
(*b.*) Make drawings of the instruments you would use and describe briefly the working of each.

17 7. (*a.*) In the plant kingdom what are (1) annuals, (2) herbaceous perennials, (3) woody perennials? Give two examples of each.
(*b.*) Describe briefly how each of the above kinds of plant prepares for winter.

17 8. (*a.*) Mention some of the different ways by which birds may be identified.
(*b.*) In what way do birds render valuable service to the country?
(*c.*) What means would you recommend for attracting birds around your home or school?

17 9. (*a.*) Give brief instructions on the following:—
(1.) The covering of garden seeds in planting.
(2.) The thinning-out of young plants.
(3.) The watering of the garden.

100 (*b.*) What does "watering the garden with the garden hoe or rake" mean?

English Literature. (Time, 2 hours.)

Fourth Reader.

Value.

12 1. Quote any *one* of the following:—
(*a.*) The first stanza from Lord Tennyson's "St. Agnes' Eve."
(*b.*) The first three stanzas from Charles Wolfe's "The Burial of Sir John Moore."
(*c.*) The first three stanzas from Whittier's "The Red River Voyageur."
(*d.*) Robert Herrick's "To Daffodils."
(*e.*) Three stanzas of Lord Tennyson's "In Memoriam," beginning, "Now dance the lights on lawn and lea."
(*f.*) William Collins' "The Patriotic Dead."

10 2. (*a.*) What historical event inspired Rudyard Kipling to write the poem "Recessional"?
(*b.*) Give in a few words the main thought of the poem.
(*c.*) Explain the following passages taken from this poem:—
(1.) " . . . . . we hold
Dominion over palm and pine:"

Value.

(2.) "Lo, all our pomp of yesterday
Is one with Nineveh and Tyre!"

(3.) "For heathen heart that puts her trust
In reeking tube and iron shard,
. . . . . .
Thy mercy on Thy people, Lord!"

8 3. "He was inspired, and from the instant when his fingers began to wander along the keys the very tone of the instrument began to grow sweeter and more equal."

(*a.*) Of whom was this said?

(*b.*) What inspired him?

(*c.*) What was the result of the inspiration?

5 4. Select *one* word from each of the following passages that you consider to be most descriptive and most aptly used:—

(*a.*) "On entering here the magnitude of the building breaks fully upon the mind."

(*b.*) ". . . . . unhail'd
The shallop flitteth silken-sail'd
Skimming down to Camelot;"

(*c.*) "Out of the sluggish dark that lay along the ravine as in a trough rose the brawl of a swollen obstructed stream."

(*d.*) "Soon shalt thou find a summer home, and rest,
And scream among thy fellows;"

(*e.*) ". . . the race whom he hated with such burning rancor trample with unceasing footsteps over his forgotten grave."

15 5. Assign to author and selection each of the following quotations and tell to whom the italicized words refer:—

(*a.*) "And now *he* wards a Roundhead's pike, and now he hums a stave,
And now he quotes a stage play, and now he fells a knave."

(*b.*) "It's dull in our town since my playmates left;
I can't forget that I'm bereft
Of all the pleasant sights they see."

(*c.*) "Mark but my fall and that that ruin'd *me*."

(*d.*) "So they proceeded with *him* to his quarters at Corunna, weeping as they went."

(*e.*) "And never earth's philosopher
Traced with his golden pen
On the deathless page truths half so sage
As *he* wrote down for men."

The Lady of the Lake.

7 1. (*a.*) How many days are occupied by the story contained in the "Lady of the Lake"?

(*b.*) Describe the events that happened on the evening of the second day.

15 2. (*a.*) Name in order of importance, placing the most important first, the six leading characters of the story.

(*b.*) State briefly the reason for each of these being present at Stirling Castle on the morning of the last day.

9 3. What purposes are served by introducing Blanche of Devan into the story?

Value.

9 4. Name the speaker in each of the following passages, and state the occasion on which each was spoken:—

(*a.*) "Woe to the clansman who shall view
This symbol of sepulchral yew,
Forgetful that its branches grew
Where weep the heavens their holiest dew
On Alpine's dwelling low!"

(*b.*) "Break off the sports!" he said and frowned,
"And bid our horsemen clear the ground."

(*c.*) "Who fought?——who fled?——Old man, be brief;
Some might,——for they had lost their Chief."

10 5. Quote any *one* of the following:—

(*a.*) Ten lines beginning, "The stag at eve had drunk his fill,"

(*b.*) Ten lines beginning, "Hail to the Chief . . . "

(*c.*) The stanza beginning, "Time rolls his ceaseless course."

(*d.*) Eight lines beginning, "Who o'er the herd would wish to reign,"

100 (*e.*) The stanza beginning, "Harp of the North, farewell!"

ARITHMETIC. (Time, 2 hours.)

Value.

15 1. (*a.*) Find the prime factors of 9702.

(*b.*) 56 is 7/8 per cent. of what number?

(*c.*) What decimal part of a week is 8⅔ hours?

14 2. (*a.*) Find the value of: $\frac{(5.0075 - .0025) \times 500}{.0625 - .062}$

(*b.*) Divide twenty million seventy thousand and five by 769.

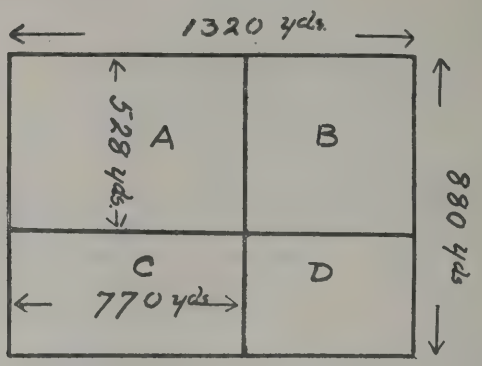
14 3. November 16th, 1916, I borrowed $785, paying interest at the rate of 8 per cent. per annum, and with the money immediately purchased a lot. I sold the lot for $1,000 cash, April 11th, 1917, and repaid the loan. What was my net gain?

14 4. A farmer purchased 275 boards, each 12 feet x 8 inches x 1½ inches, at $25 per M. He gave in payment $35 cash and the balance in oats worth 62½ cents a bushel. How many bushels of oats did he give?

14 5. In twenty-four hours rain fell to a depth of 0.75 inch. How many gallons fell on a rectangular garden plot 70 feet long and 50 feet wide. (1 cubic foot=25 quarts.)

15 6. A commission merchant had shipped to him 500 boxes of apples and 4,000 bushels of wheat. He paid $47.85 freight charges, and for storage 6¼ cents a box for the apples and 3 cents a bushel for the wheat. He sold the apples at $1.62 a box on a commission of 1½ per cent., and the wheat at $2 a bushel on a commission of 4 cents a bushel. What amount should he remit to his employer?

Value.
14 7.



The above plan represents a piece of land divided into four rectangular fields: A, B, C. and D.

(*a.*) What is the perimeter of the field D?

(*b.*) How many bushels of wheat did field A yield if it averaged 30 bushels to the acre?

100

DICTATION AND SPELLING. (Time, 1 hour.)

[NOTE.—*The Presiding Examiner will please notify candidates before he begins to dictate this paper that the quality of writing in the Dictation and Spelling paper decides 50 per cent. of the marks awarded in the subject of Writing.*

The passages (questions 1 and 2) are to be read slowly and distinctly to candidates three times—the first time to enable them to gather the meaning; the second time to enable them to write the words; the third time for review. Candidates are not permitted to rewrite the passages.]

Value.
35 1. (*a.*) On the bank of the St. Lawrence near Quebec stands a monument which was erected to commemorate the death of the British General Wolfe and the French General Montcalm. The former was killed on the field of battle when the city was taken by the British in 1759; the latter died of his wounds a few hours after the battle, but before the capitulation of the fortress. They were both young and heroic men, skilful generals, and true patriots. It is fitting that such chivalrous antagonists should be associated together in the inscription on their common monument, as they always will be on the pages of history.

(*b.*) This would be an easy matter and interfere very little with their civil avocations after the thorough training they had undergone in boyhood; and the discipline and self-control that would thus be inculcated would be of inestimable value, whatever the individual's career might be.

25 2.

Wrathful at such arraignment foul,
Dark lowered the clansman's sable scowl.
A space he paused, then sternly said,
"And heardst thou why he drew his blade?
Heardst thou that shameful word and blow
Brought Roderick's vengeance on his foe?
What recked the Chieftain if he stood
On Highland heath or Holy-Rood?
He rights such wrong where it is given,
If it were in the court of heaven."

Value.

40 3. [NOTE.—*The Presiding Examiner will pronounce each word distinctly, where necessary illustrating its use in a sentence. He will also allow a reasonable time for writing each word before the following one is pronounced.*]

Diameter,	conscientious,	studious,
celery,	sincerely,	physician,
vicious,	deceive,	religious,
battalion,	economy,	politician,
business,	accuracy,	perseverance,
mortgage,	raisins,	journey,
privilege,	accommodate,	handkerchief,
foreign,	Wednesday,	freight,
nuisance,	cemetery,	adieu,
luncheon,	wretched,	bicycle,
guarantee,	suspicion,	Antarctic,
covetous,	poultry,	Mediterranean.
separate,	pursuit,	
100 provincial,	juicy,	

GRAMMAR AND COMPOSITION. (Time, 2 hours.)

Value.

15 1. (*a.*) Classify the following sentence:—

Out and in the river is winding
The links of its long red chain,
Through belts of dusky pine-land
And gusty leagues of plain.

(*b.*) Select the subordinate clauses from the following sentence, and state the kind and relation of each:—

They discovered that the water had risen so rapidly that they could not reach the house where they had stored their provisions.

10 2. State whether each of the verbs, or verb phrases, in the following sentences is transitive or intransitive, and give reasons for your classification:—

(*a.*) Shut the door.

(*b.*) He walked around.

(*c.*) It was given to me by my father.

(*d.*) Now fades the last long streak of snow.

(*e.*) Their furrow oft the stubborn glebe has broke.

16 3. State the grammatical value (i.e., classify) and give the relation of each of the italicized words in the following sentences:—

(*a.*) The bird escaped *through* the opening.

(*b.*) A *twilight* gloom fell over all the land.

(*c.*) You know his *worth*.

(*d.*) He found the book *that* was lost.

(*e.*) I know *that* he did this.

(*f.*) I shall give *whichever* book he chooses.

(*g.*) *Learning* a foreign language requires patience.

(*h.*) *Leaving* the open road we entered the woods.

9 4. Name and illustrate the nine Primary Tenses in the active voice, indicative mood, by using the verb *to teach* with a subject in the first person, plural number.

Value.

15 5. (*a.*) As we rounded a bend in the road there lay before us the overturned and badly smashed wagon, with parts of the harness still attached to the shafts.
Using this as either the opening or closing sentence, write a *one-paragraph* story suggested to you by the sentence.

(*b.*) Write a letter to The Davis Smith Co., Limited, 1200 Government Street, Victoria, B.C., ordering one copy of Sykes' "Elementary English Composition," for which you enclose a postal note for forty cents. Rule a space of the proper size on your paper and in it write the envelope address.

35 6. Write a composition of at least three paragraphs on any *one* of the topics given below. Before writing the composition draw up an outline, or plan, which will show the main heading and contents for each paragraph. Hand this in with your composition.

(*a.*) How to Make Bread.

(*b.*) How to Recognize Common Woods.

(*c.*) A Fishing Trip.

(*d.*) Gathering Wild Flowers.

(*e.*) David and Goliath.

(*f.*) The Passing of Arthur.

(*g.*) The Pied Piper of Hamelin.

(*h.*) The Second Visit of Fitz-James to the Highlands.

100 (*i.*) The Journey of the Fiery Cross.

GEOGRAPHY. (Time, 1½ hours.)

Value.

12 1. Give exact location of each of the following and account for the growth and importance of each: *Winnipeg, Chicago, New Orleans, Buenos Ayres, Marseilles, Vienna.*

10 2. Give the two leading countries producing each of the following: *Coffee, tea, silk, wool, cotton, wheat, rice, sugar, wine, bananas.*

24 3. Describe the general appearance of any *three* of the following: *Alberta, Argentine, Holland, Transvaal, Ganges Valley, New Zealand.* In your description tell what the climate is like; picture the people at work; give their chief sources of wealth.

12 4. Account for differences in climate of the following places:—

(*a.*) *Vancouver Island* and *Newfoundland.*

(*b.*) *Norway* and *Sweden.*

(*c.*) *Madrid* and *Rome.*

12 5. Write a note on each of the following:—

(*a.*) The Cape to Cairo Railway.

(*b.*) The Assuan Dam.

(*c.*) Diamond-mining in South Africa.

30 6. Draw a map of Western Canada—from Hudson Bay and Lake Superior to the Pacific.
Mark the boundaries of the four western provinces and Yukon Territory.
Show the *Mackenzie, Saskatchewan, Nelson, Fraser,* and *Columbia* river systems.
Show the three transcontinental railways (main lines).
Mark exact location of *Victoria, Vancouver, Prince Rupert, Dawson, Port Nelson, Calgary, Edmonton, Saskatoon, Winnipeg, Brandon.*

100

CANADIAN HISTORY. (Time, 1½ hours.)

Value.

19 1. (*a.*) At the commencement of the Seven Years' War, what were the rival claims of the French and the British to the territory between the Mississippi River and the Appalachian Mountains?

(*b.*) What do you consider the most important British victory of that war? Give a reason for your answer.

(*c.*) In what year and by what treaty was the war formally closed? What territory was added to Britain by the treaty?

8 2. (*a.*) Give two terms of the Quebec Act that removed grievances of the French population.

(*b.*) State two important changes that were brought about by the Union Act, 1841.

12 3. Tell briefly how the movement for Confederation was affected by: (*a*) The Fenian Raids, 1866; (*b*) the termination of the Reciprocity Treaty with the United States; (*c*) equal representation for Upper and Lower Canada in the Canadian parliament.

17 4. (*a.*) Define or explain the following: Federal Union, Fathers of Confederation, Dominion Day.

(*b.*) What provinces first formed the Dominion of Canada? Name a statesman in each who took an active part in carrying Confederation.

(*c.*) Give the name of the Act under which the Dominion is governed. When and by what parliament was it passed?

10 5. (*a.*) When and on what conditions did the Dominion Government acquire the North-West from the Hudson's Bay Company?

(*b.*) What provinces have been formed in this territory?

9 6. When did British Columbia enter Confederation? What was the chief condition of its joining the Union? How many members has it in the House of Commons? How is its representation in that body determined?

14 7. What has the Federal Government done in the last fifty years to strengthen the ties that bind the Dominion to the Mother-land?

11 8. (*a.*) State three matters on which the Dominion Government alone can legislate, and three that come under the control of the provincial governments.

(*b.*) What political party is in power in Canada; in British Columbia?

(*c.*) Who is the Governor-General of Canada, the Premier of Canada, the Premier of British Columbia?

100

DRAWING. (Time, 2 hours.)

Value.

10 *(a.) Selection from Drawings.*

Select four examples of work from your drawings, as follows:—

1. Example 9 or 17 from Book IV.
2. The best freehand design—if possible, one based on the flower drawn on page 9 or 17.
3. The best drawing of an object—if possible, not from a plain type model.
4. The best example of a scale-drawing showing the rough sketch which carries the measurements.

Write your name, age, and school neatly on each sheet, fasten them carefully together, and hand them, with other papers, to the Presiding Examiner.

[NOTE.—*The Presiding Examiner will collect books and drawings and return them after the examination is over.*]

Value.
35

(b.) Freehand Drawing.

Make a drawing from this copy, the breadth to be 8 inches. (This distance should be measured with the ruler.)

[NOTE.—*This drawing must not be reproduced, but is given merely to show the application of above design to a piece of wood-carving.*]

Value.

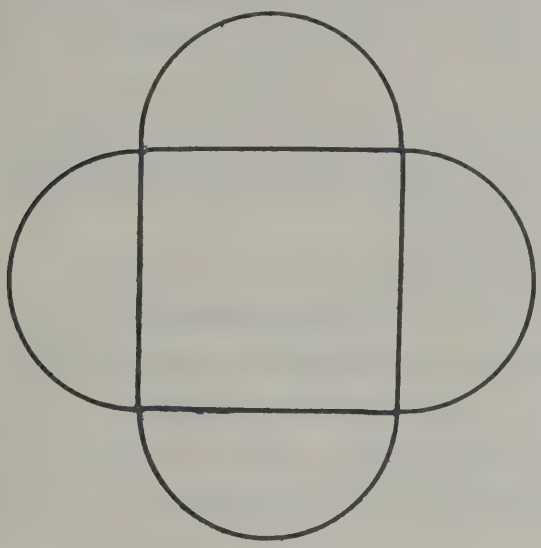
30 *(c.) Freehand Object Drawing from Memory.*

Sketch lightly a pyramid having a total width of not less than 6 inches. Convert this type model into an object and leave the drawing in its sketch state.

25 *(d.) Geometrical Drawing.*

1. Construct a scale to measure feet and inches when 1½ inches represents 1 foot.
2. Draw a line 2 feet long from above scale, and let that line be one side of a square. Construct the square and complete a geometrical figure similar to the one seen in the diagram below. Do not use set-squares, and show all construction lines.

100



APPENDIX C.

HIGH SCHOOL EXAMINATION, 1917.

Full Course, Junior Grade.

DRAWING. (Time, 2 hours.)

[NOTE.—*Students who wish to complete the Junior Course at one examination must take this paper.*]

(a.) Colour.

Select the following from your drawing-books, and write your distinguishing number at the top right-hand corner of each. Before beginning this paper give these to the Examiner.

1. An example of design-work.
2. An example of model drawing.
3. An example of colour-work from nature (not copied work).

(b.) Freehand—Design.

Draw a design suitable for a book-cover, and introduce as printing, "Sketch Book."

(c.) Model and Object.

Draw from memory a supporting surface, a cylinder, and a square prism tilted against the cylinder.

Sketch in with very light lines, and in dark lines suggest objects that the group of models might be changed into.

(d.) Geometrical.

1. (*a.*) Construct a rhombus having a diagonal 3⅜" long and a side 2⅝" long.
   (*b.*) Construct a rhomboid having a side 4⅛" long and a side 2⅜" long, with an included angle of 30 degrees.

2. Construct a hexagon having a side 3" long, and make a simple geometrical design within the hexagon.

3. Give definitions of the following: Diagonal, perimeter, perpendicular, prism, polygon (give five examples).

ARITHMETIC. (Time, 2 hours.)

[NOTE.—*Students who wish to complete the Junior Course at one examination must take this paper.*]

1. The columns of granite in a building weigh 100 tons each, including the shafts and the capitals resting on them. Each shaft weighs 76 tons more than its capital. Find the weight of a shaft; of a capital.

2. Find the specific gravity of mercury if ½ l. weighs 6.799 kg.

3. A floor 16′ x 12′ is to be covered with Axminster carpet 27 inches wide, costing $1.75 per yard. Allowing in all 1¼ yards for matching the pattern, how much carpet will be required if the strips run the long way? Find the cost of the carpet.

4. Find, by aliquot parts, the interest and amount of $2,500 for 1 yr. 7 mo. at 7%. Prove the accuracy of your work by using another method to secure the answers.

5. (*a.*) J. S. Burton sold to Sanford and Williams merchandise for $1,000, terms half cash and half payable in sixty days. Draw the note, making it negotiable.
   (*b.*) The note was sold to J. K. Avery and endorsed in full. Write the endorsement.
   (*c.*) Suppose that Mr. Avery sells the note to Henry Baldwin and endorses it in such a way as to avoid responsibility for its payment. Write the endorsement.
   (*d.*) Explain in what other ways the note might be endorsed.

6. My money in the savings bank was bearing interest at 3½% per annum computed semi-annually. I drew out $2,002 and invested it in railway stock at 125, paying the usual brokerage. The stock yielded a semi-annual dividend of 2½%. Was my semi-annual income increased or diminished? If so, how much?

7. Find the cost of 3% stock when the money invested in it yields 8%.

8. A plank 28 feet long is 1 foot wide at one end and 1½ feet wide at the other end. How many square feet are there in one side of it? If it is 2 inches thick, how many board feet does it contain?

Advanced Course, Junior Grade; and Full Course, Junior Grade.

Latin. (Time, 2 hours.)

1. Write a short description of *one* of the following: *Oppugnatio, Triplex Acies, Navis Longa.*

2. Compare: *superus, magnus, acriter, humilis.*
   Distinguish (by meaning) between: *copia* and *copiae; reddo* and *redeo; vinctus* and *victus.*

3. Conjugate in full:—
   (*a.*) Present indicative of *malo.*
   (*b.*) Present subjunctive of *possum.*
   (*c.*) Imperfect subjunctive of *volo.*
   (*d.*) Future indicative of *eo.*
   (*e.*) Give all tenses of the infinitive mood, active and passive, of *fero.*

4. Give the classification of pronouns. Assign to the correct class and give the meaning of: *hic, meus, tu, qui, quis, is, aliquis, sui.* Decline in full any *two* of these pronouns.

5. Exemplify by giving short and easy sentences in Latin and English:—
   (*a.*) Any *six* uses of the ablative case.
   (*b.*) *Five* methods of expressing purpose.
   (*c.*) *Four* methods of expressing an adverbial clause of time.

6. Express in Latin: I shall inform the boys of the danger. Weeping, he asked me for help. On the top of the mountain. On guard. According to custom. They cannot be conquered. Do not set out at daybreak. He promised to follow me. The unprotected flank. I shall never forget you.

7. Translate into Latin:—
   (1.) He attacked so suddenly that the enemy turned and fled.
   (2.) If they were to send hostages we should make peace immediately.
   (3.) I think that the camp ought to be fortified as soon as possible.
   (4.) Do you not know with what legion I am?
   (5.) He sent the cavalry officers in advance to choose a suitable place for a camp.

8. Translate into English:—

(*a.*) Ubi dē ējus adventū Helvētiī certiōrēs factī sunt, lēgātōs ad eum mittunt; sed Caesar negat sē posse iter ūllī per prōvinciam dare. Relinquēbātur ūna per Sēquanōs via. Mox Caesarī renūntiātur Helvētiōs per agrum Sēquanōrum iter in Santonum fīnēs facere, quī nōn longē ā prōvinciā nostrā absunt. Intellegēbat perīculōsum prōvinciae *fore*, sī hominēs bellicōsī, populī Rōmānī inimīcī, prōvinciae fīnitimī essent.

Parse *fore*.

(*b.*) Hōc proeliō trāns Rhēnum nūntiātō, Suēbī quī ad rīpās Rhēnī vēnerant, *domum* revertī coepērunt. Caesar ūnā aestāte duōbus māximīs bellīs cōnfectīs, mātūrius paulō quam tempus annī postulābat, in hīberna in Sēquanōs exercitum dēdūxit. Hībernīs Labiēnum lēgātum praefēcit; ipse in citeriōrem Galliam profectus est.

Explain the case of *domum*.

(*c.*) Quae cum ita *essent*, nūntiī rē īnfectā ad Ulixem rediērunt. Hīs rēbus cōgnitīs. Ulixēs ipse cum omnibus quī in nāvī relictī sunt ad locum vēnit; et sociōs frūstrā hortātus ut sponte suā redīrent, manibus eōrum post terga vinctīs, invītōs ad nāvem reportāvit. Tum, ancorīs sublātīs, quam celerrimē ē portū nāvem solvit.

Account for the mood of *essent*.

(*d.*) Illī intereā aliquantum prōgressī ad vīllam quandam pervēnērunt, summā māgnificentiā aedificātam; cūjus ad jānuam cum adiissent, ipsa Circē exiit et summā cum benīgnitāte omnēs invitāvit ut introīrent. Eurylochus autem, īnsidiās suspicātus, forīs exspectāre cōnstituit; reliquī reī novitāte adductī intrāvērunt, atque convīvium māgnificum invēnērunt omnibus rēbus īnstrūctum.

Give an account in English of the conclusion of this story.

COMPOSITION. (Time, 2 hours.)

[NOTE.—*Seventy-five per cent. of the value attached to this paper will be apportioned to the essay.*]

1. (*a.*) Having in mind Washington Irving's description of the Bobolink, give an outline for a short composition.

(*b.*) This description possesses artistic qualities of style. Point out what characteristics make it artistic.

2. Explain the difference between *simile* and *metaphor*, giving an example of each.

3. In a concise letter to the Premier of British Columbia give your views on Prohibition. [N.B.—Special attention will be paid to the form of your letter.]

4. Write an essay on *one* of the following subjects:—

(*a.*) Venice. (Byron's Childe Harold.)

(*b.*) She Was a Phantom of Delight. (Wordsworth.)

(*c.*) The Entrance of the United States into the War.

Physiology. (Time, 1½ hours.)

1. Discuss foods under the following headings:—
   (*a.*) Waste and repair.
   (*b.*) Oxidation and energy.
   (*c.*) Classification of foods.

2. State clearly and fully what you have learned of:—
   (*a.*) The composition of the blood.
   (*b.*) The purpose it serves in the body.

3. (*a.*) Why is good ventilation important?
   (*b.*) Write as fully as possible on bathing.

4. Give a short account of the two great divisions of the nervous system.

5. Show the importance of suitable muscular exercise for the maintenance of bodily health.

6. Name and describe our main defences against contagious disease.

Geometry. (Time, 2 hours.)

[Note.—*Draw neat figures, use printed capitals, and give authorities.*]

1. Any two sides of a triangle are together greater than the third side.

2. ABC is a triangle in which the side AB is greater than AC. Prove that the angle ACB is greater than ABC by means of the following construction: From AB cut off AD=AC, bisect the angle BAC by AE meeting the base in E, join DE.

3. The opposite sides and angles of a parallelogram are equal to one another and each diagonal bisects the parallelogram.

4. The medians BE and CF of a triangle ABC intersect at G; GB and GC are bisected at H and K respectively. Prove HKEF is a parallelogram. Hence prove that G is a point of trisection of BE and CF.

5. Construct a triangle, having given the perimeter and the angles at the base.

6. If the square described on one side of a triangle be equal to the sum of the squares described on the other two sides, then the angle contained by these two sides shall be a right angle.

7. DEF is an isosceles triangle; it is required to draw a straight line AB parallel to the base EF, and meeting the equal sides in A and B, so that EA, AB, and BF may be all equal.

Physics and Chemistry. (Time, 1½ hours.)

1. (*a.*) How is a simple mercury thermometer constructed?
   (*b.*) Why is mercury a good liquid to use in a thermometer?

2. (*a.*) How many units of heat are taken in by 100 grams of water in being heated through 18° Fahrenheit?
   (*b.*) State as clearly as possible the distinction between heat and temperature.

3. Show clearly how the density of ice may be determined.

4. What are the principal gases in the air? In what proportion by volume do they occur? Describe the experiments upon which you base your answer.

5. Describe the preparation and properties of carbon-dioxide gas.

6. (*a.*) Tell what you have learned of chemical combustion in the body.
(*b.*) Discuss at least two great purposes that plants serve in nature.

GREEK. (Time, 2 hours.)

1. Decline in agreement: ἡ μικρὰ κώμη; ὁ χρυσοῦς θώραξ; πᾶς πόλις; τρεῖς γέροντες (plural only); εἷς ἡγεμών (singular only).

2. Write the genitive singular, accusative singular, nominative plural and dative plural of: πατήρ, ἄστυ, βασιλεύς, σῶμα, τριήρης, βοῦς, ἀνήρ, γυνή, ναῦς, παῖς.

3. Write the dative singular, genitive plural, and accusative plural (all genders) of: πολύς, ἡδίων, ἀληθής, λύσας, λυθείς, οὗτος.

4. Compare the adjectives: στενός, δεῖνος, ἡδύς, αἰσχρός, ἀληθής.

5. Conjugate:—
(*a.*) The first aorist imperative passive of λύω.
(*b.*) The first aorist subjunctive active of γράφω.
(*c.*) The perfect indicative active of θαυμάζω.
(*d.*) The present optative active of τιμάω.
(*e.*) The present subjunctive middle of φιλέω.
(*f.*) The present indicative passive of δηλόω.

6. Write the active, middle, and passive infinitive forms of ποιέω.

7. Write the principal parts of: πέμπω, λείπω, ἄγω, νικάω, ἀκούω, φεύγω, βούλομαι, ἀφικνέομαι, γίγνομαι.

8. Translate:—
(*a.*) καὶ σὺν αὐτοῖς μὲν εἴην ἂν τίμιος, αὐτῶν δὲ εἰ ἔρημος εἴην, οὐκ ἂν ἱκανὸς εἴην τοὺς φίλους ὠφελεῖν.
(*b.*) οἱ πρόσθεν ἡμῖν βοηθήσαντες τοὺς ὅρκους λελύκασιν.
(*c.*) συμβουλεύω ἐγὼ τὸν ἄνδρα τοῦτον ἐκποδὼν ποιεῖσθαι, ἵνα μηκέτι δέῃ τοῦτον φυλάττεσθαι, ἀλλὰ σχολὴ ᾖ ἡμῖν τοὺς φίλους εὖ ποιεῖν.

9. Translate:—
(*a.*) In these villages the roads were narrow.
(*b.*) We did not send the garrison to the bridge.
(*c.*) But, Cyrus, shall we have supplies?
(*d.*) The enemy will be pursued through the plain by the general.
(*e.*) He would be marching against the king, if he had an army.
(*f.*) Let us besiege the stronghold both by land and by sea.
(*g.*) We do not fear that this man will be made satrap.
(*h.*) If you should do this, we should justly feel grateful.
(*i.*) They destroyed the bridges that the enemy might not follow.
(*j.*) Do not send messengers to the king.
(*k.*) All these barbarians will be more hostile to us than those who are with the king.

Botany. (Time, 1½ hours.)

[Note.—*Answer questions 1 and 2 and any* four *of the rest.*]

1. What are the chief characteristics of—
   (*a.*) The leaves of the Leguminosæ?
   (*b.*) The corollas of the Compositæ?
   (*c.*) The ovary of the Labiatæ *or* the Scrophulariaceæ?
   Illustration sketches are required.

2. Describe the effects of light upon plant-activities.

3. Show with the assistance of examples how to distinguish (*a*) Two closely related genera; (*b*) two closely related species.

4. Describe the four commonest methods of leaf-arrangement, stating in how many vertical rows the leaves are in each case arranged.

5. Show that willow flowers are usually insect-pollinated. Is there any reason why the catkins of the willow should be stiffly erect or nearly so, while those of the hazel or the alder are drooping?

6. Give as complete a classification of stems as possible. Make necessary explanations regarding the stems of onion, carrot, thistles (or fireweed).

7. Discuss and illustrate by sketches the methods of root-development. Name plants that illustrate the different types. Include in your sketch and comment on one other important feature of all roots.

8. (*a.*) What are the functions of the calyx?
   (*b.*) Have gymnosperms stigmas? Give a brief explanation.

French. (Time, 2 hours.)

1. Insert in blank spaces the correct form of the relative or of the interrogative:—
   (1.) C'est ce . . . nous avons besoin. (2.) Nous aimons ceux . . . nous aiment. (3.) La lettre de mon ami . . . est arrivée ce matin. (4.) A . . . sont ces enfants? (5.) Le parc . . . je vais me promener. (6.) De . . . université la Sorbonne fait-elle partie? (7.) Je connais la maison . . . vous avez achetée. (8.) . . . lui avez-vous dit? (9.) Demandez-lui . . . a cassé la boîte. (10.) . . . de ces dames est votre tante?

2. Infinitives in brackets to be put into the mood and tense required by the context:—
   (1.) Nous avons (vendre) toutes nos poires; c'est le même marchand qui les a (acheter). (2.) Les oiseaux chantaient pendant qu'ils (faire) leurs nids. (3.) Il n'y a personne qui (savior) cela. (4.) Bien que j'(être) invité, je ne sais si je (pouvoir) être présent. (5.) Quand êtes-vous (arriver), mes dames? Vous vous êtes (coucher) si tard hier soir! (6.) Il faut que j'(aller) chez la couturière. A quelle heure veux-tu que nous (partier)? (7.) Je doute qu'il y en (avoir) de meilleurs. (8.) Je serais allée au marché si je (pouvoir). (9.) Ce matin j'avais fini mon travail quand le facteur (arriver). (10.) Je voudrais bien que vous (venir) avec moi. (11.) Quand vous (aller) chez l'épicier, apportez-moi une livre de thé.

3. Give the French for:—
   (1.) He refuses to say anything. (2.) I was born in Paris. (3.) Most people believe it. (4.) "Where is your hat?" he asked. (5.) My mother doesn't want me to go. (6.) You ought to have spoken. (7.) Make him read it. (8.) I came very near falling.

4. Substitute personal pronoun for expressions in italics:—

(1.) Je parle *à Marie.* (2.) Le professeur montre *la carte.* (3.) J'ai *du papier.* (4.) Il va *à la ville.* (5.) Je prête *mes plumes à Louise.* (6.) Je ne trouve pas *de pommes dans ce panier.* (7.) Il vous présentera *à sa soeur.* (8.) Expliquez *la leçon aux enfants.* (9.) Ne nous prêtez pas *vos livres.*

5. Put into French (with numerals in full):—

(*a.*) (1.) When I was 21 I set out for America. (2.) My question has been answered. (3.) To-day is the 31st of July. (4.) Dinner will be ready at five minutes to six. (5.) I was the first to see it.

(*b.*) (1.) Have you done anything wrong? Nothing, thank you. (2.) There are many Frenchmen in Canada. (3.) What kind of weather will it be this evening? Is it going to rain? (4.) We always shake hands when we meet. (5.) You pay two cents a pound for them when they are cheap. (6.) He sees old age coming without losing his happiness. (7.) It was not necessary for him to come; he didn't owe me anything. (8.) The dress I got made in Paris doesn't fit me. (9.) He will send for a carriage which will come and get us. (10.) Most people like best to begin by doing something easy.

6. Translate:—

(*a.*) Pendant que l'espèce d'Hercule obéissait, madame de la Grenouillère regarda l'être qu'elle venait de sauver. C'était le véritable type du chat de gouttière, et sa laideur naturelle était augmentée par les accidents d'une course longue et irrégulière. Ses poils ras étaient souillés de boue; on distinguait à peine, à travers des mouchetures variées, sa robe grise zébrée de noir. Il était d'une maigreur presque transparente, si efflanqué qu'on lui comptait les vertèbres, si chétif qu'une souris l'aurait abattu; il n'avait pour lui qu'une seule chose, c'était de la physionomie.

(*b.*) Au bout de quelques jours, Moumouth était méconnaissable: son poil avait été lustré avec soin; une nourriture succulente avait arrondi ses formes; ses yeux brillaient comme des émeraudes. Il devait principalement sa bonne mine à la mère Michel, à laquelle il avait voué une affectueuse reconnaissance; il avait, au contraire, pour le père Lustucru une aversion très prononcée. Comme s'il eût deviné qu'il avait affaire à un ennemi, il refusait les aliments que lui présentait le maître d'hôtel; du reste, il le voyait fort peu.

7. Put into French:—

Several days passed in anxious expectation; but Moumouth the cat did not come back. Generous in misfortune, madame de la Grenouillère did not reproach mother Michel; she on the contrary sought (chercher) to calm the poor woman who was unreservedly yielding (s'abandonner) to her grief. One evening she said to her: "What can you do against irremediable trouble? Human wisdom consists in not rebelling (se regimber) against misfortune, in submitting to the decrees of heaven."

GERMAN. (Time, 2 hours.)

1. Add the correct endings to the adjectives used in the following sentences:—

(1.) Der groß—Baum ſteht an der breit—Straſſe. (2.) Mein älter—Bruder hat oft heftig—Kopfſchmerzen. (3.) Er verſchrieb mir eine bitter—Arznei und ſagte: Kommen Sie nächſt—Mittwoch. (4.) Was fehlt meinem jung—Freund? fragte ein alt—Weib. (5.) Ich Unglücklich—, rief er, wie ſoll ich jetzt Brot für die Meinig—verdienen?

2. Conjugate in full in the present indicative:—

(1.) Sich gut unterhalten. (2.) Sich etwas denken.

3. Give the comparative and superlative forms of the following expressions :—

(1.) Ich ſpiele gut. (2.) Im Winter ſind die Nächte lang. (3.) Dieſer groſſe Fluß heiſſt Rhein. (4.) Man reiſt auf dieſe Weiſe gern.

4. Insert in blanks the correct forms of the relative :—

(1.) Das Beſte, . . . ich habe, will ich dir geben. (2.) O Gott, . . . im Himmel iſt! (3.) . . . andern eine Grube gräbt, fällt ſelbſt hinein. (4.) Er will zur Stadt zurück, in . . . . er geboren wurde. (5.) Ich traf einen Freund, ... ich lange nicht geſehen hatte. (6.) Er will nicht ſtudieren, . . . ſchade iſt. (7.) Ich ſehe ein Haus, ... Dach rot iſt. (8.) Die Federn, mit . . . . wir ſchreiben, ſind Füllfedern.

5. Rewrite the following with the verb (*a*) in the imperfect, (*b*) in the perfect :—

(1.) Was wird aus dem Briefe? (2.) Wir leiden an Zahweh. (3.) Das Kind denkt an ſeine Eltern. (4.) Er vollendet immer, was er anfängt. (5.) Die Zeitungen erzählen uns, was in der Welt geſchieht. (6.) Ich muß den Vater erſt fragen.

6. Complete the following sentences by adding a suitable preposition with the article or possessive adjective :—

(1.) Wir kämpfen——Feind. (2.) Die Arbeit wird oft——ſchlechte Wetter verhindert. (3.) Er wohnt——Onkel. (4.) Die ſchwarze Katze war——Tiſche. (5.) Die Brücke führt——Fluß.

7. Answer in full the following in German :—

(1.) Um welche Zeit wird der Weizen geſät? (2.) Wie viel Uhr iſt es, wenn der Minutenzeiger auf ſechs und der Stundenzeiger zwiſchen eins und zwei ſteht? (3.) Wie grüſſen Sie eine Dame, wenn Sie ihr begegnet? (4.) Was hätten Sie gern getan, wenn Sie Geld genug gehabt hätten?

8. Translate :—

(1.) People should assist not only their friends, but also their enemies. (2.) We should always do what we can to help others. (3.) Charles, please shut the door when you go out. (4.) When one invites guests to dinner, one must purchase what is necessary. (5.) It is to be hoped we shall meet again this evening. (6.) Goethe and Schiller were German poets; the latter died in 1805 and the former in 1832.

9. Translate :—

(*a*.) Hoch in der Luft zog ein Schwarm wilder Schwäne, einer davon ſank mit ermatteten Flügeln tiefer und tiefer, ſeine Augen folgten der luftigen Karawane, die ſich mehr und mehr entfernte; weit ausgebreitet hielt er die Flügel und ſank, wie die Seifenblaſe ſinkt in der ſtillen Luft; er berührte die Waſſerfläche, ſein Kopf bog ſich zurück zwiſchen die Flügel, ruhig lag er da, gleich der weißen Lotos-blume auf dem ſtillen Landſee. Und ein leiſer Wind erhob ſich und kräuſelte die leuchtende Meeresfläche, ſtrahlend erſchien ſie, als ſei es der Äther, der ſich in großen breiten Wogen dahinwälzte; und der Schwan erhob ſeinen Kopf, und das leuchtende Waſſer ſpritzte wie blaues Feuer über ſeine Bruſt und ſeinen Rücken. Die Morgendämmerung beleuchtete die roten Wolken, der Schwan erhob ſich geſtärkt und flog gegen die aufgehende Sonne, gegen die bläuliche Küſte, wo die Karawane hingezogen war, aber er flog allein, mit Sehnſucht in der Bruſt, einſam flog er über die blauen ſchwellenden Wogen.

(*b.*) Die Sängerin bestieg scherzend die Bühne des Altertums und sang. Der Ort begeisterte sie; ich mußte an das wilde Pferd Arabien's denken, wenn es schnaubend die Mähne sträubt und von dannen jagt, es war dieselbe Leichtigkeit und Sicherheit; ich mußte an die schmerzerfüllte Mutter unter Golgatha's Kreuz denken, es war derselbe tief gefühlte Schmerz. Und ringsum ertönte, wie vor tausend Jahren, Beifall und Jubel: „ „Glückliche, vom Himmel Begabte!" " jubelten alle. Fünf Minuten später war die Bühne leer, die Gesellschaft verschwunden, keine Töne wurden mehr gehört,—alle fort, aber die Ruinen standen unverändert, wie sie noch nach Jahrhunderten stehen werden, und niemand weiß dann etwas von dem Beifalle des Augenblicks und von der schönen Sängerin, von ihren Tönen, ihrem Lächeln; alles ist vergessen und vorüber, selbst für mich wird diese Stunde ein entschwundener Moment sein.

Advanced Course, Junior Grade; Full Course, Junior Grade; and Second-year Course, Commercial.

ENGLISH LITERATURE. (Time, 2 hours.)

1. Quote *one* of the following:—
   (*a.*) The sonnet beginning—
   "Two Voices are there; one is of the Sea."
   (*b.*) A stanza on "Freedom," from Childe Harold.
   (*c.*) Two stanzas from Scott's "Outlaw."

2. Name the poem from which each of the following is taken. Explain the passage briefly but carefully.
   (*a.*) "We look before and after,
   And pine for what is not."
   (*b.*) "The kirk was deck'd at morning-tide
   The tapers glimmer'd fair."
   (*c.*) "This City now doth like a garment wear
   The beauty of the morning."
   (*d.*) "Thou wast not born for death, immortal Bird!
   No hungry generations tread thee down."
   (*e.*) "For him no wretches, born to work and weep,
   Explore the mine, or tempt the dang'rous deep."
   (*f.*) "The Niobe of nations! there she stands
   Childless and crownless in her voiceless woe."

3. Sketch vividly city life in England as Goldsmith saw it. What reasons have you for believing that he was a prejudiced observer?

4. Write brief answers to the following:—
   (*a.*) Why does the note of the cuckoo afford Wordsworth so much joy?
   (*b.*) If we may judge by the prescribed selections with what does Scott delight to associate beautiful or striking scenes in Nature?
   (*c.*) Point out several of the most impressive nature descriptions in Childe Harold. What do these suggest to us regarding the poet's taste?
   (*d.*) What are the main thoughts that possess Shelley as he listens to the song of the Skylark?
   (*e.*) In Keats's poem, Autumn, what is characteristic in the poet's manner of presenting the scene?

5. What were Byron's feelings with regard to Austria, France, the United States, and Britain respectively? Could he know these countries at present, do you think his feelings would undergo any change? Give reasons.

6. Yet, Italy, through every other land
Thy wrongs should ring, and shall from side to side;
Mother of Arts! as once of arms; thy hand
Was then our guardian, and is still our guide;
Parent of our religion! whom the wide
Nations have knelt to for the keys of heaven!
Europe, repentant of her parricide,
Shall yet redeem thee, and, all backward driven,
Roll the barbarian tide, and sue to be forgiven.

(*a.*) Scan line 6.

(*b.*) What name is given to this stanza-form? Why?

(*c.*) Paraphrase the stanza in good prose, bringing out its meaning clearly.

ENGLISH GRAMMAR. (Time, 1½ hours.)

A. Waddling over the scarred and pitted ground, which rendered Vimy Ridge *the* more *difficult* to cross, the uncouth tanks, *like* prehistoric *monsters* in appearance, steadily advanced to destroy the strongholds of the machine gun, *while* the brave Canadians, *eager* to close with the enemy, clambered over the tangled debris left by the ceaseless *pounding* of the British guns.

B. *So* live *that*, *when* thy summons comes to join
The innumerable caravan *which* moves
To that mysterious realm *where each* shall take
His chamber in the silent halls of death,
Thou go not *like* the quarry-slave at night
Scourged to his dungeon; but, sustained and soothed
By an unfaltering trust, approach thy grave
Like *one* who wraps the drapery of his couch
About him and lies down to pleasant dreams.

1. Write out in full each dependent clause in A and B, giving its kind and relation.
2. Give the part of speech and the relation of the italicized words in A and B.
3. Write out in full the infinitive phrases in A and B, giving the value and relation of each.
4. Write out in full the participle phrases in A and B, giving the value and relation of each.
5. Define indicative mood, subjunctive mood, and imperative mood, giving examples from B.
6. Select from A examples of the attributive, appositive, and predicative adjectives.
7. In the days of Ivanhoe the English language contained words derived from many sources —Celtic, Roman, Saxon, Danish, and Norman. Give the source of the following: Lincoln, reeve, Avon, pork, by-law, Walton, alderman, claymore, veal, riding.

ALGEBRA. (Time, 2 hours.)

[N.B.—*All work must be shown. It must be neat and accurate.*]

1. (*a.*) Simplify $42\left\{\frac{4x-3y}{6}-\frac{3}{7}(x-\frac{4}{3}y)\right\}-56\left\{\frac{1}{7}(3x-2y)-\frac{3}{8}(\frac{16}{3}x-y)\right\}$.

   (*b.*) Divide $x^4+\frac{9}{4}x^3+\frac{21}{8}x^2+\frac{33}{16}x+\frac{5}{16}$ by $x^2+\frac{3x}{2}+\frac{1}{4}$.

   (*c.*) Solve $4x+2y+z=14$, $3x-y+2z=3$, $x+7y-z=23$.

2. Resolve into factors :—

   (*a.*) $4x^2-25y^2+2x+5y$.

   (*b.*) h^6-k^8.

   (*c.*) $3x^4+2x^2y-56y^2$.

   (*d.*) $x^4+y^4-11x^2y^2$.

   (*e.*) $4ab(ab+1)-15$.

   (*f.*) $1-(m^2+p^2)-2mp$.

   (*g.*) $h+3k+h^3+27k^3$.

   (*h.*) x^4+4y^4.

3. (*a.*) Find the highest common factor of $a(a+c)-b(b+c)$, $b(b+a)-c(c+a)$, and $c(c+b)-a(a+b)$.

   (*b.*) Find the lowest common multiple of $(a-c)^2-(b-c)^2$, $a^2+b^2-2ac-2bc+2ab$, and a^4-b^4.

4. Simplify :—

   (*a.*) $$\frac{\frac{a}{1+a}+\frac{1-a}{a}}{\frac{a}{1+a}-\frac{1-a}{a}}.$$

   (*b.*) $$\frac{1}{x-\frac{1}{x+\frac{1}{x}}}-\frac{1}{x+\frac{1}{x-\frac{1}{x}}}.$$

5. (*a.*) Multiply $a^2-2ax+4x^2-\frac{16x^3}{a+2x}$ by $3-\frac{6x(a+4x)}{a^2+2ax+4x^2}$.

   (*b.*) Divide $\frac{2}{x}-\frac{1}{a+x}+\frac{1}{a-x}$ by $\frac{a+x}{a-x}-\frac{a-x}{a+x}$.

6. (*a.*) Express the following as algebraical equations :—

   (i.) A has x dollars and B has y dollars; after A gives B z dollars B has \$5 less than five-ninths of what A has.

   (ii.) A train runs up grade m miles in h hours; on the return trip it increases its rate of speed 4 miles per hour and makes the run in x hours less time.

   (*b.*) A collection of quarters, ten-cent pieces, and five-cent pieces, containing 32 coins, is worth \$3.60. There being twice as many five-cent pieces as quarters, find the number of each kind of coin.

Advanced Course, Junior Grade, Applied Science; and Full Course, Junior Grade, Applied Science.

Geometry. (Time, 2 hours.)

[Note.—*Draw neat figures, use printed capitals, and give authorities.*]

1. (*a.*) Any two angles of a triangle are together less than two right angles.
   (*b.*) What corollary follows from this proposition?

2. (*a.*) Construct a triangle, having given the base, the difference of the angles at the base, and the difference of the remaining sides.
   (*b.*) When is this problem impossible?

3. A straight rod of given length slides between two straight rulers placed at right angles to one another. Find the locus of its middle point.

4. The angle at the centre of a circle is double of an angle at the circumference, standing on the same arc.

5. Any two parallel tangents to a circle intercept on any third tangent a segment which subtends a right angle at the centre of the circle.

6. If in a circle two chords cut one another, which do not both pass through the centre, they cannot both be bisected at their point of intersection.

7. (*a.*) In an acute-angled triangle the perpendiculars drawn from the vertices to the opposite sides bisect the angles of the pedal triangle through which they pass.
   (*b.*) Enunciate a corollary, which follows from the above theorem, relating to the sides of the pedal triangle.

Algebra. (Time, 2 hours.)

[N.B.—*All work must be shown. It must be neat and accurate.*]

1. (*a.*) If $a=2$, $b=3$, $c=1$, $q=4$, $r=6$, find the value of $5a^bc^r - 3^a2^b + 2^ra^5 - c^bb^q$.
   (*b.*) Solve $\frac{1}{4x}+\frac{1}{3y}=2=2\left\{\frac{1}{y}-\frac{1}{2x}\right\}$.
   (*c.*) Find the cube root of $54 - 27x^3 + \frac{8}{x^6} - \frac{36}{x^3}$.

2. Resolve into factors :—
   (*a.*) $x^4+y^4-7x^2y^2$.
   (*b.*) $51-14a-a^2$.
   (*c.*) $pn(m^2+1)-m(p^2+n^2)$.
   (*d.*) $x^2y+3xy^2-3x^3-y^3$.
   (*e.*) $2(a^4b^2+5)-9a^2b$.
   (*f.*) $a(a-1)x^2+(2a^2-1)x+a(a+1)$.
   (*g.*) $4r^4+81t^2$.
   (*h.*) $4(ab+cd)^2-(a^2+b^2-c^2-d^2)^2$.

3. Simplify :—

(*a.*) $\dfrac{1+8x^3}{(2-x)^2} \times \dfrac{4x-x^3}{1-4x^2} \div \dfrac{(1-2x)^2+2x}{2-5x+2x^2}$.

(*b.*) $\left(x^{\frac{n}{n+1}}\right)^{n^2-1} + \dfrac{\sqrt{x^{2n}}}{x}$.

4. Solve :—

(*a.*) $ax+by=l,\ bx+ay=m.$

(*b.*) $\dfrac{4}{x-1} - \dfrac{5}{x+2} = \dfrac{3}{x}$.

5. Solve :—

(*a.*) $x^3-y^3=56,\ x^2+xy+y^2=28.$

(*b.*) $\dfrac{1}{1-x} + \dfrac{1}{\sqrt{x}+1} + \dfrac{1}{\sqrt{x}-1} = 0.$

6. (*a.*) Find the value of $\dfrac{\sqrt{a}}{\sqrt{a}-\sqrt{x}} \div \dfrac{\sqrt{a}+\sqrt{x}}{\sqrt{x}}$.

(*b.*) What are eggs worth a dozen when three less for 45 cents would increase the price $\frac{1}{2}$ cent each ?

Second-year Course, Commercial.

Spelling. (To be dictated.) (Time, 1 hour.)

[Note.—*The Presiding Examiner, when dictating this paper, will pronounce each word and phrase distinctly. He will also allow a reasonable time for writing each word and phrase before the following one is pronounced.*]

1. Supersede, statistics, precede, arrears, resuscitate, preferred, heinous, anonymous, pseudonym, embarrassment, hemorrhage, tacit, auxiliary, appalling, peritonitis, pecuniary, mayoralty, plumber, chancery, encomium, journeys, subpoena, innuendo, skein, schism, inoculate, hieroglyphics, synthesize, accruing, egregious, mahogany, responsible, psychology, parvenu, fascinate, battalion, chamois, scrutineer, reticent, interpreter, travesty, obloquy, inimical, buffet, despicable, calumny, mitigation, clearance, cyclometer, oppressor, ingenuous, incomparable, dependent, disseminate, bona fide, concurred, itemize, discernible, hosiery, volatile, delinquent, collegiate, inheritance, conscious, formally, opaque, stratagem, impetus, defendant, perpetuity, inevitable, twelfth, celebrity, secede, until, recommend, particle, hybrid, requisition, naphtha, bituminous, prophecy, symptom, valiant, aforesaid, lucre, chiffon, omelet, acetic, realm, eulogy, unique, excise, pristine, shriek, reimburse, technical, utilitarian, subterfuge, hypothesis.

2. Petition the city council; imminent danger; edible fruits; a steep ascent; a partition or dividing wall; an accepted truth or principle; Secretary and Treasurer of the Manufacturers' Association; an eminent politician; audible sounds; a stationary engine; the torn envelope; a serial story; a carton of sugar; books and stationery; ladies' and children's shoes; waive protest; Province of Saskatchewan; wave the flag; emigrate from Canada; the principal clause; the school principal; French accent; lose your way; buy milk at the dairy; tenement house; undefined boundary; a cereal or grain plant; an amusing cartoon; write a diary; the occupant or tenant; an indefinite statement; loose clothing; men of large stature; carrot, a vegetable; the stone quarry; diverse opinions; prefer the latter; a later proffer; massage treatment; gold twenty carats fine; a sedentary occupation; shorthand characters and symbols; the speaker's sentiments; ride in a hansom; telegraphic message; to envelop or entirely surround; confident of victory; sea divers; the assent of the sovereign to bills passed by Parliament; sediment in the liquid; the indited sentence; to accomplish his purpose; cymbals or musical instruments; an associate or accomplice; indebted to his creditors; his confidant and adviser; the learned counsel's advice.

TYPEWRITING.

[NOTE TO PRESIDING EXAMINER.—*Please provide each candidate with plain white letter paper and one sheet of carbon paper.*

[NOTE.—*Candidates are allowed 5 minutes to read over this paper. Time allowed for Section A, 10 minutes. Section B is to be written in full and the time taken by each candidate to be recorded by the Presiding Examiner. Write each part of Section B on a separate sheet of paper, and hand in carbon copies with originals. A carbon copy of Section A is not required.*]

Section A.

And, therefore, first of all, I tell you earnestly and authoritatively (I know I am right in this), you must get into the habit of looking intensely at words, and assuring yourself of their meaning, syllable by syllable—nay, letter by letter. For though it is only by reason of the opposition of letters in the function of signs, to sounds in the function of signs, that the study of books is called "literature," and that a man versed in it is called, by the consent of nations, a man of letters instead of a man of books, or of words, you may yet connect with this accidental nomenclature this real fact—that you might read all the books in the British Museum (if you could live long enough), and remain an utterly "illiterate," uneducated person; but that if you read ten pages of a good book, letter by letter—that is to say, with real accuracy—you are forevermore in some measure an educated person. The entire difference between education and non-education (as regards the merely intellectual part of it) consists in this accuracy. A well-educated gentleman may not know many languages, may not be able to speak any but his own, may have read very few books. But whatever language he knows, he knows precisely; whatever word he pronounces, he pronounces rightly; above all, he is learned in the peerage of words; knows the words of true descent and ancient blood, at a glance, from words of modern canaille; remembers all their ancestry, their intermarriages, distant relationships, and the extent to which they are admitted, and offices they hold, among the national noblesse of words, at any time and in any country. But an uneducated person may know, by memory, many languages, and talk them all, and yet truly know not a word of any—not a word even of his own. An ordinary clever and sensible seaman will be able to make his way ashore at most ports; yet he has only to speak a sentence of any language to be known for an illiterate person; so also the accent, or turn of expression of a single sentence, will at once mark a scholar. And this is so strongly felt, so conclusively admitted, by educated persons, that a false accent, or a mistaken syllable is enough, in the parliament of any civilized nation, to assign to a man a certain degree of inferior standing forever.—John Ruskin: Sesame and Lilies.

(415 words.)

Section B.

1. Vancouver, B.C., June 26, 1917. Mr. Henry W. Wilson, Empress Hotel, Victoria, B.C. Dear Sir: In compliance with your request, we have reserved Lower Berth No. 9, Car 6704, Train No. 93, Vancouver to Montreal, Que., leaving Vancouver 8.20 p.m., June 28. Yours truly.

2. Toronto, Ontario, June 20, 1917. Mr. David L. Price, New Westminster, B.C. Dear Mr. Price: Recently in response to your request for information concerning correspondence instruction, we sent you a bulletin containing a list of the courses offered by this Bureau. We trust that it reached you promptly and gave you the desired information. ¶ Thus far, we do not seem to have heard further from you. I write to ask whether there may be any matters connected with our courses, that are not fully explained in the bulletin, on which you desire further information. If so, I should be pleased to give it, or to answer any questions which you may wish to ask. ¶ You can hardly have given up the idea of self-improvement by the method of correspondence instruction. Home study by this method is not an experiment. Its success has been fully demonstrated. We now have thousands of students and the number is increasing daily. Many of them have done most excellent work —we are proud of what they have accomplished. It is the best evidence of the success of the service that we render. You can do as well as they, and we are glad to offer you the opportunity. ¶ The University Extension Division is trying to render the most useful service to the largest possible number of people. Our work is not on a money-making basis, but is being promoted for the benefit of all persons who desire to avail themselves of it. We should be glad to have you profit by our service. Whether you care to enrol or not, you may have friends to whose attention you might bring the work we are trying to do. If you will speak of our courses to them, we shall be grateful. ¶ I enclose a blank for your use in case you should decide now to enrol. Any communication from you will receive prompt attention. ¶ Hoping to hear from you shortly, I am, Very sincerely yours, Secretary, Bureau of Correspondence Instruction.

3. Toronto, Ontario, Canada, June 25, 1917. Messrs. C. F. Harrison & Co., Limited, Bridgetown, Barbados, B.W.I. Gentlemen: In reply to your favour of the 29th ult., we have much pleasure in enclosing descriptive literature, showing illustrations and specifications of our Export Model Bicycles. ¶ For several years we have done quite a considerable business with both "Massey" and "Red Bird" bicycles in Australasia and New Zealand in competition with British and foreign makes. In fact, the bicycles we have shipped to Australasia were our regular Canadian Models, while the machines illustrated herewith are made to conform more in general appearance to the British machines, and include such points as square cranks, extension mud guards, steel rims, and front rim brakes. ¶ These bicycles must not be confused with what are commonly known abroad as American machines. They are high grade, and for easy running, durability, and finish, will compare with any bicycle built anywhere in the world. Considering the high quality of our machines, we believe you will find the quotations very favourable. ¶ We trust you will send us your trial order which we feel sure will result in leading to considerable business between us. ¶ Awaiting your reply with interest, we are, Yours very truly.

4. Write the following invoice properly centred on the sheet (no vertical ruling required) :—

THE EBY, BLAIN CO., LTD., Toronto, Ont., sell to Messrs. J. A. Hopkins, North Vancouver, B.C.

	Price.	30 dys.	Net Cash.	90 dys.
2 kegs Snowflake Baking Soda	2.25	.....		
5 doz. Corkscrew Can Openers	.85	.....		
4 doz. Imperial Pickles, Mixed	1.00	.....		
4 doz. Shino, 5 cts	.45	.....		
2 cs. Toasted Corn Flakes	2.85	.....		
6 bx. Taylor's Carbolic Soap	.40	.....		
10 cs. King Edward Matches	3.60	.....		
6 dz. Chloride of Lime, 1's	.85	.....		
10 cs. Quaker Puffed Rice	2.90	.....		
2 cs. Cowan's Cocoa, ¼'s	1.30	.....		
4 dz. Cow Brand Baking Soda, 5 cts	.45	.....		
3 cs. Gold Medal Table Syrup, 2's	2.25	.....		
3 dz. Magic Baking Powder, 5 cts	.75			.....
2 dz. Red Cross Baking Powder, 5 cts	.45			.....
2 dz. Nonsuch Stove Polish, 10cts	.90			.....
8 lb. Jumbo Roasted Peanuts	.15		.....	

SHORTHAND THEORY. (Time, 1 hour.)

1. When do you use the circle, and when the stroke in writing *s*? Illustrate your answer with several examples.

2. Name and illustrate the use of :—

   (*a.*) The prefixes.

   (*b.*) The suffixes and terminations.

3. Write outlines for the following words: Courage, carriage, property, propriety, preparation, appropriation, factor, factory, regard, regret, poor, pure, learned (verb), learned (adjective). impatient, impassioned, prosecute, persecute, staid, steady, purpose, propose, petrify, putrefy, favoured, favourite, considerate, considered, provide, pervade.

4. "In order to obtain more facile outlines, certain medial consonants may be omitted." Give three rules with examples to illustrate the above.

5. Write in fully vocalized shorthand the following words: Chagrin, salvationist, elegancies, foundation, pyramid, arisen, amalgam, apportionment, elusive, civilian, blemished, remunerative, shoulders, social, permanency, microscope, incalculable, silverware, aspirer, fairer, coercion, geography, spaniel.

6. Write in your briefest reporting style :—

   A gentleman, who was himself the principal manager of one of the most important railways in this country, once remarked that the secret of good management in any business or trade was to attend strictly to one thing at a time. He never tried to

do two things at once, and we are told that he resisted, too, any attempt on the part of other gentlemen to make him alter his rule. If he had a meeting with one person, whether that person was the chief of a department, a medical doctor, a scripture reader for some religious society, or an advocate for some new work of the Christian religion—it mattered not; he would see no one else until he had done with the business in hand. If others called they had to wait till the first visitor went away, which might be in ten minutes or in half an hour; or they could call again upon a more favourable opportunity. "One at a time, and let each take his turn," was the rule he put down for himself, and by following it steadily he got through an amount of work that I believe would have been altogether above and beyond the powers of most gentlemen. The number of people who interviewed him each week was incredible, and though they did not all go away equally well pleased with themselves and with him, yet they seldom failed to thank him for his courtesy of manner and language, and they never accused him of want of thought. To be sure, he would not always see eye to eye with those who came to meet him, nor could he approve of the methods of all who worked near him. In several instances he was known to send out for an official that he might tell him his duties, and give him a warning if he had done wrong. He never made light of a serious offence, but no man was ever called upon to explain a mere slip, and no one was sent away, however serious his fault might be, till it was impossible to doubt his guilt.

SHORTHAND DICTATION.

[NOTE.—*The Presiding Examiner will read each section twice; first, rapidly, and secondly, at the rate of one hundred words per minute. Candidates will write at the second reading only. When all the dictation has been given, the candidates shall be allowed forty minutes in which to reproduce their work in longhand. Both shorthand and longhand are to be handed in. Candidates may use either pen or pencil in writing their shorthand.*]

1. Gentlemen: We have on hand an oversupply of Stenographers' Note Books. In order to dispose of our surplus stock before our July inventory, we shall (25) quote prices as per the attached list for the next thirty days, or as long as the supply lasts up to that time. We shall (50) be pleased to submit samples, or have our representative call at your request. Yours very truly (66).

2. Dear Mr. Martin: You have doubtless overlooked the matter of your membership dues for 1917, and we take the liberty of bringing it to (25) your attention now. We take it for granted that you expect to continue with us. We believe the Association offers exceptional returns for the small (50) investment, and at the same time, exceptional opportunities for helpfulness through your identification with it.
   If you intend to continue your membership, but find you (75) are unable to pay the dues at once, kindly signify your intention by filling in the enclosed renewal blank, noting thereon when we may expect (100) payment, and return the blank to us in order that there may be no break in our records. Cordially yours (120).

3. Dear Sir: I wish you would look over this booklet, and after reading it, give our representative a few minutes to show you what the *Burroughs* (25) is doing for business schools.
   If he cannot demonstrate to your satisfaction that the Burroughs will not only assist you in taking care of (50) the business you already have, but prove to be an effective business getter for your school, he will not trouble you further.
   Kindly sign the (75) card—there is no expense or obligation. At any rate, please read the booklet. Yours truly (91).

4. Gentlemen: We have completed the audit of the accounts of your Company to the 31st May last, and we now hand you interim and (25) approximate Balance Sheet at that date, which is certified by us so far as clerical accuracy only is concerned. You will notice that the Suspense (50) Account does not represent the final balance received from the old Company, inasmuch as averages amounting to over $1,500 (75) have been collected by the Limited Company on account of the old Company, and against this amount insurance calls have been paid for liabilities incurred (100) prior to the formation of the Company. As soon as all these items have been finally settled, an adjustment of the Suspense Account between the (125) old partnership and the Company will be necessary. Yours faithfully (135).

5. Dear Sir: We invite your examination of the enclosed blotters for advertising purposes. Unlike most printed matter, they are not thrown into the waste basket (25) but will be retained and used for some time.

We shall be pleased to negotiate with you for a yearly supply, to be delivered monthly (50). At our up-town office, which is equipped for the purpose, we can address and mail them for you. At this office, 1308 (75) Arch Street, imitation typewritten letters will be printed, folded, enclosed, addressed, and mailed at reasonable prices.

Catalogues, booklets, circulars, folders, labels, office stationery, etc., (100) can be printed in our modern shop, which has facilities for turning out artistic advertising matter. We have our own bindery, which we equipped with (125) folding machines so as to facilitate our production processes and to effect quicker deliveries.

Orders for designing, engraving, and steel plate printing will be executed (150) in the very best manner. Power presses of recent manufacture have been installed, ensuring the production of high-class stationery. Yours very truly (173).

COMPOSITION. (Time, 2 hours.)

[NOTE TO PRESIDING EXAMINER.—*Please provide candidates with plain white letter paper.*]

1. (*a.*) Having in mind Washington Irving's description of the Bobolink, give an outline for a short composition.

   (*b.*) This description possesses artistic qualities of style. Point out what characteristics make it "artistic."

2. Explain the difference between *simile* and *metaphor*, giving an example of each.

3. In a concise letter to the Premier of British Columbia, give your views on Prohibition.

   [N.B.—Special attention will be paid to the form of your letter. Use the letter paper provided.]

4. Write an essay on *one* of the following subjects:—

   (*a.*) Venice. (Byron's Childe Harold.)

   (*b.*) She Was a Phantom of Delight. (Wordsworth.)

   (*c.*) The Entrance of the United States into the War.

BOOK-KEEPING. (Time, 2½ hours.)

[NOTE.—*The attention of candidates is called to the importance of neat as well as accurate work.*]

1. At the close of the year Interest and Discount Account in your ledger appears as follows:—

Dr. INTEREST AND DISCOUNT. *Cr.*

1916.		1916.	
Feb. 3. To J. Simpson & Co.	$17.60	May 11. By Cash	$12.90
„ 17. „ Bills Receivable	9.20	July 5. „ Bills Payable	5.10
Oct. 12. „ Cash	15.00		

There is interest accumulated on notes to the amount of $22.10 in your favour. Close the account, leaving it ready for next year. What other accounts are affected? How?

2. The account of the Review Printing Co. for the past month has been rendered to you. You have picked out the items, and, having added them under their respective heads, have found the summary to be as follows:—

Expense items	$ 8.30
Advertising items	56.50
Mdse. items	190.10
Your personal items	2.00
	$256.90

Make the journal entry for this.

3. Your note in favour of The Morris Electrical Construction Co. for $500 is due to-day, but you cannot pay it. There is also the sum of $40.50 to their credit in your ledger. You pay them $100, and give them a new note to cover the balance due them, $440.50.

Give: (*a.*) Your journal entry.

(*b.*) The journal entry of The Morris Electrical Construction Co.

4. John Hardy of Victoria drew a draft for $250 at 60 days' date on Charles Young of Vancouver in favour of Robert Smith of Vancouver. Young duly accepted the draft. In the course of business Smith transferred the acceptance to you.

Give: (*a.*) Hardy's entry when he drew the draft.

(*b.*) Smith's entry when he received the draft.

(*c.*) Young's entry when he accepted the draft.

(*d.*) Smith's entry when he transferred the acceptance to you.

(*e.*) Your entry when you received the acceptance.

5. When taking charge of the books of the partnership firm of Stone and Mason you found the ledger in confusion, and you concluded it best to open a new set of accounts. You waited till the regular stock-taking time, and then prepared the following statement of assets and liabilities:—

Assets—

Cash	$ 175
Merchandise, as per inventory	9,300
Bank, on deposit	3,700
Plant, as per valuation	7,200
Bills Receivable, on hand	2,800
Office Furniture, inventory	500
Real Estate, valuation	7,400
Accounts Receivable, conservative valuation	4,000
	$35,075

Liabilities—

Mortgage Payable	$ 2,800
Bills Payable	5,700
Accounts Payable	2,420
	$10,920

The partners had equal interests in the business. Show the new set of ledger accounts.
After the ledger was opened you found that an invoice of goods amounting to $560, bought from John Fraser and Co., on account, had not been entered at the time of purchase. Enter this now in your ledger.

6. Manning and Morrison are partners, sharing profits and losses—Manning, two-thirds; Morrison, one-third. They have failed and the following is their position as taken from their ledger:—

Assets	$11,100

Liabilities—

Due creditors on Bills Payable and open account	$ 6,000
Manning, capital account	3,500
Morrison, capital account	1,600
	$11,100

At a sale their assets realize only $6,000.
Show the partners' capital accounts in their final form.

7. "Cut down the ledger by making subsidiary books do the work." Name six of the more common of these books and state accurately their use and their relation to the ledger. Of what importance are these books when you are taking a trial balance and preparing a financial statement for the year?

8. From the following ledger totals and other information prepare: (*a*) A Profit and Loss Statement; (*b*) a Statement of Assets and Liabilities.

	Dr.	*Cr.*
Capital	$ 750	$ 5,600
Cash	16,259	15,900
Bank	15,500	13,760
Merchandise	13,740	16,410
Accounts Receivable	14,975	11,995
Real Estate	4,000	
Bills Payable	2,500	5,170
Accounts Payable	10,495	11,800
Horse, Vehicles, etc.	850	
Office Furniture	350	
Expense	1,216	
	$80,635	$80,635

Merchandise inventory	$3,260
Value of Real Estate	3,500
Horse, Vehicles, etc., value	900

Write 5% off Accounts Receivable.
Write 10% off Office Furniture.

9. A Joint Stock Company has a paid-up capital of $100,000. The net profits for the year are $8,962.60. A dividend of 7% is declared, and the same is paid by cheque. The sum of $1,000 is passed to Reserve Account.
Journalize this, *or* show it entered in the ledger.

PENMANSHIP. (Time, 1 hour.)

1. Write the following:—

In a turquoise twilight, crisp and chill,
A kafila camped at the foot of the hill.
Then blue smoke-haze of the cooking rose,
And tent-peg answered to hammer-nose;
And the picketed ponies, shag and wild,
Strained at their ropes as the feed was piled;
And the bubbling camels beside the load
Sprawled for a furlong adown the road;
And the Persian pussy-cats, brought for sale,
Spat at the dogs from the camel-bale;
And the tribesmen bellowed to hasten the food;
And the camp-fires twinkled by Fort Jumrood;
And there fled on the wings of the gathering dusk
A savour of camels and carpets and musk,
A murmur of voices, a reek of smoke,
To tell us the trade of the Khyber woke.

2. (*a.*) Group the capital letters as well as you can according to the similarity of their formation, and write two lines of each group.
(*b.*) Treat the small letters in the same way.

3. Write the following rapidly six times:—
The young man who wants to succeed in business keeps before him this question: "What am I doing day by day, week by week, month by month, year by year, to build up my personal assets, my business knowledge, my producing ability?"

4. Write the following addresses:—
F. Z. Thompson, 2678 East 49th St., New York.
Delphoritz, Winch & Londres, 345 Main St. West, Chicago, Ill.
Mrs. G. J. Yonge, Calgary, Alta.
The Illuminated Watch and Clock Co., 190 Sparks St., Ottawa, Ont.

ARITHMETIC. (Time, 30 minutes.)

A. Rapid Calculation.

[NOTE.—*The time allowance for Arithmetic, Second-year Course, Commercial, is 2 hours; after the expiration of 30 minutes, answers to Section A (Rapid Calculation) will be collected, and Section B (General) will then be distributed to candidates.*]

1. Customs revenue from the Port of Vancouver, B.C., for the government fiscal years of 1915-16 and 1916-17 is as follows:—

	1916-17	1915-16
April	$466,816 20	$297,515 50
May	531,784 64	356,946 45
June	451,063 71	323,716 03
July	478,087 66	337,846 52
August	610,068 69	379,450 36
September	582,750 67	363,319 55
October	574,991 48	518,537 99
November	554,490 12	463,402 24
December	429,383 57	312,695 41
January	395,822 13	506,525 39
February	542,980 47	444,126 26
March	695,576 48	462,592 69
Totals		

(*a.*) Find the total revenue for the year 1916-17.

(*b.*) Find the total revenue for the year 1915-16.

(*c.*) How much more revenue was collected during the fiscal year 1916-17 than during the fiscal year 1915-16?

(Answers only are required.)

2. A commission agent charges 5% for selling apples. During the months of January and February he sold 2,198 boxes at $1.84 per box. Find his commission.

3. (*a.*) Multiply 356.9875 by 31.02

(*b.*) Divide 6.0008976 by 601.765.

4. Find the total amount of the following bill, less 3% for cash:—

16	lb. Dairy Butter	@38½c.
8	lb. Rice	@ 6¾c.
17.5	lb. B. Sugar	@ 9c.
13	lb. Coffee	@43½c.

5. At $25.80 per thousand board feet, what will it cost to cover with 2" plank a yard 167 feet long and 86 feet wide?

6. A fruit-dealer buys oranges at $4.50 per crate of 200 and sells them at 40 cents a dozen. Find his gain per cent.

7. From $1,440 take: (*a*) 20% of itself; (*b*) 12½% of itself; (*c*) 33⅓% of itself; (*d*) 11$^{1}/_{9}$% of itself; (*e*) 16⅔% of itself.

8. Find the compound interest on $1,600 for two years three months at 5% per annum, compounded yearly.

ARITHMETIC. (Time, 1½ hours.)

B. General.

[NOTE.—*The time allowance for Arithmetic, Second-year Course, Commercial, is 2 hours; after the expiration of 30 minutes, answers to Section A (Rapid Calculation) will be collected, and Section B (General) will then be distributed to candidates.*]

1. Find, true to three places of decimals, the value of:—

(*a.*) The square root of 5.

(*b.*) The cube of the square root of 5.

(*c.*) The decimal equivalent of $^{3}/_{32}$.

2. Give a connection between:—

(*a.*) Capacity, Canadian and Cubical Contents, Canadian.

(*b.*) Weight, Canadian and Capacity, Canadian.

(*c.*) Weight, Metric and Weight, Canadian.

(*d.*) Length, Metric and Length, Canadian.

(*e.*) Capacity, Metric and Weight, Metric.

3. Express as percentages:—

(*a.*) A leakage of 3 pints from a 10-gallon cask.

(*b.*) A tax of 9d. in the £.

(*c.*) The wastage when a shaft 1" diameter, 10" long, is turned from a shaft 1¼" diameter, 12" long.

4. The bank will to-day allow me $653.85 for a note for $660, which has 34 days yet to run. What rate of discount is the bank charging?

5. (*a.*) What sum, invested at the beginning of each year for 3 years at 6% compound interest, will at the end of the 3 years amount to $5,000?

(*b.*) What is the cash surrender value of a perpetuity of $300, if money is worth 5%?

6. Fill in the respective amounts and find the total of the following bill:—

		List Price.	Net Price.	Discount.	Amount.
2½ lb.	1 Pc. 12″ x 8″ Hard Sheet Brass 3/32″ thick.	....	.82 lb.	....	
1 gross.	¾″ No. 8 F.H. Brass Screws	2.00 gr.	....	25 %	
⅔ lin. yd.	30″, 3″ Mesh, Galv. Wire Cloth.....	....	.66 lin. yd.	....	
10 lb.	1½″ Galv. Boat Nails.....	....	16.30 per 100 lb.	....	
⅙ doz.	6/32″ No. 109 Bit Stock Drills.....	3.10 doz.	....	35 %	
⅓ dz. pr.	2″ No. 330 Galv. Rowlocks.....	....	4.50 doz. pr.	....	
1 only.	⅜″ No. 224 Brass Tap, inside.....	.75 each.	....	35 %	
2 "	½″ 45° Brass Elbows	.20 "	....	40 %	
1 "	⅜″ Rough Brass Tee	.28 "	....	40 %	

Laws of Business. (Time, 2 hours.)

1. (*a.*) Name six classes of contracts that must be in writing to be binding.
(*b.*) Give three illustrations of oral contracts that are binding.
(*c.*) What is meant by the *consideration* in a contract?
(*d.*) What is a *penalty clause* in a contract?

2. On June 22, 1917, Geo. H. Benson bought a second-hand delivery automobile from James Hudson for $500, giving his cheque on the Royal Bank of Canada for $250, a draft at 30 days' sight on J. T. Stevens for $50, and his note at 6 months with interest at 8% for $200. Write, in proper form and size, the cheque, the draft, and the note.

3. (*a.*) What are the departments of the business of a bank? Explain each.
(*b.*) What is a Canadian bank prohibited from doing?
(*c.*) What funds has a bank at its disposal?
(*d.*) What provision is made for the security of (i) note-holders, (ii) depositors?
(*e.*) What is the difference between a *current account* and a *savings account?*

4. What is an endorsement? For what purposes are endorsements made? Give the more common forms of endorsement and explain the value of each. Is an endorsement ever used on a non-negotiable note?

5. "A minor is more or less under legal incapacity to contract." What is a minor? To what extent is he under legal incapacity? To what extent is he not? To what extent are parents liable for a minor's actions? For what actions of a minor are the parents not responsible?

6. What is an agent? How is he appointed? How are his duties and powers determined? What precaution should one take when dealing with an agent? Write an agent's receipt for rent collected, supplying names, date, etc.

7. Explain: Affidavit, collateral, innocent holder, equity of redemption, letter of credit, compromise, statute of limitations, power of attorney, unwritten law, accommodation note.

Third-year Course, Commercial.

SHORTHAND DICTATION.

[NOTE.—*The Examiner will read each section twice; first, rapidly, and secondly, at the rate of one hundred and thirty words per minute. Candidates will write at the second reading only. When all the dictation has been given, the candidates will be allowed fifty-five minutes in which to reproduce their work in longhand. Both shorthand and longhand are to be handed in. Candidates may use either pen or pencil in writing their shorthand.*]

1. Dear Sir: We thank you for your order for one copy of Graves' "Students' History of Education." This is being referred to the order department for prompt attention.

   Munroe's "Textbook in the (32) History of Education" lists at $1.90, and Munroe's "Source Book in the History of Education," at $2.25. From the list price, we quote you our regular (65) discount of 20%, carriage being charged for extra.

   We have a complete list of educational works, comprising many subjects, and recommend it for consideration when you are in need of additional books (97). Very truly yours (100).

2. Dear Madam: It is but two years since I introduced the "Dorothy Dodd" shoe. Even in that short time it has achieved a truly phenomenal success, a success that its greater than (32) I had dared to hope for.

   The fact that it was instantaneously so successful, and the fact that its popularity and its sales are increasing at so wonderful a rate, are the best (65) evidence I need offer that if you are not already a wearer of the "Dorothy Dodd" shoe, you should now become one.

   The little "service book" enclosed portrays the leading styles for (97) the spring and summer. It is designed to assist women in deciding just what style of shoe to select for each particular occasion or service. I hope it may prove of interest to (130) you.

   The sale of "Dorothy Dodd" shoes is confined to a single high-grade store in each city, and I ask the favour of your inspection of the new styles which are (162) now on display. Sincerely yours (167).

3. Toronto Business Institute, Toronto, Ontario, Canada. Gentlemen: Dictionaries are all-important in every school. Business schools are no exception, and they, more than any other type of school, demand dictionaries in the (32) handiest form, containing the words of everyday business usage and the new words that the progress of the world has brought into use.

   Webster's New Standard Dictionaries are kept strictly up to date (65). The system of diacritical markings is uniform, and the definitions are concise and clear. They should appeal to every teacher and every pupil in a business school.

   Your attention is invited to (97) the enclosed descriptive circulars of these dictionaries. May we inquire what dictionary is used in your school? Is a change desired? If so, would you like us to submit samples of the Webster's (130) New Standard? Yours very truly (135).

4. Dear Sir: We are pleased to announce that on June first we took formal possession of the Model Garage located at 467-469 Brown Street, where we (32) are fully equipped to give efficient service to all who favour us with their patronage.

   Our repair shop will occupy the spacious well-lighted second floor of the building. Its equipment will be (65) second to none, and it will be managed by one who has for many years enjoyed an enviable position among the best automobile engineers in this city.

   You are most cordially invited (97) to inspect our plant at your convenience. Respectfully yours (106).

5. A few days will give you an understanding of your employer's wants. It is your business to conform to his ideas as nearly as possible, regardless of whether they coincide with your (32) own opinion of how the work should be done. Do not indulge in any controversies over grammar or spelling, even though you know you are right. After expressing your opinion, if the man (65) stubbornly insists that you are wrong, make the change

as requested. The letter will not bear your signature, and even though the recipient pronounce it a "stenographer's mistake" (which he undoubtedly will) (97) this will not harm you. Your recommendations will come from the firms who have employed you, not from their correspondents. As the days go by, and you begin to feel more at ease (130) in your new work, you will naturally become better acquainted with your fellow employees. Be courteous to all, but do not become too friendly with any. It is a safe rule "not (162) to mix business and social interests" (168).

Accountancy Practice. (Time, 2 hours.)

1. From the following particulars of the business of Gordon and Brown, General Merchants, prepare Departmental Accounts, showing the gross profit on groceries, dry goods, boots and shoes, and Profit and Loss Account for the year:—

	Groceries.	Dry Goods.	Boots and Shoes.
Stock in hand 1st January	$ 3,500	$2,000	$3,000
Stock in hand 31st December	4,500	2,500	2,500
Purchases	7,500	5,000	2,900
Sales	10,620	9,500	4,750
Duty and Charges	1,500	1,000	1,000

The following additional payments and allowances have been made during the year:—

Carriage	$ 250
Wages and Salaries	1,500
Stationery and Stamps	50
Rent	250
Rates and Taxes	90
Discounts allowed to customers	500
Trade Discounts received	750
Advertising	1,876
Exchange on cheques	4

2. On May 23, Henry Williams deposited with his broker $1,200 as margin with instructions to purchase 50 shares of Dominion Metals, Limited, at 96¾. The stock was sold on June 26, at 103½. The broker allowed Williams 7% on deposit and charged him 7% on purchase price and ⅛% brokerage each way. Show Henry Williams' account in the broker's books.

3. Alton and Barrs engaged as equal partners in a stock-raising enterprise with a capital of $10,000, each contributing one-half. Alton received a salary of $200 a month for managing the ranch, and Barrs $100 a month for keeping the books and conducting the business. At the end of three years they decided to terminate the business, and Barrs reported the following receipts and payments:—

Receipts.

Alton's investment	$ 5,000
Barrs' investment	5,000
Sales of cattle	83,687
Loans	15,000

Payments.

Purchase of cattle	$57,000
Loans repaid	14,000
Alton's salary	4,200
Barrs' salary	3,600
Interest	1,000
Expenses, including rent	9,000
Alton's withdrawals	1,800
Barrs' withdrawals	1,200

A round-up and branding of the herd showed the following inventory: 30 head @ $24, 38 head @ $30, 75 head @ $43, 10 head @ $60, 75 head @ $12, 100 head @ $8. There remained with the bankers a balance of $16,887, and other assets were as follows: Horses: $900, tools etc. $200, supplies $250, accounts receivable $1,750, notes receivable $600, accrued interest on notes receivable $25. The firm owed the following bills: Branding irons $67, salt $180, loan $1,000, unpaid wages $980, bills payable $340, accrued interest on bills payable $18.

(*a.*) Prepare such statements as are necessary to show: (1) The financial condition of the copartnership at its termination; (2) the results of the three years' operations.

(*b.*) Write up the partners' accounts.

4. The firm of Ross and Carr, furniture dealers, of which William Ross and Andrew Carr, sharing profits equally, are the sole proprietors, is converted into a joint stock company. The new company takes over the whole assets and liabilities of the old firm as at the 1st of January, 1917. The following is the balance sheet of the old firm:—

ROSS & CARR.

Balance Sheet as at 31st December, 1916.

Assets.		*Liabilities.*	
Customers' Accounts	$ 8,000	Creditors' Accounts	$ 7,000
Goods	14,000	Bills payable	2,000
Warehouse	3,000		$9,000
Bank of Montreal	1,000	Partners' Capital—	
		W. Ross $11,000	
		A. Carr 6,000	
			17,000
	$26,000		$26,000

The new company is to have a capital of $50,000 divided into 500 shares of $100 each. It is proposed to issue at present only $30,000. The amount payable to the vendors is $20,000, of which $5,000 is payable in cash and $15,000 in 150 shares of $100 each, to be held as fully paid. The remainder of the capital issued, $15,000, is fully subscribed and paid.

Give the necessary journal entries to open the books of the new company.

STATUTE LAW. (Time, 2 hours.)

1. Interpret the following terms as used in the Bills of Exchange Act: Acceptance, action, bank, bearer, bill, note, delivery, holder, issue, value, defence, non-business days, endorsement.

2. In writing a cheque on your bank, how would you fill out the line:

Pay to the order of .....

if you wished: (*a*) to draw cash for your own use; (*b*) to pay a note at your own bank; (*c*) to pay the weekly wages of a number of regular employees; (*d*) to pay for a draft on a Seattle Bank; (*e*) to transfer your account from your bank to another bank?

3. Explain the terms: "Acceptance for honour *supra* protest"; "Payment for honour *supra* protest." What liability does a person incur by accepting for honour supra protest, and under what conditions does he incur such liability?

4. How may a bill that is:—
   (*a.*) Negotiable by endorsement be made negotiable without endorsement?
   (*b.*) Negotiable without endorsement be made negotiable by endorsement?
   (*c.*) Negotiable by endorsement be made non-negotiable?

5. "It shall be the duty of the company to make a return to the Secretary of State whenever a written request shall be by him made therefor, containing the following particulars:" Dominion Companies Act, Sec. 106. What "particulars" must be given in such a "return"?

6. In the case of a company incorporated under the Dominion Companies Act: (*a*) How many directors are necessary; (*b*) what qualifications must each director have; (*c*) how and for what length of term are directors elected; (*d*) what are the powers and liabilities of directors?

7. State the various ways in which a company may borrow money. What procedure is necessary in each case? May a company use its funds to purchase stock in another company? If so, on what conditions?

8. What is the meaning of the term "private company" under the British Columbia Companies Act? How may a private company turn itself into a public company?

9. What provisions are made in the British Columbia Companies Act for the incorporation of mining companies with specially limited liability on shares? What are the general powers of such non-personal liability mining companies?

Arithmetic. (Time, 30 minutes.)

A. Rapid Calculation.

[Note.—*The time allowance for Arithmetic, Third-year Course, Commercial, is 2½ hours; after the expiration of 30 minutes, answers to Section A (Rapid Calculation) will be collected, and Section B (General) will then be distributed to candidates.*]

1. During the month of March, 1917, there were 22 school days, and in a class of 36 pupils the aggregate attendance was 768. Find (*a*) the average daily attendance to two decimal places, (*b*) the percentage to two decimal places of the possible attendance.

2. During the year 1916 a firm sold goods at a uniform profit of 25% on cost. On January 1, 1916, their stock amounted to $8,000, and their purchases during the year were $24,000. If their sales during the year were $28,750, find (*a*) the value of goods on hand December 31, 1916, (*b*) the gross profit on merchandise.

3. If a cubic foot of water weighs 62½ lb., and an imperial gallon contains 277.274 cubic inches, what is the weight (in ounces) of a pint of water?

4. A city is assessed at $226,000,000.
   (*a.*) If the tax rate is 18 mills, find the amount of taxes.
   (*b.*) If they wish to raise an additional $100,000, by what decimal of a mill must the tax rate be increased?

5. Square the following numbers and add results: 75, 85, 125, 275, 355, 1005, 10105.

6. Find the value of 144 loads of lumber, each containing 275 pieces, the dimensions of which average 17′ x 3″ x 2½″, at $22.50 per thousand board feet. (Work by cancellation.)

7. (*a.*) Find the simple interest on $48.60 for 292 days at 5%.
   (*b.*) What principal will give $27 simple interest in 2½ years at 6%?
   (*c.*) If $340 yields $5.44 interest in 73 days, what is the rate per cent.?
   (*d.*) In what time will $320 amount to $360 at 5% simple interest?

8. Simplify:—

$$\frac{(25-6)\times(52\div13)}{(3\times13)-37}$$

9. Find the amount of the following:—

7,208 lb. @ 12½c. =
552 „ „ 16⅔c. =
294 „ „ 14²/₇c. =
1,125 „ „ 11¹/₉c. =
915 „ „ 33⅓c. =

Total .....

10. Find the present worth of an annuity of $315 payable at the end of each year for the next three years, if money is worth 5%, compounded yearly.

ARITHMETIC. (Time, 2 hours.)

B. General.

[NOTE.—*The time allowance for Arithmetic, Third-year Course, Commercial, is 2½ hours; after the expiration of 30 minutes, answers to Section A (Rapid Calculation) will be collected, and Section B (General) will then be distributed to candidates.*]

1. Parker invests $50,000 in the more profitable of the two following: 6% stock at 105, 5% stock at 98; brokerage, ⅛%.
   (*a*.) How much must he add to his investment to buy an exact number of shares?
   (*b*.) How much stock does he get?
   (*c*.) What rate per cent. does he make on his investment after paying an income tax of 20 mills, $600 being exempted?

2. A book-keeper is engaged at a salary of $2,500 per annum for four years and is promised an annual increase of $100 each year. His living expenses are $1,000 during the first year and increase 10% each year. If he invests his surplus at the end of each year at 5% per annum compounded yearly, what will he be worth at the end of the four years?

3. Find the cash surrender value of a perpetuity of $750, deferred 15 years, money being worth 6% compounded yearly. ($1.06^{15} = 2.39655819$.)

4. Downs & Morrison fail and make an assignment, assets $82,798.50, liabilities $89,367.10. By consent of all the creditors Henry Brown's claim of $3,500 is made preferential. The assignee's expenses and fees amount to $1,325.70. How much should be paid to a creditor whose admitted claim is $7,500?

5. Find the cost of making a roadway one mile long and 18 feet wide. It is first excavated to a depth of 18 inches at a cost of 12½ cents per cubic yard. Crushed stone is then put in to a depth of 1 foot at a cost of 30 cents per cubic yard; gravel is then placed on top to a depth of 6 inches at a cost of 40 cents per cubic yard.

6. A mortgage of $4,000, due June 30, 1920, is offered for sale June 30, 1917. It carries interest at 6% per annum payable half-yearly, on June 30 and December 31. If the interest due June 30, 1917, has already been paid, and the investor wishes his money to earn 8%, what should he offer for the mortgage?

7. Find (*a*) the cubic contents of the cement walls, and (*b*) the exterior area of the walls, the roof, and the surface under the eaves of a hexagonal silo with pyramidal top, side of hexagon 8 feet, height of walls 40 feet, thickness of walls 1 foot, height of pyramidal roof above the walls 6 feet, extension of eaves over the walls 1 foot.

8. A Vancouver fruit dealer sent his San Francisco agent $1,946.70, and instructed him to buy oranges at $1.40 a box. The agent charged 3% for buying, and shipped the oranges to his principal in five lots. How many boxes were in each lot, if each contained an equal number of boxes?

9. Anderson and Brown form a partnership, investing respectively $9,700 and $8,300. They agree to share gains and losses according to average net investment, and to allow interest on all investments and charge interest on all withdrawals at the rate of 6% per annum. At the end of 4 months Anderson invests $4,000 more and Brown $1,000. At the end of the year no settlement of interest is made until after the net gain of $6,400 has been divided and entered up. The interest is then adjusted. Show the partners' accounts after such adjustment, properly closed, with the balances brought down for next year's business. (Calculate time in months.)

10. A city made an appropriation of $265,200 for its schools. The assessed value of real estate was $88,400,000. Find the tax rate for school purposes. How much was a taxpayer's school tax if he was assessed $12,500?

BUSINESS CORRESPONDENCE. (Time, 2 hours.)

[NOTE TO PRESIDING EXAMINER.—*Please provide candidates with plain white letter paper.*]

1. Explain the following commercial and legal abbreviations: L.S., i.e., fig., Ltd., viz., vs., prox., N.B., MS., MSS., do., Inc., P.S., Mfg., f.o.b., et al., Co., c/o, E. & O. E., C. O. D., pro tem., Mlle., Mme., e.g., hhd., via, cwt.

2. Make an application by letter for *one* of the following positions:—

WANTED—Young man or woman to take charge of the amanuensis work in a commercial office. Address, stating age, education, experience and salary, AMANUENSIS, TRIBUNE OFFICE.

Local Wholesale Lumber Company desires to secure the services of a young man or woman as assistant book-keeper. High School graduate who can do typewriting preferred. Apply in own handwriting, stating age, qualifications, experience, and initial salary. Box 234, Mail Office.

3. You are employed by Messrs. J. L. McDonald & Co., Vancouver, as a travelling salesman. Your relations with the firm have always been pleasant, but you are offered a greatly increased salary by the Rat Portage Lumber Co., Limited.

(*a.*) Write to the former company, resigning your position. Thank them for many past favours, and give your reasons for resigning.

(*b.*) Write to the latter company, accepting their offer.

4. A retailer sends an order on June 24 and claims $1.20 for breakage of mantle globes to apply on his bill of June 3. He suggests that you file a claim with the railroad. Notify him that the order has been shipped under invoice No. 67876, grant the claim, enclose a credit memorandum, and say the amount is too small to warrant claim proceedings.

5. As a member of the credit department of a wholesale house, you have received a first order from an unknown customer and have written him for references, asking in the meantime for a payment of $100 to allow the order to go forward. The customer replies that he has formerly traded with the Calgary branch of the house, and encloses the $100. Acknowledge the remittance, give notice of shipping the order, and say you will confer with the Calgary branch.

6. Prepare for the local newspapers a letter containing about 500 words, on *one* of the following subjects:—
   (*a.*) The causes for the high cost of living.
   (*b.*) The future of British Columbia.
   (*c.*) The railroad situation in Canada.
   (*d.*) Modern business office methods and equipment.

ECONOMICS AND CIVICS. (Time, 2 hours.)

1. (*a.*) Why is the federal system of government suitable for Canada?
   (*b.*) What is meant by the "Constitution"? What is a *precedent?*
   (*c.*) How can the Dominion control the legislation of the Provinces? How can Great Britain control Dominion legislation?

2. (*a.*) Distinguish clearly *direct* and *indirect* taxation.
   (*b.*) Explain how our Dominion obtains its revenue; how our Provinces; and how a city of British Columbia.
   (*c.*) On what classes of goods would a country levy (i) an import duty; (ii) an export duty; (iii) an excise duty?
   (*d.*) Give the principles of Free Trade and of Protective Tariff. How do you think they should be applied in reference to Canada?

3. "The powers of government are divided into what are known as the *legislative, executive,* and *judicial* departments." Explain the function of each of these. How are these powers provided for in Canada?

4. Mention some important questions that have arisen from time to time in Canada.

5. "British Columbia has unparalleled advantages in trade and commerce, and its resources are equal to those of many a great empire." State what these advantages and resources are, and estimate their importance.

6. (*a.*) What are the chief causes of unemployment? How do these causes operate?
   (*b.*) Suggest remedies for reducing unemployment.

7. What do you consider are the relative merits and demerits of *granted monopoly* and *municipal ownership* as applied to the street-car system of a city?

8. If the value of a man's work is $17.50 per week when he works 8 hours per day, what will be the value of his work when he works 14 hours per day? Explain your conclusions.

9. Name some of the chief factors in *cost reduction* and explain how they are made to operate.

10. Enumerate as fully as you can the causes which may help to determine (*a*) the wages paid for a certain class of labour, (*b*) the price of potatoes in Vancouver.

Typewriting.

[Note to Presiding Examiner.—*Please provide each candidate with plain white letter paper and one sheet of carbon paper.*]

[Note.—*Candidates are allowed 5 minutes to read over this paper. Time allowed for Section A, 10 minutes. Section B is to be written in full and the time taken by each candidate to be recorded by the Presiding Examiner. Write each part of Section B on a separate sheet of paper, and hand in carbon copies with originals. A carbon copy of Section A is not required.*]

Section A.

It is not accident that helps a man in the world, but purpose and persistent industry. These make a man sharp to discern opportunities, and turn them to account. To the feeble, the sluggish, and purposeless, the happiest opportunities avail nothing—they pass them by, seeing no meaning in them. But if we are prompt to seize and improve even the shortest intervals of possible action and effort, it is astonishing how much can be accomplished. Watt taught himself chemistry and mechanics while working at his trade of a mathematical instrument-maker; and he availed himself of every opportunity to extend his knowledge of languages, literature, and the principles of science. Stephenson taught himself arithmetic and mensuration while working as an engineman during the night shifts, and he studied mechanics during his spare hours at home, thus preparing himself for his great work—the invention of the passenger locomotive. Dalton's industry was the habit of his life. He began from his boyhood, for he taught a little village-school when he was only about twelve years old; keeping the school in winter, and working upon his father's farm in summer. He would sometimes urge himself and companions to study by the stimulus of a bet, though bred a Quaker; and on one occasion, by his satisfactory solution of a problem, he in this way won as much as enabled him to buy a winter's store of candles. He went on indefatigably, making his meteorological observations until a day or two before he died—having made and recorded upwards of 200,000 in the course of his life.

With perseverance, the very odds and ends of time may be worked up into results of the greatest value. An hour in every day withdrawn from frivolous pursuits would, if profitably employed, enable a person of ordinary capacity to go far towards mastering a complete science. It would make an ignorant man a well-informed man in ten years. We must not allow the time to pass without yielding fruits, in the form of something learnt worthy of being known, some good principle cultivated, or some good habit strengthened. Dr. Mason Good translated Lucretius while riding in his carriage in the streets of London, going his rounds among his patients. Dr. Darwin composed nearly all his works in the same way while driving about in his "sulky" from house to house in the country—writing down his thoughts on little scraps of paper, which he carried about with him for the purpose. Hale wrote his *Contemplations* while travelling on circuit. Dr. Burney learnt French and Italian while travelling on horseback from one musical pupil to another in the course of his profession. Kirke White learnt Greek while walking to and from a lawyer's office; and we personally know a man of eminent position in a northern manufacturing town, who learnt Latin and French while going messages as an errand boy in the streets of Manchester.

Elihu Burritt attributed his first success in self-improvement, not to Genius, which he disclaimed, but simply to the careful employment of those invaluable fragments of time, called "odd moments." While working and earning his living as a blacksmith, he mastered some eighteen ancient and modern languages, and twenty-two European dialects. Withal, he was exceedingly modest, and thought his achievements nothing extraordinary. Like another learned and wise man, of whom it was said that he could be silent in ten languages, Elihu Burritt could do the same in forty. "Those who have been acquainted with my character from my youth up," said he, writing to a friend, "will give me credit for sincerity when I say, that it never entered into my head to brazen forth any acquisition of my own. All that I have accomplished, or expect, or hope to accomplish, has been and will be by that plodding, patient, persevering process of accretion which builds the ant-heap—particle by particle, thought by thought, fact by fact. And if ever I was actuated by ambition, its highest and warmest aspiration reached no further than the hope to set before the young men of my country an example in employing those invaluable fragments of time called 'odd moments.'" (703 words.)

Section B.

1. Victoria, B.C., June 28, 1917. Mr. J. M. Morse, 238 Princeton Ave., Vancouver, B.C. Dear Sir: In connection with our correspondence in which we have explained our method and terms for handling savings accounts by mail, we think you will be interested in reading the enclosed booklet. It tells how, by handling only what are termed by banks "inactive" accounts, our institution is able to give you a better rate of profit than we could do if we were transacting a general banking business. ¶ While most banks pay 3% and then only credit the depositor for interest on his lowest monthly balances, our company throughout its nineteen years' experience has never paid less than 5%, and we credit earnings for the full number of days on each deposit. ¶ Your business can be transacted by mail very conveniently, as we are satisfactorily meeting the requirements of our patrons in all parts of the country. When you also consider that the money you invest is not "tied up" but may be withdrawn upon thirty days' notice, if not over $5,000, we are confident that you will find it to your advantage to place at least a portion of your business with us. In your dealings you will be protected by one of the largest and strongest of savings institutions, our company's assets now amounting to over $14,000,000. Our nineteen years' record is always open to public inspection in the files of the Inspector of Trust and Loan Companies. ¶ We enclose a remittance blank and hope to hear from you by early mail. Yours respectfully.

2. Gentlemen: In compliance with the request contained in your letter of the 22nd, we are mailing under another cover our special pamphlet No. 18, and refer you to page 8, figure 456, for our peanut fryer. The outside jacket is made of seamless steel with steel-bound screen, or basket, all heavily tinned and arranged so that the grease will drain into the vat. This fryer has a capacity of 25 lb. We can furnish it for the sum of $10, less 10% discount. ¶ We could also furnish an extra large fryer, having a capacity of 50 lb., for the sum of $15 net. Yours very truly.

3. Nelson, B.C., May 31, 1917. Mr. J. H. Stone, 647 Winston St., City. Dear Sir: We are enclosing a sample Liability Policy to cover your Peerless Car. If it is a 1917 runabout or touring car, 20 horse-power, the premium will be $47; if of 30 horse-power, $63.75. An extra premium of 15% will be charged if a second name is added to the policy. Respectfully yours.

4. Copy the following statement (no vertical ruling required) :—

Date.		Deposits.		With-drawals.	Balances.		Dys.	Products.
1916.								
Jan.	10	7			75		24	1,800
Feb.	3	30			105		13	1,365
„	16			20	85		24	2,040
Mar.	12	5			135		8	1,080
„	20	15			50		46	6,900
May	5	80			230		33	7,590
June	7			30	200		6	1,200
„	13	75			275		17	4,675
								26,650
„	30	*Cr. Int.* 2	19		277	19	12	3,324
July	12	28			305	19	70	21,350
Sept.	20			20	285	19	21	5,985
Oct.	11			30	255	19	35	8,925
Nov.	15	46			301	19	35	10,535
Dec.	20			75	226	19	11	2,486
								52,605
„	31	*Cr. Int.* 4	32		230	51		

Laws of Business. (Time, 2 hours.)

1. State briefly the effect of the Statute of Limitations on debts of various kinds.

2. What is an assignment? What provision is made for making an assignment known to all concerned? How should a creditor file his claim against one who has made an assignment? Give in order of priority the claims of the creditors against the assets of an insolvent debtor.

3. Explain fully the purpose and nature of a mortgage. When does a mortgage become binding? Why should a mortgage be registered? What is the object of foreclosure of a mortgage? How is it effected? How may a mortgage be transferred?

4. What is a conditional sale? Write the promissory note form used in the agreement. How are the interests of the unpaid seller and of innocent third parties protected?

5. What is a lease? What is the landlord's covenant? What are some of the tenant's covenants? What are some of the tenant's privileges? Discuss the responsibility of the landlord and the tenant in respect to repairs and taxes. What is meant by tenancy by implication?

6. What is meant by saying that the legal rate of interest in Canada is now 5%? If a note is made to bear interest at 10% per annum, can the interest be collected? Explain your answer. If such a note is not paid until six months after maturity, what interest can be collected? What is the legal position of endorsers on overdue notes? Under what conditions and at what rate can interest be collected on book accounts?

7. What is an *Agreement for Sale?* Who should sign it? Give a synopsis of what it contains.

8. What is the Mechanics and Wage-earners' Lien Act? When and how must a lien claim be recorded? How is a lien enforced? What is the advantage of a lien? When does a lien cease to exist?

9. Explain the meaning of: Subpoena, summons, warrant, proxy, debenture, collateral, fee-simple, probate, legal remedy, garnishment.

ACCOUNTANCY THEORY. (Time, 2 hours.)

1. State briefly the chief points of difference between the book-keeping of a Joint Stock Company and that of a Partnership.

2. A company leases for a term of 50 years certain unimproved property for factory purposes, paying a ground rent therefor of $1,500 a year. The company erects certain buildings at a cost of $50,000, which are to pass to the owner of the real estate at the termination of the lease. Without going into the mathematics of the matter, state how you would treat this proposition in the books of account.

3. What course would you pursue in order to open a current account at a bank? Show how you would make your first deposit, consisting of silver coin $6.95, bank bills $235, a bank cheque for $167.84. Show deposit slip properly filled out. What evidence of this deposit would you receive?

4. In closing the books of a Company whose accounts are made up to the 30th of June in each year, you find the following:—

   (*a.*) Rent $4,800 per year. payable quarterly. Last rent paid up to the 30th of April.

   (*b.*) Insurance costs $1,440 per year and is paid in advance on the 30th of September each year.

   (*c.*) An invoice of merchandise amounting to $800, delivered on the 28th of June. The merchandise is included in the inventory, but the invoice has not passed through the books.

   (*d.*) An expenditure of $4,500 in advertising a new line of goods, which are not to be placed on the market until after July 15th.

   How would you deal with the above-mentioned items in the annual statements?

5. The Vancouver Shipbuilding Company, Limited, was incorporated in 1913. The Authorized Capital of the Company consisted of 960,000 6% preference shares of $1 each and 960,000 ordinary shares of $1 each. During the years 1913 and 1914 the whole of the preference shares and 480,000 of the ordinary shares were issued to the public and fully paid up with the exception of $480 calls in arrear on the ordinary shares. The arrears were withheld from dividends paid in 1915. The Company was very successful and during the year 1916 offered the balance of the ordinary shares to the public at a premium of 50 cents per share. All the stock was taken up and duly allotted, payable as follows: The premium of 50 cents per share and 75% of the face value on application and 25% of the face value one month after allotment. The call of 25% was not made.

   Journalize the above, and set out the Capital Stock of the Company as it would appear in the Company's Balance Sheet, December 31, 1916.

6. Rockwell, Brice & Co., of Victoria, B.C., consign goods to Loudon & Martin, Hong Kong, rendering with each shipment a *pro forma* invoice in which the goods are charged at prices in excess of the cost, the cost of freight, insurance, etc., being added. Account sales are received from time to time, the net proceeds being remitted by demand drafts on the Canadian Bank of Commerce.

Show how the following transactions would appear in Rockwell, Brice & Co.'s ledger:—

(*a.*) Shipment of goods, November 8, 1916, and invoice rendered to Loudon & Martin, for $9,850, as follows:—

Merchandise	$9,000
Freight	700
Insurance	150
Total	$9,850

The cost of these goods was $8,700.

(*b.*) Account sales received April 18, 1917, for part of the consignment, showed gross proceeds $5,400, less dock and other expenses, including commission, $150. This account was accompanied by a draft for $5,250.

(*c.*) Account sales received June 14, 1917, for balance of the consignment, showed gross proceeds $5,660, less dock and other expenses, including commission, $175, and was accompanied by a draft for $5,485.

7. Explain clearly the following commercial terms: Credit note, debit note, deed of assignment, convertible securities, liquidation, antedate, bonus, watered stock, royalty, rolling stock, salvage.

PENMANSHIP. (Time, 1 hour.)

1. Write once:—

Wherever there is difficulty, the individual man must come out for better or for worse. Encounter with it will train his strength and discipline his skill; heartening him for future effort, as the racer, by being trained to run against the hill, at length courses with facility. The road to success may be steep to climb, but it puts to the proof the energies of him who would reach the summit. By experience a man soon learns how obstacles are to be overcome by grappling with them—how soft as silk the nettle becomes when it is boldly grasped—and how powerful a principle of realizing the object proposed, is the moral conviction that we can find and will accomplish it. Thus difficulties often fall away of themselves, before the determination to overcome them. In nine cases out of ten, if marched boldly up to they will flee away. Like thieves, they often disappear at a glance. What looked like insuperable obstacles, like some great mountain chain in our way, frowning danger and trial, are found to become practicable when approached, and paths formerly unseen, though they may be narrow, rugged, and difficult, open a way for us through the hills.

2. Write the alphabet in capital letters.

3. Copy the following business letter:—

VANCOUVER, B.C., June 28, 1917.

Mrs. S. T. Frederick,
1235 N. Charter Ave.,
Vancouver, B.C.

DEAR MADAM: Nearly everybody has had trouble with floors. Without doubt, you have had your share and are on the look-out for something that will relieve you of further worry; something which has been proved to possess real merit.

Try "Elastica" floor finish. Others have found it to be just what they were looking for. It gives a handsome finish, tough and durable.

"Elastica" is on sale at this store, and any orders will be given prompt attention.

Yours very truly.

4. Make a copy of the following columnar balance sheet:—

	Debits.	Credits.	Resources.	Liabilities.	Losses.	Gains.
Cash	$ 8,318.55	$ 3,991.84	$ 4,326.71			
Real estate	5,000.00	500.00	4,500.00			
Merchandise	6,311.03	3,724.25	3,231.67			$644.89
Z. Bowes	2,030.00	1,505.00	525.00			
Y. Crowe	1,608.00	1,214.25	393.75			
J. Dent	450.00	300.00	150.00			
I. Earle	1,333.37	1,500.00		$ 166.63		
K. Munn	750.00	1,675.25		925.25		
Proprietor	600.00	7,772.13				
N. Owen	975.50	5,069.38		4,093.88		
Exchange	5.10				$ 5.10	
B. Payable	832.30	1,132.30		300.00		
G. White	513.84	1,230.00		716.16		
Expense	610.00		485.00		125.00	
Discount	11.11	3.15			7.96	
H. Adams	268.75		268.75			
	$29,617.55	$29,617.55	$13,880.88	$6,201.92	$138.06	$644.89
Resources	$13,880.88	Total Gain	$644.89	Net Credit		$7,172.13
Liabilities	6,201.92	„ Loss	138.06	„ Gain		506.83
P. Worth	$ 7,678.96	Net Gain	$506.83	P. Worth		$7,678.96

ENGLISH LITERATURE. (Time, 2 hours.)

POEMS OF THE ROMANTIC REVIVAL.

1. Give the title of the poem from which each of the following quotations is taken:—

(*a.*) "The sounding cataract
Haunted me like a passion."

(*b.*) "The prison unto which we doom
Ourselves no prison is."

(*c.*) "The world's great age begins anew
The golden years return."

(*d.*) "O world, as God has made it! All is beauty:
And knowing this is love, and love is duty."

(*e.*) "To strive, to seek, to find, and not to yield."

2. Make notes upon the following, referring where necessary to the context:—

(*a.*) "The winged glory
On Philippi half alighted
Like an eagle on a promontory."

(*b.*) "For all the past of time reveals
A bridal dawn of thunder-peals
Wherever Thought has wedded Fact."

(*c.*) "Thou best Philosopher, who yet dost keep
Thy heritage, thou eye among the blind."

(*d.*) "Ah, but a man's reach should exceed his grasp,
Or what's a heaven for?"

3. What, briefly, is the main idea of:—

(*a.*) The Epilogue to the Two Poets of Croisic?

(*b.*) Three Years She Grew in Sun and Shower?

4. Write at least a page on two characteristics of Shelley's poetry.

THE MERCHANT OF VENICE.

5. Assign the following quotations to speaker and context:—

(*a.*) "The man that hath no music in himself."

(*b.*) "Thou art too wild, too rude, and bold of voice."

(*c.*) "So is Alcides beaten by his page."

(*d.*) "If a throstle sing, he falls straight a-capering; he will fence with his own shadow."

(*e.*) "I never knew so young a body with so old a head."

6. Explain, where necessary, the meaning of *words* in the following passages:—

(*a.*)
"See to my horse left in the fearful guard
Of an unthrifty knave, and presently
I will be with you."

(*b.*) "There are some shrewd contents in yon same paper."

(*c.*) "Engaged my friend to his mere enemy."

(*d.*) "Upon more advice."

(*e.*) "A noble and a true conceit."

(*f.*)
"I do wonder,
Thou naughty gailer, that thou art so fond
To come abroad."

7. Write about a page on each of the following:—

(*a.*) Launcelot Gobbo.

(*b.*) How Shakespeare has, to some extent at least, ennobled the character of Shylock.

Intermediate Grade.

BRITISH HISTORY. (Time, 1½ hours.)

[NOTE.—*Any* five *questions constitute a full paper.*]

1. Discuss the effect of the Norman Conquest of England under the following heads:—
   (*a.*) Land tenure.
   (*b.*) Language and learning.
   (*c.*) Trade.
2. Give an account of the Reformation in England from the time of Henry VIII. to the Commonwealth.
3. Name and discuss four great landmarks in the Development of British Constitutional Government.
4. William of Orange forced Britain from that position of isolation from interference in Continental affairs which she had occupied from the reign of the Tudors. Explain the necessity of this change of policy and the direct results that came from it.
5. Discuss the causes that led to the revolt of the American Colonies.
6. Write a short essay on the Industrial Development of England in the first quarter of the 19th Century.
7. Write notes on: The Domesday Book, Guilds, The Test Act, Catholic Emancipation Bill, The Toleration Act.
8. Make notes on: Thomas à Beckett, Thomas Cromwell, Laud, Milton, Wilberforce, Sir Robert Peel, Mr. Asquith, Parnell.

GRECIAN HISTORY. (Time, 2 hours.)

[NOTE.—*Any* five *questions constitute a full paper.*]

1. Describe the organization of the Greek Colonial system, and write on two of the colonizing expeditions.
2. Describe the Constitution of Cleisthenes, pointing out important differences between it and that of Solon.
3. Write an account of the Persian invasion of Greece under Xerxes.
4. Give an account of the Periclean Democracy, pointing out its weaknesses.
5. Describe the expedition of Alexander the Great against Persia from the beginning up to the battle of Arbela.
6. Make short notes on: Miltiades, Alcibiades, Themistocles, Demosthenes, Dionysius.
7. Give an account of the Greek National games so as to show their aims and results.

Composition. (Time, 2 hours.)

Write an essay on *one* of the following subjects:—

(*a.*) Milton as the Champion of Liberty.

(*b.*) An Imaginary Walk with Sir Roger de Coverley in my Neighbourhood.

(*c.*) Should Canada introduce Compulsory Military Service?

English Literature. (Time, 3 hours.)

1. Write a page or so on Macaulay's admiration of Milton; *or* on Milton, the champion of Liberty.

2. In what ways do you find the prose of Addison and Macaulay helpful in endeavouring to form your prose style?

3. (*a.*) Examine "Il Penseroso" in order to display the spirit in which Milton writes about night.
(*b.*) How does Dryden in "The Hymn to St. Cecelia's Day" impress upon the reader the power of music?

4. In what ways is the "Eve of St. Agnes" characteristic of Keats?

5. Quote three of the following:—
(*a.*) A stanza from "The Hymn on the Nativity."
(*b.*) A passage of about six lines from "Lycidas."
(*c.*) "Nor Second he that rode sublime" (twelve lines).
(*d.*) "But let my due feet never fail" (twelve lines).
(*e.*) A stanza from "The Eve of St. Agnes."

6. Show the full bearing or meaning of the following by suitable reference to the context:—
(*a.*) "Full many a gem of purest ray serene
The dark unfathomed caves of ocean bear";
(*b.*) "Visions of glory, spare my aching sight," (Gray's "Bard");
(*c.*) "St. Agnes' charmed maid
Rose like a missioned spirit unaware";
(*d.*) "With a view to the same great object, he [Milton] attacked the licensing system, in that sublime treatise which every statesman should wear as a sign upon his hand and as frontlets between his eyes."

7. Write suitable explanatory notes on the following:—
(*a.*) Hebe.
(*b.*) Cynthia.
(*c.*) "Peor and Baälim
Forsake their temples dim,
With that twice battened god of Palestine."
(*d.*) "Heywood and Shirley were but types of thee,
Thou last great prophet of tautology."

CHEMISTRY. (Time, 2 hours.)

1. Name the oxides of Carbon. How would you prepare, collect, and identify the lower oxide?

2. What are the principal products of:—

   (*a.*) The destructive distillation of wood?

   (*b.*) The combustion of wood in air?

   Account for the difference.

3. Write equations representing the reactions when dilute sulphuric acid is added to:—

   (*a.*) Zinc.

   (*b.*) Marble.

   (*c.*) Common salt.

   In (*c*) explain why two different results may be got.

4. Name the Halogens and the Oxides of Nitrogen, writing opposite each its chemical formula.

5. Outline the principal steps in the making of *one* of the following: Hydrochloric Acid, Sodium Carbonate, Bleaching Powder.

6. What is "hard water"? Name the different kinds of hardness, and say how caused, distinguished, and removed in each case.

7. Write the formulæ of Methane, Ethelene, and Acetylene, and describe the preparation and properties of *one* of them.

8. Write brief notes on the occurrence, metallurgy, and properties of copper, *or* of lead.

GEOGRAPHY. (Time, 1½ hours.)

1. Trace for the continent of America, the isothermals (*a*) of 60° for July, and (*b* of 40° for January. (Both of these approximately pass through Victoria, B.C.)

2. (*a.*) "The housewife knows that some days are better drying days than others." Explain briefly the causes upon which this fact depends.

   (*b.*) "The air receives its warmth in an indirect way." Discuss this statement.

3. Explain fully:—

   Land and Sea Breezes.
   Trade-winds.
   Chinooks.
   Hurricanes.

4. Discuss the chief causes which lead to a variation of plant and animal life on land.

GEOMETRY. (Time, 2 hours.)

1. If from a point without a circle a tangent and a secant be drawn, then the rectangle contained by the whole secant and the part of it without the circle shall be equal to the square on the tangent.

2. A and B are two fixed points on the circumference of a circle and PQ is any diameter. Find the locus of the intersection of PA and QB.

3. (*a.*) The opposite angles of any quadrilateral inscribed in a circle are together equal to two right angles.

   (*b.*) State and prove the converse.

4. Two tangents AP and AQ are drawn to a circle and B is the middle point of the arc PQ convex to A. Show that PB bisects the angle APQ.

5. Given the feet of the perpendiculars drawn from the vertices on the opposite sides, construct the triangle.

6. (*a.*) $(a+b)^2 = a^2+2ab+b^2$.

   (*b.*) $(a-b)^2 = a^2-2ab+b^2$.

   (*c.*) $(a+b)(a-b) = a^2-b^2$.

   Give the enunciations of the propositions corresponding to these algebraical formulas and demonstrate the second.

7. If a straight line be divided in medial section and from the greater segment a part be taken equal to the less, show that the greater segment is also divided in medial section.

ALGEBRA. (Time, 2 hours.)

1. Find the value of $\dfrac{x^3-y^3}{x^3+y^3}$ when $x=a+3$ and $y=a-3$.

2. Express in the simplest form :—

   (*a.*) $\left\{(16)^{-\frac{3}{4}}-(81)^{-\frac{3}{4}}\right\} \div \left\{(16)^{-\frac{1}{4}}+(81)^{-\frac{1}{4}}\right\}$.

   (*b.*) $8^{\frac{4}{3}}+\sqrt[3]{2\times 4^{-5}}-\dfrac{\sqrt[7]{2}}{(4)^{-\frac{3}{7}}}-(32)^{-\frac{3}{5}}$.

3. Solve $\left\{\begin{matrix} 8xy-13y^2=3 \\ 13x^2-21xy=10 \end{matrix}\right\}$.

4. Factor :—

   (*a.*) $36x^4-97x^2+36$.

   (*b.*) $112x^2+138xy-135y^2$.

5. Solve $3\sqrt{x^2+xy+x+y}=3x+y+2=4$.

6. Simplify $\left(1+\dfrac{35}{x-7}-\dfrac{15}{x-3}\right)\left(\dfrac{1}{5}-\dfrac{7}{x+7}+\dfrac{3}{x+3}\right)$.

7. Find the square root of $57+12\sqrt{15}$.

8. The number of sergeants in a company is twice the number of officers and is equal to the number of companies in a battalion; there is an officer or a sergeant to every 10 men, and the whole battalion (including 6 on the staff) numbers 600. How many companies are there?

GREEK. (Time, 3 hours.)

1. Give the comparative and superlative degrees of καλός, μέγας, μικρός, ὀλίγος, πολύς, ῥᾳδιος.

2. Write the accusative singular and dative plural of πόλις, ἀνήρ, ἀσπίς, βασιλεύς, ναῦς, and the dative singular and accusative plural of ἀληθής (masc.), ἡδίων (masc.), μέγας (in the neuter), ὅστις (masc.), οὗτος (in the feminine).

3. Write the first aorist indicative middle of φαίνω, second aorist subjunctive active of λείπω, pluperfect indicative passive of ἄγω, perfect indicative passive of πείθω, second aorist optative passive of στέλλω, a synopsis of the present system of δίδωμι in the active, a synopsis of the second aorist system of τίθημι in the middle, and a synopsis of the second perfect system of οἶδα in the active.

4. Write the principal parts of βάλλω, κρίνω, ἀποθνήσκω, πάσχω, τιτρώσκω, λανθάνω, ἁλίσκομαι, πλέω, βαίνω, ἵημι.

5. Translate into Greek :—

   (*a.*) The satrap said that Cyrus had plotted against the king.

   (*b.*) We should be worth more, if we should have our arms.

   (*c.*) Most gladly would I hear the herald's name.

   (*d.*) He proceeded thence three stages, fifteen parasangs to the river Euphrates, which is four stades in width.

   (*e.*) He promised them not to stop until he brought them back home.

   (*f.*) He went off unnoticed by Cyrus.

   (*g.*) After him another rose up pointing out what must be done.

   (*h.*) They feared that the Greeks would attack them during the night.

6. Translate into English :—

   (*a.*) ἐὰν δὲ ὑμεῖς ἄνδρες ἦτε καὶ εὖ τὰ ἐμὰ γένηται, ἐγὼ ὑμῶν τὸν μὲν οἴκαδε βουλόμενον ἀπελθεῖν ζηλωτὸν ποιήσω τοῖς οἴκοι, πολλοὺς δὲ οἶμαι βουλήσεσθαι παρ' ἐμοὶ μένειν.

   What kind of a conditional sentence is this? Explain the genitive ὑμῶν. What other cases does παρά take?

   (*b.*) ταῦτα δὲ τῷ Ξενοφῶντι λέγων θορύβου ἤκουσε, καὶ ἤρετο τίς ὁ θόρυβος εἴη. ὁ δὲ Κλέαρχος εἶπεν ὅτι σύνθημα παρέρχεται δεύτερον ἤδη διὰ τῶν τάξεων. καὶ ἐθαύμασε Κῦρος τίς παραγγέλλει, καὶ ἤρετο ὅ τι εἴη τὸ σύνθημα. ὁ δὲ ἀπεκρίνατο, "Ζεὺς Σωτὴρ καὶ Νίκη." ὁ δὲ Κῦρος ἀκούσας, "Ἀλλὰ δέχομαί τε," ἔφη, "καὶ τοῦτο ἔστω." ταῦτα δ' εἰπὼν εἰς τὴν αὑτοῦ χώραν ἀπήλαυνεν.

   Explain the construction of θορύβου, εἴη. Parse ἔστω, αὑτοῦ.

Latin. (Time, 3 hours.)

A. (*a.*) Translate:—

Qua consuetudine cognita Caesar, ne graviori bello occurreret, maturius, quam consuerat, ad exercitum profiscitur. *Eo* cum venisset, *ea, quae* fore suspicatus erat, facta cognovit: missas legationes a nonnullis civitatibus ad Germanos invitatosque eos, uti ab Rheno discederent, omniaque, quae postulassent, ab se fore parata.

1. What part of speech is *eo?* Explain case of *ea* and *quae.*
2. Rewrite "*omniaque, quae postulassent ab se fore parata*" in Oratio Recta.
3. Give the principal parts of *suspicatus erat, consuerat, cognovit.*

(*b.*) Translate:—

Dum in his locis Caesar navium parandarum causā *moratur,* ex magna parte Morinorum ad eum legati venerunt, qui se de superioris *temporis* consilio excusarent, quod homines barbari et nostrae *consuetudinis* imperiti bellum populo Romano fecissent, seque ea, quae imperasset, facturos *pollicerentur.*

1. *navium parandarum causa.* Write the equivalent by using *ad* with gerundive.
2. Explain tense of *moratur,* mood of *pollicerentur,* case of *temporis* and *consuetudinis.*
3. Principal parts of *pollicerentur* and *venerunt.*

(*c.*) Translate:—

Nostri acriter in eos impetu facto repulerunt neque finem sequendi fecerunt, quoad *subsidio* confisi equites, cum post se legiones viderent, praecipites hostes egerunt, magnoque eorum numero interfecto neque *sui colligendi* neque consistendi aut ex essedis desiliendi facultatem dederunt. Ex hac fuga protinus, *quae* undique convenerant auxilia discesserunt, neque post id tempus unquam summis nobiscum copiis hostes contenderunt.

1. Is *subsidio* dative or ablative? Give principal parts of *confisi* and *viderent.*
2. Explain syntax of *sui colligendi.* What is the antecedent of *quae?*

B. Translate into Latin:—

1. They earnestly prayed him to bring aid to them because they were attacked by their enemies.
2. They did not know whether they should defend the camp or seek safety by flight.
3. Do not move your camp nearer our lines.
4. After proceeding a journey of many days, they were informed that you had crossed the river.
5. So many of the Germans were killed that the rest threw down their arms and surrendered.

C. (*a.*) Translate:—

Constitit hic, arcumque manu celerisque sagittas
Corripuit, fidus quae tela gerebat Achates,
Ductoresque ipsos primum, capita alta ferentis
Cornibus arboreis, sternit, tum volgus, et omnem
Miscet agens telis nemora inter frondea turbam;
Nec prius absistit, quam septem ingentia victor
Corpora fundat humi et numerum cum navibus aequet.

1. Account for the case of *humi;* the mood of *fundat.*
2. Scan the last two lines.

(*b.*) Translate:—

Sis felix, nostrumque leves, quaecumque, laborem,
Et, quo sub caelo tandem, quibus orbis in oris
Iactemur, doceas: ignari hominumque locorumque
Erramus, vento huc et vastis fluctibus acti:
Multa tibi ante aras nostra cadet hostia dextra.

1. Account for the case of *quaecumque, hominum, tibi;* the mood of *sis, iactemur.*

(*c.*) Translate:—

Non nos aut ferro Libycos populare Penatis
Venimus, aut raptas ad litora vertere praedas;
Non ea vis animo, nec tanta superbia victis.
Est locus, Hesperiam Graii cognomine dicunt,
Terra antiqua, potens armis atque ubere glaebae;
Oenotri coluere viri; nunc fama, minores
Italiam dixisse ducis de nomine gentem.

1. Account for the case of *fama, minores;* the mood of *vertere.*

(*d.*) Translate:—

Munera praeterea, Iliacis erepta ruinis,
Ferre iubet, pallam signis auroque rigentem,
Et circumtextum croceo velamen acantho,
Ornatus Argivae Helenae, quos illa Mycenis,
Pergama cum peteret inconcessosque Hymenaeos,
Extulerat, matris Ledae mirabile donum:
Praeterea sceptrum, Ilione quod gesserat olim,
Maxuma natarum Priami, colloque monile
Bacatum, et duplicem gemmis auroque coronam.

1. Write notes on *Argivae, Mycenis, Pergama, Priami.*

FRENCH. (Time, 3 hours.)

1. Rewrite the following, turning the verbs into the past indefinite:—

(1.) Quand sortez-vous, mes amis? (2.) Quels livres achetez-vous? (3.) Ils se couchent toujours de bonne heure. (4.) Quelquefois il arrive des accidents. (5.) Quelle est la dame que j'entends chanter? (6.) Voilà de belles poires; en achetez-vous? (7.) Nous nous lavons les mains. (8.) Les morceaux que nous entendous jouer sont ravissants. (9.) Il nous prie d'aller à la ville. (10.) La belle journée qu'il fait!

2. Change each infinitive into the appropriate mood and tense:—

(1.) Si je ne l'avais pas saisi, il (tomber) du train. (2.) Combien de temps y a-t-il que vous (attendre) son arrivée? (3.) Je regrette que vous ne (pouvoir) venir. (4.) Il me le (dire) que je ne le croirais pas. (5.) Je ne pense pas qu'il (venir). (6.) Où (aller)-vous quand je suis entré. (7.) Où que vous (être) je penserez à vous. (8.) Quand vous (venir) je vous presenterai à eux. (9.) Pouvez-vous me montrer une grammaire qui (avoir) toutes les règles? (10.) Après qu'il (dîner) il partit.

3. Translate the following, paying particular attention to the prepositions:—

(1.) He didn't obey his father. (2.) What do you think of this book? (3.) Ask your friend for some money. (4.) I have borrowed some from him already. (5.) Think of your friends. (6.) Can your sister play the piano? (7.) No, but she can play cards. (8.) Pardon me for this fault. (9.) Pay the tailor for your cloth. (10.) It is very cold; draw near the fire.

4. Translate:—

(1.) When you have finished and have time, come, that I may see you. (2.) People invent new processes in proportion as civilization advances. (3.) After looking at the two books I asked him which one he wanted. (4.) You ought to know how that is done. (5.) What is the matter with you? I have a terrible toothache. (6.) Take off your gloves and sit down. (7.) They say that he died a few days ago, but few people believe it. (8.) We have no more paper, we cannot write any more. (9.) When it is warm, horses and men are thirsty. (10.) This was the question which people were asking of one another almost every day.

5. Translate:—

(*a.*) Marguerite de Waldemar, la Sémiramis du Nord, reine de Danemark et de Norvège, conquit la Suède par force et par adresse, et fit un seul royaume de ses trois vastes États. Après sa mort, la Suède fut déchirée par des guerres civiles; elle secoua le joug des Danois, elle le reprit, elle eut des rois, elle eut des administrateurs. Deux tyrans l'opprimèrent d'une manière horrible vers l'an 1520. L'un était Christian II, roi de Danemark, monstre formé de vices sans aucune vertu: l'autre, un archevêque d'Upsal, primat du royaume, aussi barbare que Christian. Tous deux de concert firent saisir un jour les consuls, les magistrats de Stockholm, avec quatre-vingt-quatorze sénateurs, et les firent massacrer par des bourreaux, sous prétexte qu'ils étaient excommuniés par le pape pour avoir défendu les droits de l'État contre l'archevêque.

(*b.*) L'archevêque d'Upsal est en possession de faire la cérémonie du sacre et du couronnement; c'est, de tant de droits que ses prédécesseurs s'étaient arrogés, presque le seul qui lui reste. Après avoir, selon l'usage, donné l'onction au prince, il tenait entre ses mains la couronne pour la lui remettre sur la tête: Charles l'arracha des mains de l'achevêque, et se couronna lui-même, en regardant fièrement le prélat. La multitude, à qui tout air de grandeur impose toujours, applaudit à l'action du roi; ceux même qui avaient le plus gémi sous le despotisme du père se laissèrent entraîner à louer dans le fils cette fierté qui était l'augure de leur servitude.

(*c.*) Le roi paraissait abîmé dans une réverie profonde. "Puis-je prendre la liberté, lui dit Piper, de demander à Votre Majesté à quoi elle songe si sérieusement?"—"Je songe, répondit le prince, que je me sens digne de commander à ces braves gens; et je voudrais que ni eux ni moi ne reçussions l'ordre d'une femme." Piper saisit dans le moment l'occasion de faire une grande fortune. Il n'avait pas assez de crédit pour oser se charger lui-même de l'entreprise dangereuse d'ôter la régence à la reine et d'avancer la majorité du roi; il proposa cette négociation au comte Axel Sparre, homme ardent, et qui cherchait à se donner de la considération: il le flatta de la confiance du roi. Sparre le crut, se chargea de tout, et ne travailla que pour Piper. Les conseillers de la régence furent bientôt persuadés: c'était à qui précipiterait l'éxécution de ce dessein, pour s'en faire un mérite auprès du roi.

6. Translate freely:—

Born in 1694, François Marie Arouet at an early date (i.e., early) made himself famous by the publication of numerous pamphlets, a dangerous way of gaining fame (célébrité) in those palmy (beau) days of the ancient régime. Suspected (soupçonner) of being the author of an attack on the Regent, of which he this time was really innocent, the young man found himself one fine morning inside (enfermé à) the Bastille, where he remained until it pleased his custodians (gardien) to find out (discover) his innocence.

GERMAN. (Time, 3 hours.)

1. Turn the second clause of each of the following sentences into a relative clause:—

(1.) Der Schüler iſt fleißig; der Lehrer lobt ihn. (2.) Der Herr iſt unſer Gaſt; ich habe ſein Haus gekauft. (3.) Die Dame iſt heute abgereiſt; wir ſind ihr begegnet. (4.) Unſere Freunde ſind lange krank geweſen; wir ſchicken ihnen Blumen. (5.) Wir haben geſtern das Schauſpiel geleſen; ich erzählte ihnen davon.

2. Illustrate the use of the following prepositions by means of short but well-constructed German sentences: auf; um; nach; wegen.

Write also short sentences illustrating the difference between hin— and her—, and between aber, ſondern, and allein.

3. Turn the second clause of each of the following sentences into indirect statements or questions:—

(1.) Man ſagte: Der Offizier wird die Einladung annehmen. (2.) Man fragte: Sind ſie müde? (3.) Man ſagt: Er hat den Revolvir geholt. (4.) Der Scheik fragt: Hatte er den Löwen getötet? (5.) Der Diener antwortete: Es iſt uns gelungen, das Tier zu töten.

4. Change the following sentences into sentences expressing unreal conditions and results:—

(1.) Ich werde morgen ein Haus kaufen, wenn ich geld habe. (2.) Er wird kommen, wenn er kann. (3.) Das mag ich wohl, wenn ich darf. (4.) Wir müſſen uns am Bahnhof trennen, wenn Sie nicht kommen können. (5.) Wir laſſen ihn gehen, wenn er nichts davon weiß.

5. Translate:—

(1.) As a child I didn't like to go to school, but I had to. (2.) At what time can you come to-morrow morning? At a quarter to ten. (3.) He saved the one who could swim, and let the other drown. (4.) When I said that, I was not believed. (5.) I suppose he isn't in town. Yes, he is. (6.) At one time it seemed as if he would succeed. (7.) The teacher is satisfied with the exercises written by his pupils. (8.) As long as he needed my help he flattered my vanity. (9.) I am sorry not to have heard him when he was here. (10.) Instead of my helping you always, you must learn to help yourselves.

6. (*a.*) Als er geſtorben war und ſich eben auf den Weg nach dem Himmel machen wollte, kam ein Englein geflogen, brachte einen goldenen Schlüſſel und ſagte: „Einen ſchönen Gruß vom heiligen Petrus, und er hätte gerade heute auswärts zu thun; darum möchtet ihr nur ſelbſt das Himmelsthor aufſchließen und ohne Umſtände eintreten."

Der alte Jürgen dankte und ſteckte den Himmelsſchlüſſel in ſein Wams, dann lud er das ſchwere Netz auf die Schultern und begann die breite Wolkenſtraße hinanfzuſteigen. Auf dem Wege ſchaute er immer um und ſprach bei ſich: „Meine Alte wird gewiß bald nachkommen, denn ſie überlebt meinen Tod nicht lange."

(*b.*) Aus der großen Weltreiſe konnte natürlich vor der Hand nichts werden, aber aufgeſchoben iſt ja nicht aufgehoben. Der Geſell mußte ſein Meiſterſtück machen und dann kam die Hochzeit. Wer denkt da ans Reiſen?

Später ſprach auch die Sorge in der Schuſterwerkſtatt vor. Die Zahl der Köpfe wuchs mit jedem Jahr, und Criſpin mußte vom Morgen bis Abend die Hände rühren. Aber wenn er endlich ſein Schurzfell abgelegt hatte, nahm er die Landkarte vor oder eine Reiſebeſchreibung. Die Siebenmeilenſtiefel hütete er ſorgfältig und erhielt das Leder durch fleißiges Salben geſchmeidig.

(*c.*) Die Köfferchen waren ſo leicht, daß ſie von ſelbſt in die Höhe zu ſpringen ſchienen, als er ſie mit ſeinen geſunden Armen auf die Schulter hob; nichtsdeſtoweniger ging er ſchwer und keuchend, als wenn eine Bergeslaſt auf ihm ruhte. Seufzend zeigte er dem fröhlichen Paare den Weg zwiſchen den Vignenmauern aufwärts und ſchritt traurig hinter ihnen her. Alle paar Minuten ſtand er ſtill und lehnte ſich an die Mauer in einer Stellung, als ob er eben im Begriff wäre, entkräftet zuſammenzubrechen. Der fremde Herr wollte dann wohl zornig werden und ihn mit harten Worten an die rüſtigere Erfüllung der übernommenen Pflicht mahnen, doch das zierliche Frauchen kam ihm jedes Mal zuvor und hieß ihn den Augenblick zum Genuß der herrlichen Landſchaft benutzen. Trotz der ſich immer häufiger wiederholenden Schwächezufälle des überbürdeten Trägers kamen die Reiſenden doch endlich, wenn auch als die letzten von allen Caprifahrern dieſes Tages, am wackeren Hotel Pagano an.

Senior Grade.

Composition. (Time, 2 hours.)

Write an essay on one of the following subjects:—

(1.) Great Books and Wise Readers. (Sesame and Lilies.)

(2.) The Supernatural Element in the Ancient Mariner.

(3.) The Revolution in Russia.

Geography. (Time, 1½ hours.)

1. What are the conditions which produce weather changes on the Coast of British Columbia?

2. Account for the formation of igneous rocks, sedimentary rocks, fertile soil.

3. Discuss causes leading to the formation of flood-plains, deltas, waterfalls.

4. What are moraines? Show how they have affected the drainage of North America.

5. What are the chief causes of Volcanoes and Earthquakes? Explain their action.

Geometry. (Time, 3 hours.)

1. To draw a rectilineal figure which shall be equal to one and similar to another rectilineal figure.

2. Given the base, the vertical angle, and the radius of the inscribed circle, construct the triangle.

3. Similar triangles are to one another in the duplicate ratio of their homologous sides.

4. To bisect a triangle by a line drawn parallel to one of its sides.

5. About a given circle to circumscribe a triangle equiangular to a given triangle.

6. On a given straight line as base, describe an isosceles triangle equal to a given triangle whose sides are each unequal to the given line.

7. To divide a given straight line internally and externally so that its segments may be in a given ratio.

8. ABC is an isosceles triangle in which each of the angles B and C is double the angle A. Show that the square on AB is equal to the rectangle AB.BC with the square on BC.

FRENCH. (Time, 3 hours.)

1. Put in the correct tenses the infinitives in brackets:—

Jean Valjean (être) d'une pauvre famille de paysans. Il (avoir) perdu en bas âge son père et sa mère. Il ne lui (rester) qu'une soeur qui avait sept enfants. Mais un jour le mari (mourir). Jean le (remplacer) auprès des enfants. Sa soeur et lui en travaillant dur (joindre) les deux bouts avec difficulté. Mais il (arriver) qu'un hiver (être) rude. Jean (n'avoir) pas d'ouvrage. Les enfants n'(avoir) pas de pain. Un dimanche soir un boulanger du village se (disposer) à se coucher lorsqu'il (entendre) un coup violent dans la devanture de sa boutique. Il (arriver) à temps pour voir un bras passé à travers le trou fait dans la devanture. Le bras (saisir) un pain et l'(emporter). Le boulanger (sortir) en hâte, (courir) après le voleur et l'(arrêter). C'(être) Jean Valjean.

2. Put in the proper mood and tense each of the infinitives in brackets:—

Paul veut des meubles pour sa chambre. Il croit qu'il lui (falloir) un lit neuf.—"Mais, crois-tu, dit sa mère, que cela te (être) nécessaire?—Oui, maman; il me semble aussi que j'(avoir) besoin d'un fauteuil.—Moi, je ne pense pas que tu en (avoir) besoin. Nous mettrons quelques chaises dans la chambre, afin que les camarades (pouvoir) s'asseoir.—J'espère au moins que j'(avoir) une table de travail.—Oui, il est clair que tu en (avoir) besoin et je crois qu'il te (falloir) aussi une commode, mais je ne crois pas qu'il te (falloir) une toilette, mais il faut que nous (garnir) ta chambre de quelques gravures.

3. Translate:—

(1.) All the old people are more serious. (2.) We didn't have any of the cheese we had bought. (3.) I shall make them write their exercises. (4.) Get the tailor to come. (5.) I made them pay for it. (6.) If he happened to see the book. (7.) My mother doesn't want me to touch them. (8.) He ought to have come sooner. (9.) John has been punished for losing his books. (10.) These pears look ripe, and they smell so sweet!

4. Translate:—

(*a.*) J'allais éperdument, les bras collés au corps, sans sentir les pierres qui roulaient sur mes talons, et sans regarder où je posais mes pieds. L'espace fuyait sous moi; rochers et buissons samblaient courir en sens inverse aux deux côtés de la route; j'étais léger, j'étais rapide, mon corps ne pesait rien: j'avais des ailes. Mais ce bruit de quatre pieds fatiguait mes oreilles. Tout à coup ils s'arrêtent, je n'entends plus rien. Seraient-ils las de me poursuivre? Un petit nuage de poussière s'élève à dix pas devant moi. Un peu plus loin, une tache blanche s'applique brusquement sur un rocher gris. Deux détonations retentissent en même temps. Les brigands venaient de décharger leurs pistolets, j'avais essuyé le feu de l'ennemi et je courais toujours. La poursuite recommence; j'entends deux voix haletantes qui me crient: "Arrête! arrête!" Je n'arrête pas. Je perds le chemin, et je cours toujours, sans savoir où je vais. Un fossé se présente, large comme une rivière; mais j'étais trop bien lancé pour mesurer les distances. Je saute: je suis sauvé. Mes bretelles cassent, je suis perdu!

(*b.*) The king charged the Corfiote to attend to us. He had orders to sleep near my tent, which consisted of a strip of felt. In the night a dreadful fusilade awoke us with a start, and, rising suddenly, I knocked my head against the dog of a Corfiote. I thought it was the gendarmes, but he said that they did not travel on the 1st of May, which was a holiday. He invited us to see the festivities, and we followed him to the robber camp, where we heard rifle shots going off in all directions.

5. (*a.*) Translate:—

"Pauvre père Jouve! Il s'était sans doute imaginé qu'on voulait l'empêcher d'assister à ce défilé de nos troupes, pour lui éviter une trop grande émotion.

Aussi se garda-t-il bien de parler à personne; mais le lendemain, à l'heure même où les bataillons prussiens s'engageaient timidement sur la longue voie qui mène de la porte Maillot aux Tuileries, la fenêtre de là-haut s'ouvrit doucement, et le colonel parut sur le balcon avec son casque, sa grande latte, toute sa vieille défroque glorieuse d'ancien cuirassier de Milhaud. Je me demande encore quel effort de volonté, quel sursaut de vie l'avait ainsi mis sur pied et harnaché. Ce qu'il y a de sûr, c'est qu'il était là, debout derrière la rampe, s'étonnant de trouver les avenues si larges, si muettes, les persiennes des maisons fermées, Paris sinistre comme un grand lazaret, partout des drapeaux, mais si singuliers, tout blancs avec des croix rouges, et personne pour aller au-devant de nos soldats.

(*b.*) Racontez en français l'histoire du siège de Berlin et montrez l'intérêt de ce conte dans les circonstances présentes.

6. (*a.*) Translate:—

Le soldat, à qui l'on avait promis l'appui de Grouchy et qui n'a vu arriver que Bülow et Blücher, se croit trahi, perd la tête et n'écoute plus la voix de ses chefs. La nuit d'ailleurs est venue compléter le désastre; il est plus de neuf heures. L'armée débandée, poursuivie par la cavalerie ennemie, ne sait plus si l'empereur est vivant ou mort, et court affolée vers la route de France. Les carrés de la garde, au milieu desquels se trouve Napoléon, noyés dans les flots de l'ennemi, reculent en combattant sans cesse. Avec un courage non moins admirable, on vit, après que nos régiments eurent été rompus, des groupes d'officiers et de soldats d'élite, serrés autour des aigles, se frayer un passage à travers l'ennemi. Pas un drapeau ne fut perdu dans cette immense déroute. Soixante-douze mille hommes avaient succombé sous l'effort de cent trente mille, après dix heures d'une lutte acharnée. La victoire coûtait à l'ennemi plus de vingt-deux mille hommes, dont les deux tiers aux Anglais.

(*b.*) Racontez brièvement l'entrée de Napoléon à Paris à son retour de l'île d'Elbe, ou bien, faites une courte description de ses occupations journalières à Sainte-Hélène.

PHYSICAL SCIENCE. (Time, 1½ hours.)

1. (*a.*) How is Boyle's Law proved by experiment?

(*b.*) A given mass of air has a volume of 120 c.c. when the pressure is 740 m.m. of mercury. At what pressure will its volume be 100 c.c., the temperature remaining constant?

2. (*a.*) State Newton's Laws of Motion.

(*b.*) Discuss at least one example of the operation of each law.

3. A certain brass rod is 10 feet long at 20° C. What will be its length at 100° C., the coefficient of expansion of brass being 0.000019?

4. Give a short statement of the physical meaning of the absolute zero.

5. If a voltaic cell of E.M.F. 2 volts maintains a current of 1.5 amperes through an external resistance of 1 ohm, what is the internal resistance of the cell?

6. (*a.*) How is an electro-magnet constructed?

(*b.*) Given the direction of the current in a solenoid, show, in a drawing, how to predict the polarity of the coil.

7. How would you proceed to show that there are two kinds of electrification?

ENGLISH LITERATURE. (Time, 3 hours.)

1. Quote three of the following:—
   (*a.*) A stanza from the "Cotter's Saturday Night."
   (*b.*) A passage of about ten lines from "The Vanity of Human Wishes."
   (*c.*) A stanza from "Adonais."
   (*d.*) A passage from "Sesame and Lilies."

2. Write a page or so on each of the following topics:—
   (*a.*) The relations of crime, punishment, and forgiveness in "The Ancient Mariner."
   (*b.*) The originality and the basis in truth of "Intimations of Immortality."
   (*c.*) Ruskin's dictum, "Shakespeare has no heroes, only heroines."
   (*d.*) Ruskin's moral earnestness.

3. How is the Pretender connected with the plot of "Henry Esmond"? Criticize the plot in one important particular. Contrast this novel in two ways with the work of Scott.

4. Write on each of the following:—
   (*a.*) Pope's wit and humour in "The Rape of the Lock."
   (*b.*) The references Spenser makes to his own life in "Prothalamion."
   (*c.*) The lessons George Eliot evidently teaches in her sketch of Godfrey Cass.

5. In what ways is "Adonais" characteristic of Shelley?

6. (*a.*) "When Shakespeare arrived in London, only two theatres existed." (*S. Brooke.*) Name these theatres. When did Shakespeare arrive in London?
   (*b.*) "The Second Stage of the drama ranges from 1580-1596." (*S. Brooke.*) Give an account of this stage. What plays had Shakespeare written before 1596?

ALGEBRA. (Time, 3 hours.)

1. Divide $6xy^{\frac{1}{2}}(x-y) - x^{\frac{3}{2}}y\sqrt{6}$ by $2x\sqrt{3} - 3x^{\frac{1}{2}}y^{\frac{1}{2}}\sqrt{2}$.

2. The sum of five numbers of an Arithmetical Progression is 10 and the sum of their squares is 60. Find the numbers.

3. Prove by the Binomial Theorem that $1 + \frac{3}{4} + \frac{3.5}{4.8} + \frac{3.5.7}{4.8.12} + \ldots$ ad inf. $= \sqrt{8}$.

4. (*a.*) Find the term independent of x in the expansion of $\left(3x^2 - \frac{a}{3x^3}\right)^{10}$.
   (*b.*) Expand to four terms $\left(x^{2n} + na^{2n}\right)^{\frac{5}{n}}$.

5. Insert seven harmonic means between $\frac{1}{4}$ and $\frac{1}{18}$ and find the sum of their reciprocals.

6. (*a.*) Form the quadratic equation whose roots are $5 \pm \sqrt{6}$.
   (*b.*) If the roots of $x^2 - px + q = 0$ are two consecutive integers, prove that $p^2 - 4q - 1 = 0$.

7. (*a.*) If $p:q$ be the duplicate ratio of $p-r:q-r$, prove that r is a mean proportional between p and q.
   (*b.*) Solve $\frac{\sqrt{x}+a}{\sqrt{x}-b} = \frac{\sqrt{x}-a}{\sqrt{x}}$.

8. (*a.*) Given log 2 = .3010300, log 3 = .4771213, log 7 = .8450980, find the logarithms of .005, 6.3, $\left(\frac{49}{216}\right)^{\frac{1}{3}}$.

(*b.*) Find x from the equation $18^{8-4x} = (54\sqrt{2})^{3x-2}$.

9. (*a.*) If the number of combinations of n things when taken 5 at a time is equal to the number when taken 10 at a time, find the number of combinations 2 at a time.

(*b.*) There are 8 white billiard balls exactly alike, and 4 red ones also alike; in how many ways can an arrangement be made containing 3 of each colour?

Roman History. (Time, 2 hours.)

[Note.—*Write on question 1 and any* four *of the other topics.*]

1. Write notes on: Comitia Centuriata; Tribunes of the Plebs; Censor; Zama; Constitutional Changes of Sulla; Philippi; Pretorian Guard; Colosseum; Edict of Milan.

2. The prominent characteristics of early Roman character and the changes effected thereon by foreign conquests.

3. The condition and disabilities of the Plebs at the beginning of the Republic 509 B.C., and an account of their struggle with the Patricians from 509 B.C. to 367 B.C., inclusive.

4. The career of Gaius Marius, noting the social and political condition of Rome at this period.

5. Contrast Rome with Carthage, and write an account of the final struggle between these two states.

6. The reign of Justinian.

7. The final location within the Empire of the barbarian races that invaded it, with the history of *one* of these races.

8. The reign of Charlemagne.

Latin. (Time, 3 hours.)

A. (*a.*) Translate:—

Deinde, quod nos eadem Asia atque idem iste Mithridates initio belli Asiastici docuit, id quidem certe calamitate docti memoria retinere debemus. Nam tum, cum in Asia res magnas permulti *amiserant*, scimus Romae solutione impedita fidem concidisse. Non enim possunt una in civitate multi rem ac fortunas amittere, ut non plures secum in eandem *trahant* calamitatem.

1. To what is Cicero referring in the first sentence?
2. Explain tense of *amiserant* and mood of *trahant*.

(*b.*) Translate:—

Hic miramur hunc hominem tantum excellere ceteris, cuius legiones sic in Asiam pervenerint, ut non modo manus tanti exercitus, sed ne vestigium quidem cuiquam pacato nocuisse dicatur? Iam vero quem ad modum milites *hibernent*, cotidie sermones ac litterae perferuntur. Non modo ut sumptum faciat in militem nemini vis adfertur sed ne cupienti quidem cuiquam permittitur. *Hiemis* enim, non *avaritiae* perfugium maiores nostri in sociorum atque amicorum tectis esse voluerunt.

1. *Hiemis enim, non avaritiae perfugium.* Explain the double use of the genitive.
2. Explain the mood of *hibernent* and case of *cupienti*.

(*c.*) Translate:—

Hoc si *vos* temere fecistis et rei publicae parum consuluistis, recte *isti* studia vestra suis consiliis regere conantur: sin autem vos plus tum in re publica vidistis, vos his *repugnantibus* per vosmet ipsos dignitatem huic imperio, salutem orbi terrarum attulistis, aliquando isti principes et *sibi* et ceteris populi Romani universi *auctoritati* parendum esse fateantur.

1. *Principes et sibi . . . fateantur.* Explain the datives *sibi* and *auctoritati.* When is the use of the double dative a legitimate construction?
2. *Rei publicae consuluistis. Consulo* does not always take a dative. Explain.
3. Who are meant by *vos, isti?* Case of *repugnantibus.*

(*d.*) What are the three main sections into which Cicero divides his argument? In which of these does he show the greatest ability? What is the weakest part of the whole speech?

B. Translate into Latin:—

Can you not, fellow-citizens, defend the great reputation of your sovereignty handed down to you by your ancestors, who were not indifferent to the infringement of their liberties but, when the right of ambassadors was violated merely by a word, desired to destroy Corinth, the ornament of entire Greece? How long will you permit this king to go unpunished, who has slaughtered thousands of our citizens and allies and has punished an ambassador of the Roman people with every kind of torture? Now all the states in all Asia and Greece cherish this same desire; namely, that you dispatch the one man by whom the attacks of the enemy can be stayed.

C. (*a.*) Translate:—

Quisquis es, amissos hinc iam obliviscere Graios;
Noster eris, mihique haec edissere vera roganti:
Quo molem hanc inmanis equi statuere? quis auctor?
Quidve petunt? quae religio? aut quae machina belli?

1. Parse *obliviscere, roganti, statuere.*
2. What is the literal meaning of *quo?*

(*b.*) Translate:—

Hanc tamen inmensam Calchas attollere molem
Roboribus textis caeloque educere iussit,
Ne recipi portis, aut duci in moenia posset,
Neu populum antiqua sub religione tueri.
Nam si vestra manus violasset dona Minervae,
Tum magnum exitium—quod di prius omen in ipsum
Convertant!—Priami inperio Phrygibusque futurum.

1. Account for the case of *violasset, convertant, futurum.*
2. Scan the last two lines.

(*c.*) Translate:—

Qualis ubi in lucem coluber mala gramina pastus,
Frigida sub terra tumidum quem bruma tegebat,
Nunc, positis novus exuviis nitidusque iuventa,
Lubrica convolvit sublato pectore terga
Arduus ad solem, et linguis micat ore trisulcis.

(*d.*) Translate:—

Forsitan et, Priami fuerint quae fata, requiras.

1. Account for the mood of *fuerint, requiras.*

(*e.*) Translate:—

Namque etsi nullum memorabile nomen
Feminea in poena est nec habet victoria laudem,
Exstinxisse nefas tamen et sumpsisse merentis
Laudabor poenas, animumque explesse iuvabit
Ultricis flammae, et cineres satiasse meorum.

1. Account for the case of *merentis, flammae.*
2. What is the subject of *iuvabit?*

(*f.*) Translate:—

Est urbe egressis tumulus templumque vetustum
Desertae Cereris, iuxtaque antiqua cupressus
Religione patrum multos servata per annos.

1. Account for the case of *egressis.*

D. (*a.*) Translate:—

heu quoties fidem
mutatosque deos flebit et aspera
nigris aequora ventis
emirabitur insolens,
qui nunc te fruitur credulus aurea;
qui semper vacuam, semper amabilem
sperat nescius aurae
fallacis. miseri, quibus
intentata nites! me tabula sacer
votiva paries indicat uvida
suspendisse potenti
vestimenta maris deo.

1. Account for the case of *aurea, aurae, intentata, me, tabula.*

(*b.*) Translate:—

Romulum post hos prius, an quietum
Pompili regnum memorem, an superbos
Tarquini fasces, dubito, an Catnois
nobile letum.
Regulum et Scauros animaeque magnae
prodigum Paullum superante Poeno
gratus insigni referam Camena
Fabriciumque.
hunc et incomptis Curium capillis
utilem bello tulit et Camillum
saeva paupertas et avitus apto
cum lare fundus.

1. Account for the mood of *memorem;* the case of *animae.*
2. Write historical notes.
3. What metre is this?

(*c.*) Translate:—

Nullam, Vare, sacra vite prius severis arborem
circa mite solum Tiburis et moenia Catili.
siccis omnia nam dura deus proposuit, neque
mordaces aliter diffugiunt sollicitudines.

1. Account for the case of *siccis;* the mood of *severis.*

(*d.*) Translate:—

quod si Threïcio blandius Orpheo
auditam moderere arboribus fidem,
non vanae redeat sanguis imagini,
quam virga semel horrida,
non lenis precibus fata recludere,
nigro compulerit Mercurius gregi.
durum: sed levius fit patientia,
quidquid corrigere est nefas.

1. Account for the case of *gregi;* the mood of *moderere.*

GREEK. (Time, 3 hours.)

A. (*a.*) Translate:—

εἰς δὲ δὴ εἶπε, προσποιούμενος σπεύδειν ὡς τάχιστα πορεύεσθοι εἰς τὴν Ἑλλάδα, στρατηγοὺς μὲν ἑλέσθαι ἄλλους ὡς τάχιστα, εἰ μὴ βούλεται Κλέαρχος ἀπάγειν· τὰ δ' ἐπιτήδεια ἀγοράζεσθαι (ἡ δ' ἀγορὰ ἦν ἐν τῷ βαρβαρικῷ στρατεύματι), καὶ συσκευάζεσθαι· ἐλθόντας δὲ Κῦρον αἰτεῖν πλοῖα, ὡς ἀποπλέοιεν· ἐάν δὲ μὴ διδῷ ταῦτα, ἡγεμόνα αἰτεῖν Κῦρον, ὅστις διὰ φιλίας τῆς χώρας ἀπάξει. ἐὰν δὲ μηδὲ ἡγεμόνα διδῷ, συντάττεσθαι τὴν ταχίστην, πέμψαι δὲ καὶ προκαταληψομένους τὰ ἄκρα, ὅπως μὴ φθάσωσι μήτε Κῦρος μήτε οἱ Κίλικες καταλαβόντες, ὧν πολλοὺς καὶ πολλὰ χρήματα ἔχομεν ἀνηρπακότες. οὗτος μὲν δὴ τοιαῦτα εἶπε. μετὰ δὲ τοῦτον Κλέαρχος εἶπε τοσοῦτον.

1. Explain fully the case of ἐλθόντας, πλοῖα, τὴν ταχίστην; mood of ἀποπλέοιεν, διδῷ.
2. What is the difference in meaning between διὰ φιλίας τῆς χώρας and διὰ τῆς φιλίας χώρας?
3. Parse φθάσωσι, ἀνηρπακότες, προκαταληψομένους.

(*b.*) Translate:—

Φίλους γε μὴν ὅσους ποιήσαιτο, καὶ εὔνους γνοίη ὄντας, καὶ ἱκανοὺς κρίνειε συνεργοὺς εἶναι ὅ τι τυγχάνοι βουλόμενος κατεργάζεσθαι, ὁμολογεῖται πρὸς πάντων κράτιστος δὴ γενέσθαι θεραπεύειν. καὶ γὰρ αὐτὸ τοῦτο, οὗπερ αὐτὸς ἕνεκα φίλων ᾕετο δεῖσθαι, ὡς συνεργοὺς ἕξοι, καὶ αὐτὸς ἐπειρᾶτο συνεργὸς τοῖς φίλοις κράτιστος εἶναι τούτου ὅτου ἕκαστον αἰσθάνοιτο ἐπιθυμοῦντα.

1. Explain syntax of γνοίη, ὄντας, οὗπερ, φίλων, ὅτου.
2. Parse ἐπειρᾶτο, αἰσθάνοιτο. What is the positive degree of κράτιστος?
3. Give the principal parts of κρίνειε, τυγχάνοι, γνοίη.

(*c.*) Translate:—

Ἐπεὶ δὲ καὶ ἐνταῦθ' ἐχώρουν οἱ Ἕλληνες, λείπουσι δὴ καὶ τὸν λόφον οἱ ἱππεῖς· οὐ μὴν ἔτι ἀθρόοι, ἀλλ' ἄλλοι ἄλλοθεν· ἐψιλοῦτο δ' ὁ λόφος τῶν ἱππέων· τέλος δὲ καὶ πάντες ἀπεχώρησαν. ὁ οὖν Κλέαρχος οὐκ ἀνεβίβαζεν ἐπὶ τὸν λόφον, ἀλλ' ὑπ' αὐτὸν στήσας τὸ στράτευμα πέμπει Λύκιον τὸν Συρακόσιον καὶ ἄλλον ἐπὶ τὸν λόφον, καὶ κελεύει κατιδόντας τὰ ὑπὲρ τοῦ λόφου τί ἐστιν ἀπαγγεῖλαι.

1. Account for the genitive ἱππέων. Parse τέλος, στήσας.

B. (*a.*) Translate :—

Μετὰ τοῦτον Θεόπομπος Ἀθηναῖος εἶπεν· "Ὦ Φαλῖνε, νῦν, ὡς σὺ ὁρᾷς, ἡμῖν οὐδὲν ἔστιν ἀγαθὸν ἄλλο εἰ μὴ ὅπλα καὶ ἀρετή. ὅπλα μὲν οὖν ἔχοντες οἰόμεθα ἂν καὶ τῇ ἀρετῇ χρῆσθαι, παραδόντες δ' ἂν ταῦτα καὶ τῶν σωμάτων στερηθῆναι. μὴ οὖν οἷον τὰ μόνα ἡμῖν ἀγαθὰ ὄντα ὑμῖν παραδώσειν· ἀλλὰ σὺν τούτοις καὶ περὶ τῶν ὑμετέρων ἀγαθῶν μαχούμεθα." ἀκούσας δὲ ταῦτα ὁ Φαλῖνος ἐγέλασε καὶ εἶπεν· "Ἀλλὰ φιλοσόφῳ μὲν ἔοικας, ὦ νεανίσκε, καὶ λέγεις οὐκ ἀχάριτα· ἴσθι μέντοι ἀνόητος ὤν, εἰ οἴει ἂν τὴν ὑμετέραν ἀρετὴν περιγενέσθαι τῆς βασιλέως δυνάμεως." ἄλλους δέ τινας ἔφασαν λέγειν ὑπομαλακιζομένους ὡς καὶ Κύρῳ πιστοὶ ἐγένοντο καὶ βασιλεῖ ἂν πολλοῦ ἄξιοι γένοιντο, εἰ βούλοιτο φίλος γενέσθαι· καὶ εἴτε ἄλλο τι θέλοι χρῆσθαι εἴτ' ἐπ' Αἴγυπτον στρατεύειν, συγκαταστρέψαιντ' ἂν αὐτῷ.

1. Express *παραδόντες* in the form of a conditional clause.
2. Rewrite *ἂν στερηθῆναι* in Oratio Recta.
3. Explain case of *σωμάτων*; parse *στερηθῆναι*; give derivation of *ἀνόητος*.
4. Explain syntax of *ὤν*, *πολλοῦ*, *ἄλλο τι*.

(*b.*) Translate :—

Ἀκούσας δὲ ὁ Κλέαρχος ταῦτα ἤρετο τὸν ἄγγελον πόση τις εἴη χώρα ἡ ἐν μέσῳ τοῦ Τίγρητος καὶ τῆς διώρυχος. ὁ δὲ εἶπεν ὅτι πολλή, καὶ κῶμαι ἔνεισι καὶ πόλεις πολλαὶ καὶ μεγάλαι. τότε δὴ καὶ ἐγνώσθη ὅτι οἱ βάρβαροι τὸν ἄνθρωπον ὑποπέμψαιεν, ὀκνοῦντες μὴ οἱ Ἕλληνες διελόντες τὴν γέφυραν μένοιεν ἐν τῇ νήσῳ, ἐρύματα ἔχοντες ἔνθεν μὲν τὸν Τίγρητα, ἔνθεν δὲ τὴν διώρυχα· τὰ δ' ἐπιτήδεια ἔχοιεν ἐκ τῆς ἐν μέσῳ χώρας πολλῆς καὶ ἀγαθῆς οὔσης, καὶ τῶν ἐργασομένων ἐνόντων· εἶτα δὲ καὶ ἀποστροφὴ γένοιτο, εἴ τις βούλοιτο βασιλέα κακῶς ποιεῖν.

1. Explain syntax of *εἴη*, *ἐνόντων*, *γένοιτο*.
2. Parse *ἐγνώσθη*, *διελόντες*.

C. Translate into Greek :—

1. Upon this there arose great terror among the rest of the barbarians; the Cilician queen fled from her car and the people in the market deserted their goods and took to their heels, while the Greeks marched up to the tents with laughter.
2. Here Cyrus and the army remained twenty days; for the soldiers refused to proceed farther as they now began to suspect that they were marching against the king and said they had not been hired for that purpose.

TRIGONOMETRY. (Time, 3 hours.)

1. (*a.*) Show that no root of $5 \sin \theta + 4 = 0$ can be an angle of a triangle.
   (*b.*) Prove geometrically that $\sin (270° + A) = -\cos A$.
2. (*a.*) Prove $\sin (A - B) = \sin A \cos B - \cos A \sin B$.
   (*b.*) ABC is a triangle, $B = 90°$, $BA = 2$, $BC = 3$, CD is the median joining C to the middle point of AB. Prove that $\tan ACD = \frac{3}{11}$.

3. (*a.*) Prove $\cos A + \cos B = 2 \cos \frac{A+B}{2} \cos \frac{A-B}{2}$.

(*b.*) Prove $\cos \frac{A}{2} = \sqrt{\frac{s(s-a)}{bc}}$.

(*c.*) Prove $\tan \frac{A-B}{2} = \frac{a-b}{a+b} \cot \frac{C}{2}$.

4. Find B and C, having given $A = 50°$, $b = 119$, $a = 97$, log 1.19 = .0755470, L sin 70° = 9.9729858, log 9.7 = .9867717, L sin 70° 1′ = 9.9730318, L sin 50° = 9.8842540.

5. (*a.*) The moon's distance from the earth is 240,000 miles, and its diameter subtends an angle of 31′. Find its diameter.

(*b.*) Find the number of radians in each of the angles of a triangle which are in Arithmetic Progression, the least angle being 36°.

6. Solve :—

(*a.*) $\sin 7\theta = \sin 4\theta - \sin \theta$.

(*b.*) $\tan x - \sqrt{3} \cot x + 1 = \sqrt{3}$.

7. (*a.*) If $\log \frac{1025}{1024} = p$, and $\log 2 = q$, prove $\log 4100 = p + 12q$.

(*b.*) Prove that the rectangle contained by the diameters of the circumscribed and inscribed circles of a triangle is equal to $\frac{2abc}{a+b+c}$.

8. Prove :—

(*a.*) $\sin 33° + \cos 63° = \cos 3°$.

(*b.*) $\cos \delta + \cos 3\delta + \cos 5\delta + \cos 7\delta = \frac{1}{2} \sin 8\delta \operatorname{cosec} \delta$.

GERMAN. (Time, 3 hours.)

1. (*a.*) Complete the following sentences by choosing the correct word from among those given in brackets :—

(1.) Er war in der Stube, dann ging er zur Tür (hin—, her—) aus. (2.) Er hat das Land (durchgereiſt, durchreiſt). (3.) Ich habe ihn nicht geſehen (ſeit, ſeitdem) er angekommen iſt. (4.) Frage ihn (wenn, wann, ob) er müde iſt. (5.) (Nach, nachdem, nachher) er fort war, mußte ich noch einen Brief ſchreiben.

(*b.*) Translate with special attention to prepositions :—

(1.) I am going away for a week. (2.) He is studying at the university. (3.) He complains of the heat. (4.) There is a lack of men. (5.) Pay attention to my words.

(*c.*) Put infinitives into the correct mood and tense :—

(1.) Er eilte, daß er nicht zu ſpät (kommen). (2.) Er fragte, ob er das tun (dürfen). (3.) Der gaſt antwortete, er (gedenken) den Löwen zu töten. (4.) Ich dächte das (ſein) gut. (5.) So gern ich (gehen), ſo unmöglich iſt es.

(*d.*) Put into German :—

(1.) That can easily be done. (2.) I need your help. (3.) Being honest, he can be trusted. (4.) That sort of thing often happens here. (5.) I should be allowed to do it.

2. (*a.*) Translate :—

Kaum hatte er dies ausgeſprochen, ſo fing es an Thaler zu regnen, harte, blanke Thaler, als wenn es mit Mulden göſſe, und die Thaler ſchlugen ihm auf Kopf, Schultern und Arme. Er fing an kläglich zu ſchreien und wollte zur Thüre ſpringen, doch ehe er ſie erreichen und aufriegeln konnte, ſtürzte er, am ganzen Leibe blutend, zu Boden. Aber das Thalerregnen nahm kein Ende, und bald brach von der Laſt die Diele zuſammen, und der Goldſchmied mitſammt dem Gelde ſtürzte in den tiefen Keller. Darauf regnete es immer weiter, bis die Hunderttauſend voll waren, und zuletzt lag der Goldſchmied tot im Keller und auf ihm das viele Geld. Von dem Lärm kamen die Nachbarn herbeigeeilt, und als ſie den Goldſchmied tot unter dem Gelde liegen fanden, ſprachen ſie : „Es iſt doch ein großes Unglük, wenn der Segen ſo knüppeldick kommt." Darauf kamen auch die Erben und theilten.

(*b.*) Put into German :—

She did not despair (verzweifeln), however, but determined to hold out to the end, knowing that she would redeem her husband.

Now when the knight learned (erfahren) that his wife had left him, he knew that she had found-out (merken) all.

The hermit, of whom he asked advice, told him to do good to the poor and go into all the churches, and he would find his wife again.

So the knight rode out into the world, giving money to the poor, and going into all the churches to pray.

After he had been travelling about for a whole year to-no-purpose, he came into the town where his wife sat begging at the church-door.

3. (*a.*) Translate :—

Bolz. Da faßt mich eine Menſchenhand am Genick, ein Seil wird mir unter die Arme geſchlungen und eine kräftige Fauſt hebt mich vom Boden. Im Augenblick darauf war ich auf der Leiter, halb gezogen, halb getragen, mit brennendem Hemd und ohne Bewußtſein kam ich auf dem Steinpflaſter an.— Ich erwachte in dem Zimmer des jungen Gelehrten. Außer einigen kleinen Brandwunden hatte ich nichts in die neue Wohnung herübergebracht. Alle meine Habe war verbrannt. Der fremde Mann pflegte mich und ſorgte für mich, wie ein Bruder für den andern.—Erſt als ich wieder ausgehen konnte, erfuhr ich, daß dieſer Gelehrte, der mich bei ſich aufgenommen hatte, derſelbe Mann war, der mir in jener Nacht auf der Leiter ſeinen Beſuch gemacht hatte.— Sehen Sie, der Mann hat das Herz auf dem rechten Fleck, und deshalb wünſche ich ihm, daß er jetzt Deputirter werde, und deshalb könnte ich für ihn thun, was ich für mich ſelbſt nicht thäte; ich könnte für ihn werben, intriguiren und ehrliche Leute zum Beſten haben.—Dieſer Mann iſt der Profeſſor Oldendorf.

(*b.*) Beſchreiben Sie abgekürzt die Weiſe, worauf der Oberſt und der Profeſſor ſich endlich verſöhnen.

(*c.*) Render freely into English :—

Herein mit der Dame; was ſoll das alles ? nun, das wäre ja recht ſchön; reinen Mund gehalten; was macht der Coriolan ?; das war überliſtet; das mag der Kuckuck wiſſen; nichts über kaltes Blut; ich ſchreibe friſch drauf los, ſolange es geht; oho ! das wäre mir was !

4. (*a.*) Translate :—

„Da hat man ja recht," erwiderte Dr. Kühl. „Die Engländer sind später dem Bunde beigetreten. Man darf das Verdienst der Preußen in der letzten Schlacht Napoleons nur nicht unterschätzen. Das tun die Engländer sehr gern. Sie schreiben Wellington den Sieg fast ausschließlich zu. Aber nach einem langen, erschöpfenden Tage des Kampfes rief dieser, wie die Geschichte erzählt, in seiner Verzweiflung aus: ‚Ich wünschte, es wäre Nacht, oder die Preußen kämen!' Und im entscheidenden Augenblick erschien der preußische Feldherr Blücher, der, um sein Wort zu halten, seine Soldaten zu fast übermenschlichen Anstrengungen angespornt hatte. Er griff Napoleons rechten Flügel an, und nach kurzer Zeit befand sich dessen letztes Heer in wilder Flucht. Die Weltherrschaft der Franzosen war zu Ende. Unser Preußen hatte ihnen zuerst den Krieg erklärt und hatte ihn auch zu glücklichem Ausgang geführt. Preußen war es, das den Bund zwischen Rußland, Österreich, England und Holland zustande brachte und eine wichtige Rolle in diesem Bunde spielte."

(*b.*) Beantworten Sie folgende Fragen auf Deutsch :—

(1.) Weshalb ist Weimar berühmt? (2.) Was verherrlicht Schiller in seinen Dramen? (3.) Beschreiben Sie die Siegesallee. (4.) Auf welche Weise sorgt die deutsche Regierung für den Forst? (5.) Welche Länder grenzen an Deutschland.

(*c.*) Put into German :—

(1.) Go and take this pair of shoes with you. (2.) But I brought them only yesterday. (3.) That is too bad, but leave the other pair here and come back very quickly. (4.) Please begin the poem and hold your hands still. (5.) According to the old custom he called her Liesbeth. (6.) The child knew the poem this morning. (7.) The lieutenant has never known me. (8.) He does not know how many horses he has. (9.) They always called one another comrades. (10.) His expression became more and more serious.

Senior Academic Grade.

English Literature. (Time, 3 hours.)

1. Discuss the criticism that both in "Julius Caesar" and "Macbeth" there is weakness in the fourth act.

2. (*a.*) Quote a passage of at least 15 lines from each of the above plays and comment upon the dramatic significance of each quotation.
   (*b.*) Quote ten short passages (2–6 lines) from Pope's "Essay on Man."
   (*c.*) Quote three striking sentences from "Crown of Wild Olive," *or* "Heroes and Hero-worship.

3. (*a.*) Can one apply to Brutus and Macbeth the criticism—

> "These men
> Carrying, I say, the stamp of one defect, ...
> Shall in the general censure take corruption
> From that particular fault."

   (*b.*) Where is this quotation found? What is the probable origin of this view?

4. (*a.*) Discuss the conception of history that underlies Carlyle's "Heroes and Hero-worship."
   (*b.*) Which one of the Heroes do you feel most inclined to rule out? Why?

5. Examine Goldsmith's literary work, keeping the tendencies of his day in mind.

6. About what date was "The Crown of Wild Olive" written? How was it received by the reading public? Why?

7. (*a.*) Explain Brooke's remark that the spirit of the age repressed Gray.
   (*b.*) Sketch the character of Chaucer.

Education. (Time, 2 hours.)

1. Outline the duties of a teacher in regard to:—
   (*a.*) Contagious diseases.
   (*b.*) Recesses.
   (*c.*) School property.
   (*d.*) Home lessons.
   (*e.*) Time-tables.

2. (*a.*) What provision is made for the financial support of schools?
   (*b.*) Under what conditions are Government grants given?

3. What qualifications entitle a person to vote at School Elections in:—
   (*a.*) A Municipal School District?
   (*b.*) A Rural School District?
   (*c.*) An Assisted School District?

4. State the provisions regarding school accommodation. How should the work of the teachers be divided in a two-teacher and in a three-teacher school?

5. Give outline of a lesson to an intermediate class on the physical features of British Columbia.

6. What is the chief value of Nature Study? Show how this aim can be carried out by creating an interest in school gardens.

7. (*a.*) What are the psychological values of questioning and answering to the teacher and to the pupil?

(*b.*) Distinguish between a *teaching* and a *testing* lesson. Give an illustration.

8. Explain:—

(*a.*) "Ideas not words should be taught."

(*b.*) "The Aim of the School is to produce Social Efficiency."

GREEK. (Time, 3 hours.)

A. (*a.*) Translate:—

Καὶ δὴ λαβόντες ἀμφορέας τινὰς καὶ ὑδρευσάμενοί τε ἅμα καὶ ἐκ τοῦ ποταμοῦ οἰνισάμενοι, καὶ αὐτοῦ πλησίον ἐπὶ τῆς ἠϊόνος αὐλισάμενοι, ἕωθεν ἀνήχθημεν οὐ σφόδρα βιαίῳ πνεύματι. περὶ μεσημβρίαν δέ, οὐκέτι τῆς νήσου φαινομένης, ἄφνω τυφὼν ἐπιγενόμενος καὶ περιδινήσας τὴν ναῦν, καὶ μετεωρίσας ὅσον ἐπὶ σταδίους τρισχιλίους, οὐκέτι καθῆκεν εἰς τὸ πέλαγος, ἀλλ' ἄνω μετέωρον ἐξηρτημένην. ἄνεμος ἐμπεσὼν τοῖς ἱστίοις ἔφερε κολπώσας τὴν ὀθόνην.

1. Explain syntax of *αὐτοῦ, νήσου, ὅσον, ἱστίοις.*
2. Parse *ἀνήχθημεν* and *ἐξηρτημένην.*

(*b.*) Translate:—

Ἐσθὴς δὲ τοῖς μὲν πλουσίοις ὑαλίνη, μαλθακή· τοῖς πένησι δὲ χαλκῆ ὑφαντή· πολυχαλκα γὰρ τὰ ἐκεῖ χωρία, καὶ ἐργάζονται τὸν χαλκὸν ὕδατι ὑποβρέξαντες, ὥσπερ τὰ ἔρια. περὶ μέντοι τῶν ὀφθαλμῶν, οἵους ἔχουσιν, ὀκνῶ μὲν εἰπεῖν, μή τίς με νομίσῃ ψεύδεσθαι διὰ τὸ ἄπιστον τοῦ λόγου· ὅμως δὲ καὶ τοῦτο ἐρῶ. τοὺς ὀφθαλμοὺς περιαιρετοὺς ἔχουσι· καὶ ὁ βουλόμενος ἐξελὼν τοὺς αὑτοῦ φυλάττει, ἔστ' ἂν δεηθῇ ἰδεῖν· οὕτω δὲ ἐνθέμενος ὁρᾷ. καὶ πολλοὶ τοὺς σφετέρους ἀπολέσαντες παρ' ἄλλων χρησάμενοι ὁρῶσιν. εἰσὶ δ' οἳ καὶ πολλοὺς ἀποθέτους ἔχουσιν, οἱ πλούσιοι. τὰ ὦτα δὲ πλατάνων φύλλα ἐστὶν αὐτοῖς· εἰσὶ δ' οἳ καὶ ξύλινα ἔχουσιν. ἐπειδὰν δὲ γηράσῃ ὁ ἄνθρωπος, οὐκ ἀποθνήσκει, ἀλλ' ὥσπερ ὁ καπνὸς διαλυόμενος ἀὴρ γίγνεται.

1. Explain the mood of *νομίσῃ* and *δεηθῇ.*
2. What is the usual meaning of *χρησάμενοι*? What case does it usually take? What is its object here?
3. Parse *ἐνθέμενος* and *ἀπολέσαντες.*

(*c.*) Translate:—

Βούλομαι δὲ εἰπεῖν καὶ τῶν ἐπισήμων οὕστινας παρ' αὐτοῖς ἐθεασάμην· πάντας μὲν τοὺς ἡμιθέους καὶ τοὺς ἐπὶ Ἴλιον στρατεύσαντας, πλήν γε δὴ τοῦ Λοκροῦ Αἴαντος. ἐκεῖνον δὲ μόνον ἔφασκον ἐν τῷ τῶν ἀσεβῶν χώρῳ κολάζεσθαι. βαρβάρων δὲ Κύρους τε ἀμφοτέρους καὶ τὸν Σκύθην Ἀνάχαρσιν καὶ τὸν Θρᾷκα Ζάμολξιν καὶ Νουμᾶν τὸν Ἰταλιώτην, καὶ μὴν καὶ Λυκοῦργον τὸν Λακεδαιμόνιον καὶ Φωκίωνα καὶ Τέλλον, τοὺς Ἀθηναίους, καὶ τοὺς σοφούς, ἄνευ Περιάνδρου. εἶδον δὲ καὶ Σωκράτην τὸν Σωφρονίσκου ἀδολεσχοῦντα μετὰ Νέστορος καὶ Παλαμήδους· περὶ δὲ αὐτὸν ἦσαν Ὑάκινθός τε ὁ Λακεδαιμόνιος καὶ ὁ Θεσπιεὺς Νάρκισσος καὶ Ὕλας καὶ ἄλλοι καλοί. καί μοι ἐδόκει ἐρᾶν τοῦ Ὑακίνθου· τὰ πολλὰ γοῦν ἐκεῖνον διήλεγχεν. ἐλέγετο δὲ χαλεπαίνειν αὐτῷ ὁ Ῥαδάμανθυς, καὶ ἠπειληκέναι πολλάκις ἐκβαλεῖν αὐτὸν ἐκ τῆς νήσου, ἢν φλυαρῇ καὶ μὴ θέλῃ ἀφεὶς τὴν εἰρωνείαν εὐωχεῖσθαι.

1. Why was Plato not found among the famous men inhabiting the Island of the Blessed? Who were the most popular of the inhabitants of the Island?

2. Show how Lucian's gift of satire is used in referring to Diogenes, the Stoics, and the Academics.

(*d.*) Translate:—

Ἡμέρας μὲν οὖν τριάκοντα καὶ ἴσας νύκτας παρ' αὐτοῖς ἐμείναμεν, καθεύδοντες καὶ εὐωχούμενοι. ἔπειτα δὲ ἄφνω βροντῆς μεγάλης καταραγείσης, ἀνεγρόμενοι καὶ ἀναθορόντες, ἀνήχθημεν ἐπισιτισάμενοι. τριταῖοι δ' ἐκεῖθεν τῇ Ὠγυγίᾳ νήσῳ προσσχόντες ἀποβαίνομεν. πρότερον δ' ἐγὼ λύσας τὴν ἐπιστολὴν ἀνεγίγνωσκον τὰ γεγραμμένα. ἦν δὲ τοιάδε. "ΟΔΥΣΣΕΥΣ ΚΑΛΥΨΟΙ χαίρειν. ἴσθι με, ὡς τὰ πρῶτα ἐξέπλευσα παρὰ σοῦ τὴν σχεδίαν κατασκευασάμενος, ναυαγίᾳ χρησάμενον καὶ μόλις ὑπὸ Λευκοθέας διασωθέντα εἰς τὴν τῶν Φαιάκων χώραν, ὑφ' ὧν ἐς τὴν οἰκείαν ἀποπεμφθεὶς κατέλαβον πολλοὺς τῆς γυναικὸς μνηστῆρας ἐν τοῖς ἡμετέροις τρυφῶντας. ἀποκτείνας δὲ ἅπαντας ὕστερον ὑπὸ Τηλεγόνου τοῦ ἐκ Κίρκης μοι γενομένου ἀνῃρέθην. καὶ νῦν εἰμι ἐν τῇ Μακάρων νήσῳ, πάνυ μετανοῶν ἐπὶ τῷ καταλιπεῖν τὴν παρὰ σοὶ δίαιταν, καὶ τὴν ὑπὸ σοῦ προτεινομένην ἀθανασίαν. ἦν οὖν καιροῦ λάβωμαι, ἀποδρὰς ἀφίξομαι πρὸς σέ."

1. Explain construction of τριταῖοι, χρησάμενον, ἡμετέροις, καιροῦ, λάβωμαι, ἀποδρὰς.

2. Taking his description of the City of Dreams as an example, show Lucian's great power of inventing consistent details.

B. Translate into Greek:—

"And if I am victorious," he added, "in the campaign which I am now commencing against the inhabitants of the Sun, I promise you an exceedingly pleasant life at my court." We asked about the enemy and the quarrel. "Phaethon," he replied, "king of the Sun has long been at war with us. The occasion was this: I wished at one time to collect the poorest of my subjects and send them as a colony to Lucifer which is uninhabited. Phaethon took umbrage at this, met the emigrants half way with a troop of Horse-ants and forbade them to proceed."

C. (*a.*) Translate:—

ἀλλὰ σοὶ, ὦ μέγ' ἀναιδές, ἅμ' ἑσπόμεθ', ὄφρα σὺ χαίρῃς,
τιμὴν ἀρνύμενοι Μενελάῳ σοί τε, κυνῶπα,
πρὸς Τρώων· τῶν οὔ τι μετατρέπῃ οὐδ' ἀλεγίζεις·
καὶ δή μοι γέρας αὐτὸς ἀφαιρήσεσθαι ἀπειλεῖς,
ᾧ ἔπι πόλλ' ἐμόγησα, δόσαν δέ μοι υἷες Ἀχαιῶν.
οὐ μὲν σοί ποτε ἶσον ἔχω γέρας, ὁππότ' Ἀχαιοὶ
Τρώων ἐκπέρσωσ' εὖ ναιόμενον πτολίεθρον·
ἀλλὰ τὸ μὲν πλεῖον πολυάϊκος πολέμοιο
χεῖρες ἐμαὶ διέπουσ'· ἀτὰρ ἤν ποτε δασμὸς ἵκηται,
σοὶ τὸ γέρας πολὺ μείζον, ἐγὼ δ' ὀλίγον τε φίλον τε
ἔρχομ' ἔχων ἐπὶ νῆας, ἐπεὶ κε κάμω πολεμίζων.
νῦν δ' εἶμι Φθίηνδ', ἐπεὶ πολὺ φέρτερόν ἐστιν
οἴκαδ' ἴμεν σὺν νηυσὶ κορωνίσιν, οὐδέ σ' ὀΐω
ἐνθάδ' ἄτιμος ἐὼν ἄφενος καὶ πλοῦτον ἀφύξειν.

1. Give the Attic equivalents of δόσαν, πολέμοιο, ἴμεν.

2. Explain the case of σοί and mood of κάμω.

(*b.*) Translate:—

Ὣς φάτο, Πάτροκλος δὲ φίλῳ ἐπεπείθεθ' ἑταίρῳ,
ἐκ δ' ἄγαγε κλισίης Βρισηΐδα καλλιπάρῃον,
δῶκε δ' ἄγειν· τὼ δ' αὖτις ἴτην παρὰ νῆας Ἀχαιῶν·
ἡ δ' ἀέκουσ' ἅμα τοῖσι γυνὴ κίεν· αὐτὰρ Ἀχιλλεὺς
δακρύσας ἑτάρων ἄφαρ ἕζετο νόσφι λιασθείς,
θῖν' ἔφ' ἁλὸς πολιῆς, ὁρόων ἐπ' ἀπείρονα πόντον·
πολλὰ δὲ μητρὶ φίλῃ ἠρήσατο χεῖρας ὀρεγνύς·
"μῆτερ, ἐπεί μ' ἔτεκές γε μινυνθάδιόν περ ἐόντα,
τιμήν πέρ μοι ὄφελλεν Ὀλύμπιος ἐγγυαλίξαι
Ζεὺς ὑψιβρεμέτης· νῦν δ' οὐδέ με τυτθὸν ἔτισεν·
ἦ γάρ μ' Ἀτρεΐδης εὐρὺ κρείων Ἀγαμέμνων
ἠτίμησεν· ἑλὼν γὰρ ἔχει γέρας, αὐτὸς ἀπούρας."

1. Parse *τώ*; explain case of *ἑτάρων* and *θῖν'*.

2. What is the full force of *αὐτός* in the last line? What is the derivation of *καλλιπάρῃον* and *ὑψιβρεμέτης*?

(*c.*) Translate:—

Τὸν δ' ἠμείβετ' ἔπειτα βοῶπις πότνια Ἥρη·
"αἰνότατε Κρονίδη, ποῖον τὸν μῦθον ἔειπες·
καὶ λίην σε πάρος γ' οὔτ' εἴρομαι οὔτε μεταλλῶ,
ἀλλὰ μάλ' εὔκηλος τὰ φράζεαι ἅσσ' ἐθέλῃσθα.
νῦν δ' αἰνῶς δείδοικα κατὰ φρένα μή σε παρείπῃ
ἀργυρόπεζα Θέτις θυγάτηρ ἁλίοιο γέροντος·
ἠερίη γὰρ σοί γε παρέζετο καὶ λάβε γούνων·
τῇ σ' ὀΐω κατανεῦσαι ἐτήτυμον ὡς Ἀχιλῆα
τιμήσῃς, ὀλέσῃς δὲ πολέας ἐπὶ νηυσὶν Ἀχαιῶν."

1. Parse *ἅσσ'* and *ἐθέλῃσθα*.

2. Explain case of *γούνων*, *τῇ*; mood of *τιμήσῃς*.

LATIN. (Time, 3 hours.)

A. (*a.*) Translate:—

Haec primo statim anno *comprimendo* egregiam famam *paci* circumdedit, quae vel *incuria* vel intolerantia priorum haud minus quam bellum timebatur. Sed ubi aestas advenit, contracto exercitu multus in agmine, *laudare* modestiam, disiectos coërcere; loca castris ipse capere, aestuaria ac silvas ipse praetentare; et nihil interim apud hostes quietum pati, quominus subitis excursibus popularetur; atque ubi satis terruerat, parcendo rursus irritamenta pacis ostentare. Quibus rebus multae civitates, quae in illumdiem ex *aequo* egerant, datis obsidibus iram posuere, et *praesidiis* castellisque circumdatae, et tanta ratione curaque *ut* nulla ante Britanniæ *nova pars*.

1. Explain case of *comprimendo, paci, incuria, praesidiis;* mood of *laudare*.

2. What gender is *aequo*? What might have been used in place of *ut*? What predicate must be supplied for *nova pars*?

(*b.*) Translate:—

Inventa Britannia et subacta. Equidem saepe in agmine, cum vos paludes montesve et flumina fatigarent, fortissimi cuiusque voces audiebam: quando dabitur hostis, quando acies? Veniunt, e latebris suis extrusi, et vota virtusque in aperto, omniaque prona victoribus, atque eadem victis adversa. Nam ut

superasse tantum itineris, silvas evasisse, transisse aestuaria pulchrum ac decorum in frontem, ita fugientibus pericolosissima, quae hodie prosperrima sunt. Neque enim nobis aut locorum eadem notitia aut commeatuum eadem abundantia sed manus et arma, et in his omnia. Quod ad me attinet, iam pridem mihi decretum est neque exercitus neque ducis terga tuta esse. Proinde et honesta mors turpi vita potior, et incolumitas ac decus eodem loco sita sunt; nec inglorium fuerit in ipso terrarum ac naturae fine cecidisse.

B. Translate into Latin:—

1. Domitian heard the news of Agricola's great success with joy in his face but anxiety in his heart.
2. Let us honour thee not so much with transitory praises as with our reverence and, if our powers permit us, with our emulation. That will be the true respect, that the true affection of thy nearest kin.
3. His soul too was penetrated with the desire of warlike renown, a sentiment unwelcome to an age which put a sinister construction on eminent merit and made glory as perilous as infamy.

C. (*a.*) Translate:—

sed ne relictis, Musa procax, iocis
Ceae retractes munera neniae:
mecum Dionaeo sub antro
quaere modos leviore plectro.

1. Account for the case of plectro.
2. Write a note on Ceae, Dionaeo.

(*b.*) Translate:—

latius regnes avidum domando
spiritum, quam si Libyam remotis
Gadibus iungas et uterque Poenus
serviat uni.

1. Account for the mood of regnes.
2. Write a note on Gadibus, uterque Poenus.

(*c.*) Translate:—

Ulla si iuris tibi peierati
poena, Barine, nocuisset unquam,
dente si nigro fieres vel uno
turpior ungui,
crederem.

1. Account for the case of ungui; the mood of crederem.
2. Explain the exact use of the tenses.

(*d.*) Translate:—

te Iovis impio
tutela Saturno refulgens
eripuit volucrisque fati
tardavit alas, cum populus frequens
laetum theatris ter crepuit sonum:
me truncus illapsus cerebro
sustulerat, nisi Faunus ictum
dextra levasset, Mercurialium
custos virorum. reddere victimas
aedemque votivam memento:
nos humilem feriemus agnam.

1. Account for the mood of sustulerat.
2. Write a note on te, Faunus, votivam.

D. (*a.*) Translate:—

est et fideli tuta silentio
merces: vetabo, qui Cereris sacrum
volgarit arcanae, sub isdem
sit trabibus fragilemve mecum
solvat phaselon; saepe Diespiter
neglectus incesto addidit integrum:
raro antecedentem scelestum
deseruit pede Poena claudo.

1. Account for the mood of solvat: the case of pede.

(*b.*) Translate:—

ut Proetum mulier perfida credulum
falsis impulerit criminibus, nimis
casto Bellerophonti
maturare necem, refert.

1. Write a mythological note.

(*c.*) Translate:—

immunis aram si tetigit manus
non sumptuosa blandior hostia,
mollivit aversos Penates
farre pio et saliente mica.

1. This stanza has been interpreted in two ways. Explain. Which interpretation do you prefer? Why?

(*d.*) Translate:—

non est meum, si mugiat Africis
malus procellis, ad miseras preces
decurrere et votis pacisci,
ne Cypriae Tyriaeque merces
addant avaro divitias mari:
tunc me biremis praesidio scaphae
tutum per Aegaeos tumultus
aura feret geminusque Pollux.

(*e.*) What metres does Horace use most frequently? Why are they so called? Point out examples in the passages set.

(*f.*) Horace describes himself as "Epicuri de grege porcum." Discuss the justice of the phrase.

FRENCH. (Time, 3 hours.)

(Les réponses doivent se faire en français.)

1. (*a.*) Traduisez:—

C'était un homme de cinquante ans qui avait *l'air préoccupé* et qui était bon. Voilà tout ce qu'on en pouvait dire. Grâce aux progrès rapides de cette industrie qu'il avait si admirablement remaniée, Montreuil-sur-Mer était devenu un centre d'affaires considérable...Les bénéfices du père Madeleine étaient tels que, dès la deuxième année, il avait pu bâtir une grande fabrique...Quiconque avait faim pouvait s'y présenter, et était sûr de trouver là de l'emploi et du pain...Une forte circulation échauffait tout et pénétrait partout. Le chômage et la misère

étaient inconnus. Il n'y avait pas de poche si obscure où il n'y *eût* un peu d'argent, pas de logis si pauvre où il n'y *eût* un peu de joie. Le père Madeleine employait tout le monde. Il n'exigeait qu'une chose: *Soyez honnête homme! Soyez honnête fille!* Comme nous l'avons dit, au milieu de cette activité, le père Madeleine faisait sa fortune; mais, *chose* assez singulière dans un simple homme de commerce, il ne paraissait point que ce *fût* là son principal soucis. Il semblait qu'il *songeât* beaucoup aux autres et peu à lui.

(*b.*) Expliquez les règles de syntaxe dont sont des exemples les expressions en italiques dans le passage précédent.

(*c.*) Racontez quelques incidents de la vie de Jean Valjean, montrant quels obstacles il ent à vaincre pour recouvrer sa place d'honnête homme dans la société;

ou,

racontez la mort de Jean Valjean.

2. (*a.*) Traduisez:—

Har. Lui avez-vous déclaré votre passion, et le dessein où vous étiez de l'épouser?

Clé. Sans doute; et même j'en avais fait à sa mère quelque peu d'ouverture.

Har. A-t-elle écouté, pour sa fille, votre proposition?

Clé. Oui, fort civilement.

Har. Et la fille correspond-elle fort à votre amour?

Clé. Si j'en dois croire les apparences, je me persuade, mon père, qu'elle a quelque bonté pour moi.

Har., bas, à part. Je suis bien aise d'avoir appris un tel secret; et voilà justement ce que je demandais. (*Haut.*) Or sus, mon fils, savez-vous ce qu'il y a? C'est qu'il faut songer, s'il vous plaît, à vous défaire de votre amour, à cesser toutes vos poursuites auprès d'une personne que je prétends pour moi, et à vous marier dans peu avec celle qu'on vous destine.

Clé. Oui, mon père; c'est ainsi que vous me jouez! Hé bien! puisque les choses en sont venues là, je vous déclare, moi, que je ne quitterai point la passion que j'ai pour Mariane; qu'il n'y a point d'extrémité où je ne m'abandonne pour vous disputer sa conquête; et que, si vous avez pour vous le consentement d'une mère, j'aurai d'autres secours, peut-être, qui combattront pour moi.

Har. Comment, pendard! tu as l'audace d'aller sur mes brisées?

Clé. C'est vous qui allez sur les miennes, et je suis le premier en date.

(*b.*) Traduisez, et expliquez, au besoin, les expressions suivantes:—

Il me tient le poignard sur la gorge; mauvaise herbe croît toujours; je sais tirer mon épingle du jeu; ils sont sur la litière; il a le diable au corps.

(*c.*) Montrez par quels moyens Molière rend le caractère de l'avare Harpagon odieux et ridicule;

ou,

que peut-on conclure quant à la vie de famille au XVIIe. siècle, aprés avoir lu l'Avare?

3. (*a.*) Traduisez:—

Le canon tirait sur eux à cartouche: mais le roi, qui se découvrait davantage, était le plus exposé: à quelques pas derrière était le comte Schwerin, qui commandait la tranchée; le comte Posse, capitaine aux gardes, et un aide de camp, nommé Kulbert [Kaulbars], recevaient des ordres de lui. Siquier et Mégret virent dans ce moment le roi de Suède qui tombait sur le parapet en poussant un grand soupir; ils s'approchèrent, il était déjà mort: une balle pesant une demi-livre l'avait atteint à la tempe droite, et avait fait un trou dans lequel on pouvait enfoncer trois doigts; sa tête était renversée sur le parapet, l'œil gauche était enfoncé, et le droit entièrement hors de son orbite. L'instant de sa blessure avait été celui de sa mort; cependant il avait eu la force, en expirant d'une manière si subite, de mettre, par un mouvement naturel, la main sur la garde de son épée, et était encore dans cette attitude. A ce spectacle, Mégret, homme singulier et indifférent, ne dit autre chose sinon: "Voilà la pièce finie, allons souper." Siquier, court sur-le-champ avertir le comte Schwerin. Ils résolurent

ensemble de dérober la connaissance de cette mort aux soldats jusqu'à ce que le prince de Hesse en pût être informé. On enveloppa le corps d'un manteau gris: Siquier mit sa perruque et son chapeau sur la tête du roi; en cet état on transporta Charles, sous le nom du capitaine Carlsberg, au travers des troupes, qui voyaient passer leur roi mort sans se douter que ce fût lui.

(*b.*) Décrivez quelques incidents de la carrière de Charles XII. qui mettent en lumière le caractère de ce roi.

(*c.*) Put into French:—

The moment the king found himself taken prisoner, the violence of his temper, and the fury which such a long and desperate fight had naturally inspired, gave place at once to a mild and gentle behaviour. He dropped not a word of impatience, nor was an angry look to be seen in his face. He regarded the janizaries with a smiling countenance; and they carried him off with an indignation mixed with respect.

4. Traduisez:—

A soldier in the army of Charles XII. was condemned to death by the king, because he had stolen a chicken from a peasant. The condemned man was very angry at this sentence, and in a voice full of rage, accused the king of having also committed a theft, and declared that as he had taken a kingdom instead of merely a chicken, he was much more guilty. The king was very much confused at first by the soldier's accusation, but quietly explained to him that there was a difference between the two cases, inasmuch as he had taken possession of Poland for the sake of his people, while the soldier had taken the chicken from the peasant only for his own use.

GERMAN. (Time, 3 hours.)

1. (*a.*) Ins Engliſche zu überſetzen:—

Der König kam, mit ihm das ganze große Hauptquartier, als ich in Lagny ganz allein vor dem kleinen Hotel Sybille ſaß. Geheimrat Bork, der Korreſpondenz-Sekretär des Königs, an deſſen Wagen ich trat, ſagte mir: „Es geht nach Ferrières! Jules Favre ſucht als Vermittler den König!" So hatte man mir in der Etappe ſchon geſagt; ich ſchloß mich alſo an. Bismarck ritt, den Baron von Keudell zur Seite, auf der hohen Wegesböſchung und ſchaute auf die Straße zurück, als erwarte er jemand. Zu ihm tretend, richtete ich die Frage an ihn, ob man Wichtiges erwarte. Er ſchüttelte den Kopf und reichte mir die Hand, „Will nur von hier oben unſre Kolonne überſchauen!" Kaum hatte er's geſagt, da fuhr ſchon ein geſchloſſener Wagen mit Herren in weißer Krawatte vorüber. Ich erkannte Jules Favre, den Bismarck ſich nach Ferrières, dem Muſtergute Rothſchilds, beſtellt hatte. Alſo wieder eine Friedensſchalmei!

(*b.*) Translate:—

1. He returned this week from Africa.
2. You must make haste, if you wish to see it.
3. You may be sure that he is well informed.
4. France declared war against Germany.
5. Standing at the window I saw how the crowd assembled in the square.
6. We were all in that solemn moment mindful of those that are nearest to us.

7. Heaven knows who of all those that are now going out to war will return.
8. Many a mother stifled her tears.
9. Nothing can efface the remembrance of so solemn a moment from the memory of him who has gone through it.
10. We accompanied them to the station.

(*c.*) Put into German :—

On the next morning our outposts occupied the scene of the battle. Not a Frenchman let himself be seen on the walls. There was a truce for the burial of the dead. The second army had already crossed the Moselle near Pont-à-Mousson. It was attacked on the 16th at Vionville, and we drove the enemy to Rezonville. General von Wedell had to yield to superior strength at Mars-la-Tour, but the Dragoon Guards made a frightful attack on the enemy's infantry, and at last the victory was won.

2. (*a.*) Überſetzen Sie ins Engliſche :—

Die aufgeregte Geſellſchaft wurde durch dieſen Zwiſchenfall noch aufgeregter. Die Damen eilten zu der Ohnmächtigen, es wurde nach Waſſer, nach Eſſig gerufen, und als alle in der höchſten Beſtürzung kopflos durch einander liefen, that es auf einmal drunten im Garten einen fürchterlichen Knall, und eine wahre Kanonade von weißen, roten und blauen Feuerſtrahlen praſſelte in die Luft, während das verborgene Stadtmuſikantencorps den Tannhäuſermarſch anſtimmte.

Die Verwirrung im Geſellſchaftszimmer war fürchterlich. Während die Frauen um Marie beſchäftigt waren, ſuchten die Männer ihre Hüte und drängten dem Ausgang zu. Unter den Erſten, die das geſtörte Feſt verließen, war die Eckart'ſche Familie ; der letzte Gaſt auf dem Schauplatz war der Major, und dieſem war es vorbehalten, den ahnungsloſen Kanzleirat, der, froh über das gelungene Feuerwerk, aus dem Garten zurückkam, um nunmehr die Verlobung zu proklamieren, ſchonungsvoll mitzuteilen, was geſchehen war.

(*b.*) Render freely into English, and comment if necessary :—

Du wirſt Augen machen ; der blanc Montag ; Galgenhumor ; auf den Händen tragen ; es geht mir im Kopfe herum ; einen in den Harniſch bringen ; Ziegenböcke malen ſie an die Wandtafel ; ſein ſchöner Henriquatre ; Fuchſtaufe ; Menſur.

(*c.*) Translate :—

The son, Dr. Eckart, is a well-built young man, of about twenty-five years, with a fresh complexion. He has not long been a teacher and yet he stoops somewhat. His custom is to make his parents a visit and then to withdraw to his room. This time, as he enters the room, his father calls out in a loud voice, "Good morning, Dr. Billygoat." The son's lips tremble when he hears the nickname the silly schoolboys have given him. "What do you mean, father?" he asks. "Oh," replies his father, "I only wanted to see if you were sensible enough not to get annoyed at that name. People have always made light of tailors, and I confess that I often cried about it when I was a young fellow. Sometimes, too, I even fought, but later I became wiser."

3. (*a.*) Ins Englische zu übersetzen :—

Marsland. Aber Herr Robert—das hätte schlecht ablaufen können.

Lothair. Ich bitte tausendmal um Vergebung—ich ging im Park spazieren—als ich ein Pferd auf mich zukommen sah—das augenscheinlich seinen Reiter abgeworfen hatte—ich konnte der Versuchung nicht widerstehen es zu besteigen, es ging so gut, daß ich es wagte, einige kleine Hindernisse zu nehmen—das ist alles.

Eva. Sie haben Edith sehr erschreckt.

Lothair. Hätte ich davon eine Ahnung gehabt—würde ich nicht so übermütig gewesen sein. Verzeihen Sie mir.

Edith. Ich glaubte nicht, daß Sie reiten könnten.

Macdonald. Wo haben Sie das gelernt, junger Freund—wie, was ?—

Lothair. O—ich—ich hatte einen Onkel, der war Pferdehändler.

Macdonald. Sie haben kuriose Onkels.

Lothair. Ja—die habe ich, aber dafür kann man doch nicht.

Harry (leise zu Lothair). Das war unbesonnen, Lothair.

Lothair (erfreut). Du—ich glaube, ich fange an zu toben.

Harry. Wo ist Gibson ?

Lothair. Ich sah seine Kleider wie ein Paar Windmühlenflügel in der Luft—weiter weiß ich nichts.

Harry (lachend). O weh !—

(*b.*) Übertragen Sie folgende Ausdrücke ins Englische :—

Ich rede ihm ins Gewissen ; bis das Halali im Schuldgefängnis stattfindet ; soll das getobt sein ? lassen Sie die Heulerei, alte Schraube ; Schulden ? er steckt bis daher d'rin ; die alte ist ganz verdreht ; wären wir ihn nur erst los ; da habe ich mir etwas Schönes eingebrockt ; da liegt der Hund begraben ; ein paar ordentliche Bären aufbinden.

(*c.*) Schreiben Sie einen Aufsatz von etwa 250 Wörtern über den Gegenstand von Mosers Lustspiel.

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

REPORT

OF THE

MINISTER OF PUBLIC WORKS

OF THE PROVINCE OF

BRITISH COLUMBIA

FOR THE

FISCAL YEAR 1916-1917

PRINTED BY
AUTHORITY OF THE LEGISLATIVE ASSEMBLY.

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

To His Honour Sir Frank Stillman Barnard, K.C.M.G.

Lieutenant-Governor of the Province of British Columbia.

May it please Your Honour:

Herewith I beg respectfully to submit the Annual Report of my Department for the fiscal year ending 31st March, 1917, in compliance with the provisions of the "Public Works Act."

J. H. KING,

Minister of Public Works.

Works Department,

Victoria, B.C., January, 1918.

PUBLIC WORKS REPORT.

ROAD MACHINERY AND PLANT, 1916-17.

District.	Tents.	Steel Rope.	Pile-drivers.	Pile-driver Hammers.	Forges.	Winches.	Horses.	Wagons.	Carts.	Ploughs.	Scrapers.	Graders.	Rock-crushers.	Rock-elevators.	Horse Road-rollers.	Steam Road-rollers.	Gasolene Road-rollers.	Motor-trucks.	Motors.	Steam-engines.	Gasolene-engines.	Traction-engines.	Motor-cars (R.S.).	Donkey Gasolene-hoists.	Donkey Steam-hoists.	Sprinklers.	Water-wagons.	Water-tanks.	Pumps.	Anvils.
		Feet.																												
Alberni	39	1,700	....	....	7	2	4	4	4	10	21	4	....	....	2	....	....	....	....	....	....	....	1	....	1	....	....	....	....	9
Atlin	14	200	1	....	2	....	....	1	1	2	5	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	3
Cariboo, North	26	4,400	2	....	4	....	14	4	....	7	14	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
" Central and South	82	400 & 2 cables	....	....	7	....	16	18	2	22	24	11	....	....	1	....	....	1	....	....	....	1	....	....	....	....	....	....	....	7
Chilliwack	2	600	1	1	4	1	....	10	....	2	2	3	1	1	....	....	....	....	2	...	....	....	1	....	1	....	....	....	....	2
Columbia	56	.....	2	....	8	....	2	11	6	32	61	9	....	....	2	....	....	....	....	....	....	....	1	....	....	....	....	....	....	11
Comox (Strathcona Park)	19	.....	....	....	1	....	....	2	6	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
" North	15	1,300	2	1	5	2	....	1	....	....	2	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	2
" South	5	310	1	....	2	1	....	....	1	4	4	3	....	....	1	....	....	1	....	....	....	....	1	....	1	....	....	....	....	1
Cowichan	11	1,000	2	2	2	2	....	7	2	9	14	2	....	....	1	....	1	....	....	....	....	....	1	....	....	....	....	....	....	5
Cranbrook	22	800	4	....	9	3	....	3	1	14	33	8	....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	11
Delta	14	700	1	1	....	....	5	4	3	13	28	5	....	....	....	....	1	....	....	....	....	....	1	....	1	....	....	1	1	1
Dewdney	36	4,100	2	3*	5	....	7†	....	12	13	31	3	1	1	1	1	....	....	....	2	1	....	1	....	1	1	....	....	....	5
Esquimalt	34	300	....	....	10	....	....	12	....	13	6	6	1	1	....	....	1	....	....	....	1	1	2	....	....	....	1	....	....	8
Fernie	31	300	2	....	3	1	....	....	....	5	8	5	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	....	4
Grand Forks	7	450	1	2	2	....	....	2	....	5	11	2	1	1	1	....	1	....	....	1	1‡	....	1	....	1	....	....	....	1	1
Greenwood	33	.....	....	....	4	....	....	1	8§	17	45	3	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Islands	3	300	1	1	2	....	....	....	....	7	19	2	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	3
Kamloops	20	100 & 1 piece	2	1	10	....	17	11	....	9	19	8	1	....	....	....	1	....	....	1	1	....	1	....	....	....	....	....	....	8
Kaslo	11	300 & 1 piece	2	....	3	....	....	....	3	10	35	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	..	....	....	10
Lillooet, East	45	several hun. ft.	....	....	6	1	13	....	....	....	....	....	1	1	....	1	....	1	....	3	1	....	1	....	1	....	....	....	....	sev.
" West	3	200 *et al.*	1	....	3	....	3	5	2	6	7	3	....	....	....	..	....	....	....	....	....	....	....	....	....	...	....	....	....	....
Nanaimo City	4	40	1	....	2	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
Newcastle	8	.....	....	....	2	....	....	....	....	4	5	2	....	....	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	2
Okanagan	24	1,845	4	....	14	6	....	6	....	61	61	21	1	1	1	1	....	....	....	1	1	1	1	1	2	....	....	2	1	12
Revelstoke	32	.....	1	....	4	...	.	3	....	10	30	3	....	....	1	....	1	....	....	....	....	....	1	1	1	....	....	....	....	8
Richmond	18	2,575	1	....	8	....	1	5	....	9	17	4	....	....	....	1	1	1‖	....	....	1	1	1	....	2	....	....	....	....	6
Similkameen	31	1,738	1	....	16	....	....	....	9	32	111	14	....	....	2	....	....	1	....	....	....	....	1	....	....	....	....	....	....	23
Skeena, Bella Coola (no report).																														
" Upper	9	300	....	....	....	....	4	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
" Lower	16	900	...	...	5	....	3	....	.	2	4	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4
" Portland Canal	12	540	1	1	6	....	....	....	1	1	9	....	....	....	....	....	....	....	....	....	....	....	....	.	1	....	....	....	....	3
" Interior, North	12	520	1	....	....	1	12	6	1	8	10	3	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
" " South	18	200 & 3 pieces	....	....	2	....	12	6	1	3	12	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2
" Queen Charlotte	22	850	....	....	5	...	2	2	....	3	5	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
Slocan	11	9 pieces	1	....	4	....	....	....	1	5	20	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4
Yale	30	300	....	3	10	....	15	16	2	20	18	12	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	13
Ymir	36	1,300	1	1	11	....	....	2	10	15	38	3	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	10

* Pile-driver and 3 hammers at Essondale. † Seven horses were loaned to Provincial Mental Hospital, Essondale. ‡ Compressor. § Four old carts. ‖ Foden steam-wagon.

BRIDGES.

ALBERNI DISTRICT.

Brennan Creek (Lake Shore) Bridge: Redecked and new handrail.
Best's-Kitsuksus Creek Bridge: Redecked and new handrail.
Cape Scott (Nebraska Road) No. 1: New bridge.
Cape Scott (Nebraska Road) No. 2: New bridge.
China Creek: New bridge.
Clarke's Road Bridge: Renewed deckings and handrails.
Coleman: New bridge.
Comodor (Texada) Bridge: Sundry repairs.
McLeod Lake (Texada) Bridge: Sundry repairs.
Upper Englishman's River: New bridge.
French Creek (Grafton): New bridge.
Four-mile Creek No. 2 Bridge: New bridge.
Four-mile Creek No. 1 Bridge: New bridge.
Four-mile Creek No. 3 Bridge: New bridge; not finished.
McCoy Creek Bridge: Redecked; 3 new stringers and new handrail.
McLeod Lake (Texada) Bridge: Sundry repairs.
Sundry buildings (Texada): Sundry repairs.
San Josef Valley, Nos. 103, 104, 105, 106, and 107: New bridges.

ATLIN DISTRICT.

Big Horn River Bridge: Repairs.
Indian River Bridge: Repairs.
Klehini: 2 new bridges.
Little Lake Outlet Bridge: Repairs.
Miner's Ditch Bridge: Repairs.
Moose Arm Portage Bridge: Repairs.
Nakina Bridge: Repairs.
Slate Creek Bridge: Repairs.
Spruce Creek Nos. 1, 2, 3, and 4 Bridges: Repairs.

CARIBOO DISTRICT.

Nechako: New bridge.
Vanderhoof (Nechako River): New bridge.
Salmon River: New bridge.
Necoslie: New bridge.
Stellako: New bridge.
Dore River: New bridge.
Nos. 1, 2, 3, and 4, Quesnel-Fraser Lake Road Bridges: Re-covered.
Curve Creek: New bridge.
McLennan: New bridge.

Peace River Division.

Rolla: New bridge.
Dawson Creek (4 Miles from Mouth): New bridge.
Dawson Creek (at Tremblay's): New bridge.
Morris Creek: New bridge.
No. 2 (8 Miles from Hudson Hope): New bridge.
No. 1, Dewar's Landing:
No. 2, Fort St. John:

Chilliwack District.

Chilliwack River Road Bridge: Repairs.
Columbia Valley Road Bridge: New stringers, mud-sills, and re-covered.
Matsqui Bridge: Re-covered.
Mount Lehman: New bridge.
Vedder Bridge: Repairs.
White: New bridge.
Yale Road (West): New bridge.

Columbia District.

No. 3 Creek (3 bridges): Repaired; 3 new bridges.
McDonald Creek: New bridges, 16 feet; 2, 33 feet.
Tetley Creek: New bridge.
Spring Creek: New bridge.
Clearwater Creek: New bridge.
Banff-Windermere: New bridge.
Pinehurst Bridge: Repaired, new stringers, and re-covered.
De Grozie Bridge: Repaired.
McKeeman Bridge: Cribbed and general repairs.
North Vermilion Bridge: Filled with rock and approaches gravelled.
South Vermilion Bridge: Repaired.
Dutch Creek Trail (North Fork): New bridge.
Boulder Creek: New bridge.
Dutch Creek: Building dam and mattress and bridge repaired.
Spillimacheen (North Fork) Bridge: New main span and new covering.
Larimer Creek Bridge: Generally repaired.
Heffner's Landing Bridge: Repairs.
Bugaboo Bridge: Repairs.
Kootenay Bridge: Approach repairs.
Beard Creek: New bridge.
Spillimacheen Bridge: Repairs.
Sinclair Bridge: Repairs.
Horse Creek: New bridge.
Canal Flat: New bridge.
Fifty-two-mile Post: New bridge.

A considerable amount was expended in repairing approaches, etc., to several bridges, due to damage done by high water. A large amount was expended in protecting Horse Creek Bridge, Washout Creek Bridge, Toby Creek Bridge, Moberly Bridge, and Kicking Horse Bridge.

Comox District.

Brooklyn Bridge: Repairs.
Calhoun's Bridge: Repairs.
China Creek Bridge: Renewed stringers, re-covered, and new handrail.
Crescent Bay Bridge: Repairs.
Curran's Bridge: Repairs.
Fridlay Creek Bridge: Repairs.
Ford's (Hornby Island): New bridge.
Garven Creek Bridge: Repairs.
Hart's Creek: New bridge.
Hodgson Cross Road Bridge: Repairs.
Howe's (Hornby Island): New bridge.
Kelland Bridge Repairs.
Little River Bridge: Repairs.
Lund-Powell River Road: New bridge.

Nahwitte River Bridge: New piles; cribbed centre pier with 2 x 12 planking; boom to protect pier from floating timber; 195 with slide made of ¾-inch iron 3 feet long to allow for rise and fall of water.

Powell River Bridge: Repairs and filling rock around middle piers.
Power-house Bridge: Repairs.
Puntledge River No. 1 Bridge: Renewing planking and stringers; new handrail.
Puntledge River No. 2 Bridge: Repairs.
Rennison's Bridge: Replanking, new stringers, and new handrail.
Salmon River: Widening and renewing 8 bridges.
Sandhills Bridge: Repairs.
Shelter Point Bridge: Repairs.
Shushartie River: New bridge.
Smith's Bridge: Raising and blocking up south end and filling in; renewing stringers and planking.
Stewart's Bridge: Repairs.
Swansky Bridge: Repairs.
Thames River: New bridge.
Trent Rivers Bridge: Repairs.
Tsolum River Bridge: Repairs.
Victoria-Campbell River No. 79A Bridge: Repairs.
Victoria-Campbell River No. 79F Bridge: Repairs.

COWICHAN DISTRICT.

Glenora Bridge: Raised; crib repaired.
Duncan Wagon Bridge: Braced and lined up; 2 new abutments; bridge moved 28 feet north and lowered 20 inches; handrailing.
Twin Bridges: Raised and cribbed ends and gravelled approaches.
Cowichan Station Bridge: Reconstruction.
Evans Bridge: New flooring.
Barkley Bridge: New flooring and fence.
Riverside Bridge: New construction.
Cheewat-Clo-oose Bridge: New piers and two new spans.

CRANBROOK DISTRICT.

Mission: New bridge (under construction).
Westport (Large), Bridge: Protected during high water; piers refilled with rock.
St. Mary Lake Bridge: Repaired and protected during high water.
Wycliffe Bridge: Built breakwater 4 feet 6 inches higher; filled with 188 loads of rock.
St. Mary River Bridge (between Mission and Wycliffe): Protected during high water.
Old Tower Bridge: Put in 4 new stringers from bridge over wash-out to bank; hewed flooring.
Yahk Bridge: Repaired and protected during high water.
Fort Steele Bridge: Protected during high water; centre pier refilled with rock.
Wasa Bridge: Protected during high water.
Newgate Bridge: Protected during high water; piers refilled with rock.
Kimberley Bridge: Rebuilt; put in 62-foot trestle in place of 25-foot one washed out.
Marysville Bridge: Repaired.
Matthew Creek Bridge: Removed 50-foot A span up-stream; used old timber and flooring; built approach 90 feet.
Skookumchuck Bridge: 1 span from Mission Bridge erected; pier and crib loaded with rock.
Sawmill Bridge: Built 2 A spans 35 feet each to replace 30-foot span washed away.
Manchester Bridge: Put in 5 new stringers, 20 feet each, and hewed covering.
Wardner Bridge: Protected during high water.
Kelly Slough Bridge: Protected during high water.

DELTA DISTRICT.

Anderson Creek: New bridge.
Canoe Pass Bridge: Repairs.
Coughlan Bridge: Repairs.
Dry Gulch: New bridge.

Hope Bridge: Repairs.
Jenkins Bridge: Repairs.
Livingstone: New bridge.
Nos. 2, 3, 4, 5, and 6 Bridges: Planked and repaired.
Pacific Highway Bridge: Repairs.
Town Line No. 4 Bridge: New work.
Warwhoop Trail Bridge: New work.

Dewdney District.

Carter's Bridge: Repairs.
Conley Bridge: Repairs.
Dewdney Slough Bridge: Repairs.
Dewdney Trunk Road: 2 new bridges.
Gifford No. 1 Bridge: Replaced.
Gifford No. 2 Bridge: Replaced.
Gifford No. 3 Bridge: Filled in.
Hazelwood Street: New bridge.
Henderson Bridge: Repairs.
Morrison: New bridge (half-cost charged to dyke maintenance).
McDonald (Pitt Meadows): 3 new bridges.
Sproule Bridge: Repairs.
Stave Falls Bridge: New stringers, planking, handrail, etc.
Thompson's Bridge: Repairs.
Upper Pitt River Bridge:
Yennadon Bridge: Repairs to bridge approach.

Esquimalt District.

No. 3, Finlayson Arm Bridge: Bridge burnt out, renewed; filling at east end, 16 x 4 x 5 feet; filling at west end, 10 x 14 x 8 feet.
Parson's Bridge: Redecked.
No. 1, Sooke Road Bridge: 1 new stringer and 8 new planks.
Fitzgerald: New bridge built.
Helmcken Bridge: Repaired deck and spiked loose planks.
Sooke River Road Bridge: Moved bridge 12 feet; raised same 2 feet; new railing.
Otter Point Bridge: Filled in and culvert built 12 x 18 feet long; raised the road 1 foot.
No. 3, Sooke Road Bridge: Removed old bridge; replaced same by culvert 8 x 16 x 3 feet; road raised 1½ feet and filled.
Phillips Road Bridge: Sill deepened; jacked up bridge and fitted longer piles; bolted on sway-braces.
Happy Valley Road Bridge: 26 new planks in deck.
Luxton Road: New bridge.
Hughes Road: New bridge.
Gordon River Bridge: Cut and trimmed 4,000 feet of piles; hauled same from woods with donkey-engine.
Coal Creek Bridge (Renfrew District): 1 new bent and repairs.

Fernie District.

Coal Creek Bridge: Repairs.
Elkmouth No. 9 Bridge: Filling in rock round piers.
Elko Bridge: Repairs.
Elk River No. 4 Bridge: Repairs.
Gateway Ferry Bridge: Repairs.
Hosmer No. 2: New bridge.
McDougall's No. 3 Bridge: Driving piles and levelling up bridge.
Sand Creek Bridge: Repairs.
Waldo Bridge: New cable, sinking anchors, brazing bents, planking, and fixing railings.
West Fernie No. 5 Bridge: Driving piles and levelling bridge.

GRAND FORKS DISTRICT.

Carson Bridge: Redecked.
Cascade Bridge: Removed logs and driftwood.
East Fork Bridge: Temporary bent to support bridge.
Gilpin Bridge: 1 40-foot king span.

GREENWOOD DISTRICT.

Blythe Bridge: Repairs; 2 extra sets of braces.
White Cabin Bridge: Construction; 100-foot span and 64 feet of graded approach to each side.
Repairs to sundry other bridges.

ISLANDS DISTRICT.

Deep Bay Bridge: Repairs.
Gabriola Bridge: Repairs.
Horton Bay Bridge (Mayne Island): Repairs.
Mount Newton Bridge (North Saanich): Repairs.
New Road: New bridge.
North Saanich: Repairs to sundry bridges.
South End Bridge (South Gabriola): Repairs.
Walker's Hook: New bridge.

KAMLOOPS DISTRICT.

Barriere Bridge: Filled 3 piers with rock; riprapped outside of centre pier; amount of rock used, 1,803 yards angular rock.
Barriere Bridge: Centre pier, 11 feet high, filled with rock.
Boulder Bridge: Replanked in 1914.
Cedar Gulch Bridge: Requires painting.
Eackens Bridge: 1 pier, 30 x 16 x 8 feet, filled with rock, also sheer-cribbed.
Edmonds Bridge: Cribbed 53 feet high, double bents.
Kamloops (East) Bridge: To be replanked.
Kinnear Bridge: Being rebuilt.
Mad River Bridge: Ends cribbed and necessary guard and handrail.
Manson Creek Bridge: Cribbed both ends of bridge 5 feet high.
Rattlesnake Bridge: Covered with round timbers, adzed for wheel-tracks.
Rose Hill No. 1 Bridge: Double bents.
Sorrento Bridge: 3 sets of fir stringers.
Unnamed Bridge: Cribbed 8 feet on each end, 8 feet high.

KASLO DISTRICT.

Woodbury Creek Bridge: General repairs; placing supports under bridge.
Tenderfoot Creek Bridge: Placing supports.
Cascade Creek Bridge: Stringers 56 feet; crib-work 10 feet high; front and back wings 6-18 feet long; height of bridge 12 feet from bottom; iron and freight.
Creston-Porthill Road Bridge: Replacing bridge.
Reclamation Slough Bridge: Removing driftwood; general repairs.
Lynchville Bridge: Clearing channels, building foot-bridge, supplying material, excavating, and getting out timber; constructing 54-foot bridge, hewn stringers on piles, 1 abutment 4 feet high; length over all 150 feet.
Slide Bridge: General repairs.
Whitewater Bridges: 33 feet of R.L.S., guard-rail, cedar covering, 12-foot abutments; filling approaches.
Goat River Bridge: General repairs; material; removing jams.
Summit Creek Bridge: Repairs and protection-work.
Grey Creek Bridge: Span 30 feet R.L.S.; south approach 49 x 17 x 4, north approach 36 x 17 x 4; rock-filled.

Cariboo Creek Bridge: Building bridge 180 x 14 R.L.S., 8-foot abutments; material.

Lake Creek Bridge: 78 feet R.L.S., cedar puncheon; abutments 16 x 8, 16 x 4; 1 pier 16 x 10, 15 feet high.

Unnamed Bridge: 20 x 14 R.L.S., cedar puncheon; cribbing at both ends 4 feet high.

Canning Bridge: Removing jams.

Hammil Creek: Material; repairing abutments; building 56-foot bridge, hewn stringers; north abutment 24 x 16.

Wakefield Bridge: Rods and casting; freight on rods and castings; repairing rods.

Montezuma Bridge: Shovelling snow.

Duck Creek Bridge: Building bridge 42 feet long and 4 feet high; replacing deck and bent; putting on cover and rail; material.

Grady Bridge: Jacking up; repairing deck and rail.

Lizard Bridge: Fixing rail; material.

School Bridge: Jacking up bents and fixing rails.

Bridges generally: General repairs; placing supports; material; shovelling snow.

Lillooet District.

Eastern Division.

Campbell's Bridge: Removing log-jam and guarding.

School-house Bridge: Removing log-jam and guarding.

Fifty-nine-mile Creek Bridge: Repairing covering.

Canim Lake Bridge: Bridge, 64 x 18 x 14 feet, repaired; new stringers; new approaches; new railing; new covering of heavy hewn timber 5 inches thick, hewn on 4 sides; built a rock and brush mattress around north abutment; hauled 30 cubic yards rock.

Nine-mile-Fisset's Bridge: Put in new stringers, some new planks, and new railing.

Nine-mile-Willowdale Bridge: Put in new stringers and part new covering; new railing.

Sawmill Bridge: Put in new stringers; some new covering and railing.

Upper Dog Creek Bridge: Repairing bridge.

Mound-Loon Lake Bridge: Bridge over Bonaparte at old sawmill-site repaired.

Canoe Creek Bridge: 4 new stringers and new abutments; 158 feet of round peeled timber.

Big Bar Creek Bridge: Re-covering with hewn covering; 33 pieces 14 inches x 23 feet.

Sixty-one-mile Creek Bridge: Repaired covering; 2 new planks.

Clinton Creek Bridge: Cutting out ice; raising covering and fencing.

Government Creek Bridge: Cutting out ice.

Clinton Creek Bridge: Built 22 x 18 x 8 feet, rock approaches.

Eagle Creek Bridge: Built bridge 31 x 16 x 8 feet, 3 miles from Canim Lake Road.

Bridge over Unnamed Creek, Canim Lake Road: Built bridge 34 x 16 x 12 feet; two new abutments 14 x 5 feet.

Bridge over Gulch, Canim Lake Road: 31 x 14 x 7 feet; covered with peeled logs.

Bridge over Dry Gulch, Big Bar-Big Bar Mountain Road: 18 x 18 x 13 feet high; 2 abutments 5 logs high, 18 feet wide, tied into bank with 12-foot logs; 4 stringers; flooring 18 x 18 x 6 inches peeled logs.

Western Division.

Bridge River (Mouth of) Bridge: Guarding bridge from logs at extreme high water.

Big Creek Bridge: Repaired covering.

Bridge River Forks Bridge: Guarding and removing logs.

Gun Creek Bridge: Guarding and removing logs.

Hanceville Bridge: Guarding and removing logs.

Lillooet Suspension Bridge: Guarding and cleaning.

Seton Creek No. 1 Bridge: Guarding and removing logs.

Seton Creek No. 2 Bridge: Guarding and removing logs.

South Fork Bridge: Guarding and removing logs.

Station Bridge: Guarding and removing logs.

Tyaxon Bridge: Guarding and removing logs.

Upper Bridge River Bridge: Guarding and removing logs.
Vedan or Lower Chilcotin Bridge: Guarding and repairing covering.
Ward's Ferry Bridge: Guarding and removing logs.
Riley Creek Bridge: Repairing abutments; renewing stringers and covering.
Bridges on Watson Bar Creek: No. 1, 2 new abutments and covering; No. 2, new stringers 30 feet x 14 inches; No. 3, new covering.
Bridge over Creek at China Ranch: Put in new stringers and repaired covering.
Alexandria Creek Bridge: Rebuilt; old bridge buried 12 feet deep through bursting of dam and high water; old bridge 40-foot span; now reduced to about 30 x 16 feet.
Cedar Creek Bridge: Repaired and rebuilt after big wash-out; 1 span 25 x 16 feet.
Bridge over Dry Gulch, Churn Creek-Hanceville Road: Built 45 x 14 x 17 feet. Timber used, 34 pieces 1 x 1 x 12 feet—408 feet; 23 pieces 1 x 1 x 14 feet—322 feet; 5 pieces 1½ x 1 x 26 feet—195 feet. Government lumber used from mill-site, Hanceville, 1,400 feet x 2 inches. This bridge is on Hanceville Hill diversion.
Hell Creek: Built new bridge 32 x 22 x 5 feet wide; this bridge is 22 feet high; timber used in bridge 960 feet peeled logs, and 925 feet peeled logs for cribs.
Spider Creek: Built new bridge; 1 bent 35 x 12 x 10 feet peeled logs; 3 stringers.

NANAIMO DISTRICT.

Chase River Bridge: Replanking.
Nanaimo River Bridge: Trussing up.

NEWCASTLE DISTRICT.

Bush Creek Bridge: Replanking and repairing railing.
Davis Bridge: 5 new bents and tarring sills and posts.
First Creek Bridge: Repairs (planking and handrail).
Morrison's No. 2 Bridge: 2 new abutments, 2 mud-sills, and 2 new posts.
Morrison's No. 3 Bridge: Jacked up and put in mud-sills under each bent.
Old South Wellington Bridge: Repairs.

OKANAGAN DISTRICT.

Kaiser's Bridge: Re-covered and general repairs.
Miller's Bridge: Protection during flood.
Grindrod Bridge: Protection during high water.
Enderby Bridge: Protection during high water.
Fortune Bridge: General repairs.
Fortune Bridge (proposed new location): Piles purchased.
Kingfisher Bridge: Keeping bridge clear during high water and general repairs.
Finlaison's Bridge: Building additions to piers for protection.
Warner's Bridge: General repairs.
Lawrence Bridge: General repairs.
Sigalet Bridge: General repairs.
Unnamed Bridge: General repairs.
Thomkinson's Bridge: General repairs.
No. 3, Naramata Section Bridge: General repairs.
Naramata Road Bridge: General repairs.
No. 5, Deep Creek Bridge: Renewed.
No. 5, Belgo-Canadian Bridge: General repairs.
Dry Creek No. 24 Bridge: General repairs.
K.L.O. Nos. 1, 2, 3, and 5 Bridges: General repairs.
Westbank No. 12 Bridge: General repairs.

REVELSTOKE DISTRICT.

Beaton Bridge: General repairs and filling in approaches.
Beatrice Trail Bridge: Rebuilt.
Big Mouth Bridge: Repairs.

Bowie-Solsqua Trestle Bridge: Trestle built and approaches filled in.
Camborne Canyon Bridge: Repairs.
Camp Creek Bridge: Repairs.
Carnes Creek Bridge: Repairs.
Clanwilliam-Sicamous Bridge: Repairs.
Columbia River Bridge: Taking soundings; watching bridge in month of January; clearing log-jams.
Columbia River (North) Bridge: Building brush mattress and loading same with rock.
Columbia River (South): New bridges over sloughs.
Columbia River (West) Bridge: Repairs.
Craigellachie Bridge: Planking.
Craigellachie-Taft Bridge: Building trestle and filling in approach.
Cranberry Creek Bridge: Repairs; removing driftwood.
Crawford Creek Bridge: Repairs.
Crazy Creek: New bridge.
Death Rapids: New bridge.
Deep Creek Bridge: Repairs.
Downie Creek Bridge: Repairs.
Eagle River Bridge: Repairs.
Eight-mile Creek Bridge: Repairs.
Fish River Trail: New bridge.
Fish River (at Camborne) Bridge: Repairs.
Fish River (at Mammoth) Bridge: Repairs.
Five-mile Branch Roads: New bridge.
Galena Bay Bridge: Repairs.
Goldfields Bridge: Repairs.
Goldstream Bridge: Repairs.
Greely Creek Bridge: Repairs.
Illecillewaet River (Lower) Bridge: Repairs.
Illecillewaet River (Upper) Bridge: Building crib and protection-work.
Illecillewaet (East) Bridge: Repairs.
Laforme Creek: New bridge.
Landslide Trestle Bridge: Repairs.
Laurie Bridge: Repairs.
Lonzo Bridge: Repairs.
Mammoth Bridge: Repairs.
Menhinick Creek Bridge: Repairs.
Mica Bridge: Repairs.
Montana Slough Bridge: Repairs.
North Fork Bridge: Repairs.
Old Gaol and Power-house Bridge: Repairs.
Pool Creek: New bridge.
Power-house Bridge: Repairs.
Revelstoke Roads (East): 2 new trestle bridges.
Table Creek Bridge: Repairs.
Salmon River Bridge: Repairs.
Six-mile Branch Road: New bridge.
Solsqua-Bowie Bridge: Building trestle.
Taft Bridge: Repairs.

Richmond District.

Evans Creek Bridge: Redecked 380 x 14 feet; guard-rail and fence 760 feet.
Judd's Bridge: Replaced handrail.
Upper Squamish Bridge: Scored and hewed 9,216 feet B.M. of 12 x 12 timber; cribbed 52 feet around No. 1 pier 8 feet high, 1 foot wide; put in 4 cross-timbers 12 x 12 x 14 feet; drilled, blasted, and filled in 137 cubic yards rock.
Bridge on Road at Half Moon Bay: 80 feet long.

Bridge over Wakefield Creek: 50 x 14 feet.
Bridge on Cemetery Road: 1 bent, 4 stringers; total length 70 feet.
Bridge on Cemetery Road: 1 bent, 4 stringers; total length 64 feet.
Marine Drive Bridge: Redecked bridge 170 x 24 feet; 24 new stringers 8 x 12 feet, 22 feet long; 140-foot handrail.
Sea Island Bridge: Replanked 70 feet with 3-inch plank; repaired draw; repaired 1 abutment with 10 new planks; rebuilt and hung gates; repaired handrail; put on cables.
Lulu Island Bridge: Replanked 175 feet with 4-inch plank; rebuilt and hung gates; repaired handrail; put on cables.

NORTH VANCOUVER DISTRICT.

Snug Cove Wharf: Put in 4 braces, piles; drove fender-piles; drove piles through top of wharf; put in chocks; pulled out old piles, towed same away from wharf; repaired deck with 1,000 feet 4-inch plank.

SIMILKAMEEN DISTRICT.

Ashnola Bridge: Repairs.
Copper Mountain Bridge: Repairs.
Osoyoos Bridge: Repairs.
Fourteen Small Bridges: Repairs.
Lake Shore Bridge: General repairs.
Ward Creek Bridge: New work.
Chopaka Bridge: Repairs.

SKEENA DISTRICT.

Atlin (South) Division.

Bear River No. 1 Bridge: Repairs.
Bitter Creek Bridge: Repairs.
Nass River Main Bridge: Repairs.
Kitsault Ferry Bridge: New construction.
Bug Creek Bridge: New construction.
Canyon Creek Bridge: New construction.
Bush Creek Bridge: New construction.

Interior (South) Division.

Buck River Bridge: Getting out logs and clearing bridge-site.
Endako Bridge: Built abutments on each side, log stringers; plank decking; 2 piers 16 feet high, 46-foot span; heavy wired log for guard-rail.
Endako Bridge: 116 feet long; 2 piers 15 feet high, 48-foot span; plank decking with heavy wired log guard-rail.
Bulkley River Bridge: 158 feet long; plank deck and heavy wired guard-rail.
Houston Station No. 1 Bridge: 2 spans 58 feet long, with 5-foot pier in centre; plank decking.
Houston Station No. 2 Bridge: 62 feet long; 2 spans, 4-foot pier in centre; pole deck with wheel-track adzed.
Burns Lake Bridge: Pile bridge; redecked and braced; piling put in; new stringers.

Interior (North) Division.

Canyon Creek Bridge: Framed and erected 60-foot king-truss span and 90 feet of approach; 2 piers filled with rock and 4-foot fill at north end of bridge.
Canyon Creek Bridge: Bridge rebuilt; 20 feet of new covering; 1 new pier; 1 pier repaired; approaches repaired.
Bulkley River Bridge: Taking up main cables; adjusting hangers; straightening bracing of north tower; framed and erected truss on span; put in 2 extra runs of joists; replanked span; put on handrail and guard-rail.
Bulkley River Bridge: Removing ferry towers and cable 80 feet up-stream to be clear of bridge-site; framing and erecting 4-span Howe-truss bridge; constructing 3 piers and 2 crib piers.

Kitsequekla Bridge: Old bridge burnt out by forest fire; new bridge put in.
Kuldo Bridge: Putting on new bracing.
Mission Creek: Constructing bridges; 1 pier 12 feet high; 2 abutments 6 feet high each.
Moricetown Bridge: Raising new floor-beams; full set of new blocks; 1 new strut; new decking and railing.
Main Fork, Telkwa River Bridge: Complete construction of span and piers and 80 feet of approach.
Pine Creek Bridge: Complete construction of span and approach of 55 feet and excavation of 80 cubic yards of rock.
Skeena River Bridge: Jacking up north tower; taking up main cable; adjusting floor-beam hangers; changing 2 guy-lines; framing and erecting stiffening-truss.
Smithers Bridge: Tightening up main rods, lateral rods, and chord-bolts; also main braces, lateral braces, and intersection-bolts.

Bella Coola Division.

Bella Coola First Crossing Bridge: 1-span Howe truss 120 feet and 1-span king truss.
Sangstad No. 1 Bridge: Rebuilt 135 feet of trestle; putting in a 45-foot span.
Thorsen No. 1 Bridge: General repairs.
Canoe Crossing Bridge: Rebuilt.

Queen Charlotte Islands Division.

Kumdis River: New bridge.
Miller Creek: New bridge.
Queen Charlotte City: New bridge.
Lawn Hill: New bridge.

Lower Skeena Division.

East Spring Creek Bridge: Repairs.
Braun's Bridge: Repairs.
Deep Creek Bridge: Repairs.
Mud Creek Bridge: Repairs.
Alwyn Creek No. 1: New bridge.
Alwyn Creek No. 2 Bridge: Repairs.
McLeod's Road Nos. 4, 5, and 6 Bridges: Destroyed by fire and not rebuilt; road diverted.
Snowshoe Creek Bridge: Repairs.
Terrace Slough: New bridge.
Zimacord Siding: New bridge.
Hughes Road Nos. 1 and 2: New bridges.
Corlette Road Nos. 1, 2, and 3: New bridges.
Thornhill Creek Bridge: Renewed.
Smith Island: New bridge.
Green River No. 1 Bridge: Built by Land Company and repaired by Department.
Green River No. 2: New bridge.
Spring Creek Bridge: Repairs.
Lean-to Creek Bridge: Repairs.
Canyon Bridge: Renewed.
Bridges: Repairs.

Upper Skeena Division.

Kitwanga River Bridge: New construction.
Price Creek Bridge: New construction.
Phillips Creek Bridge: New construction.
Meanskinisht Bridge: New construction.
Copper City Bridge: Reconstruction.

SLOCAN DISTRICT.

Appledale: Constructing new timber bridge.
Carpenter Creek (North Fork) Nos. 2 and 3 Bridges: Shovelling snow.

Cariboo Creek Bridge: General repairs.
Carpenter Creek Bridge: Blowing out log-jams; rebuilding portion of bridge; general repairs.
Carpenter Creek Protection Bridge: Blowing out log-jams.
Cedar Bridge: Material and spikes for railing; planks.
Kooskanax Bridge: Erecting handrails.
Lemon Creek Bridge: Taking out and replacing old cribbing and pier.
Mosquito Creek: Constructing new bridge 255 feet long.
McCormack Bridge: Removing obstructions from river.
Miscellaneous Bridges: Material for repairs; bridge foreman's expenses.
Mineral City Bridge: Removing obstructions.
Nakusp No. 2 Bridge: General repairs.
Perry Siding Bridge: Repairs to decking.
Passmore Bridge: Constructing 150-foot truss and general repairs.
Silverton-Four-mile Nos. 1, 2, and 3 Bridges: Repairing log bridges.
Silverton-Four-mile Nos. 4 and 5 Bridges: Replacing log bridges.
Silverton-Four-mile No. 6 Bridge: New log bridge 42 feet long.
Silverton-Four-mile No. 7: New log bridge 47 feet long.
Ten-mile Creek No. 1: 38-foot span new bridge.
Ten-mile Creek No. 2: 40-foot span new bridge.

YALE DISTRICT.

Ashcroft Bridge: Replaced after wash-out.
Canyon Bridge: Filling in abutments with rock and repairs.
Carrington Bridge: Repairs.
Colletville Bridge: Mattress round piers and covered with rock.
Cottonwood Island Bridge: Repairs.
Emory Bridge: Repairs.
Floodville: New bridge.
Harper's Mill Bridge: Repairs.
Harrison Wharf Bridge: Repairs.
Hope Bridge: Repairs.
Iron Mountain Bridge: Repairs.
Lake Bridge: Repairs.
Manion: New bridge.
Maria Slough Bridge: Repairs.
Nahomeen Creek Bridge: Repairs.
Silver Creek: 2 new bridges.
Spences Bridge: Repairs.
Hyene: Part cost of new bridge.
Ten-mile Creek Bridge: Re-covered.
Tingley Bridge: Repairs.
Voight Bridge: Crib around pier filled with rock; raised ends and adjusted tension.
Walhachin Bridge: Repairs.
Yale Creek Bridge: Repairs.

YMIR DISTRICT.

Pend d'Orielle River Bridge: Preliminary work.
Crescent Valley Bridge: Riprapping south pier.
Yellowstone No. 1 Bridge: New planking and stringers.
Goatee Bridge: Extension 400 feet.
Goat Falls: New bridge; length 433 feet.
Cottonwood Canyon Bridge: Replacing.
Nick's: New bridge; 180 feet long.
Pass Creek Bridge: New decks, stringers, etc.
Syringa Bridge: Weighting with rock.

King Creek Bridge: Riprapping.
Trail-Columbia Bridge: Riprapping and repairing fire-hydrant pipes.
Silver King No. 3: New bridge; 51 feet long.
Taghum Bridge: Cribbing.
Castlegar-West Robson: New bridges; 33 feet and 61 feet respectively.
Cement Creek Bridge: Rebuilding.
Pack: New bridge 67 feet long.
Anderson Creek: New bridge 50 feet long.
Nelson-Balfour Road: 3 new bridges; 16, 18, and 24 feet.

WORKS AND BUILDINGS.

COURT-HOUSE, PRINCE RUPERT. (Vote 122—$10,000.)

Expenditure		$ 238 70

FURNITURE, GOVERNMENT OFFICES THROUGHOUT THE PROVINCE. (Vote 123—$20,000.)

Expenditure, $10,837.84, in the following Districts:—

Alberni		$ 36 70
Atlin		27 16
Clinton		9 25
Cranbrook		2 25
Cumberland		62 00
Fairview		9 75
Fernie		1 35
Field		18 00
Fort Fraser		14 80
Greenwood		22 25
Golden		389 94
Hazelton		49 92
Kamloops Court-house		167 26
Kamloops Provincial Home		290 00
Kaslo		12 35
Nanaimo		111 65
Nelson		108 25
New Westminster		85 25
Prince Rupert		387 30
Princeton		25
Quesnel		22 75
Revelstoke		3 50
Trail		43 00
Vancouver Court-house		98 75
Vanderhoof		4 00
Vernon		15 85
Victoria Court-house		332 45
Victoria Parliament Buildings		8,502 96
Wilmer		8 90

GAOLS AND LOCK-UPS THROUGHOUT THE PROVINCE. (Vote 124—$20,000.)

Expenditure, $4,305.65, in the following districts:—

Alberni—Vananda			$ 10 10
Atlin—Atlin			79 00
Cariboo—			
Clinton	$ 144 65		
Endako	6 50		
Fort Fraser	6 00		
Fort George	106 60		
Fort George (South)	3 30		
Fort St. John	176 43		
Lucerne	37 20		
150-Mile House	80		
Peace River Crossing	3 25		
Prince George	104 15		
Quesnel	12 25		
Tete Jaune Cache	4 75		
Vanderhoof	21 05		
			626 93

Gaols and Lock-ups throughout the Province—*Continued.*

Columbia—		
Field	$ 13 30	
Golden	29 90	
		$ 43 20
Comox—		
Alert Bay	72 53	
Cumberland	14 50	
Powell River	27 94	
St. John	4 75	
		119 72
Cranbrook—		
Cranbrook	$ 5 00	
Fort Steele	11 65	
Natal	1 00	
Waldo	33 00	
Wardner	80	
		51 45
Dewdney—Mission		54 27
Fernie—		
Bull River	$ 1 40	
Fernie	8 00	
Fort Steele	8 25	
Michel	2 70	
Natal	1 50	
		21 85
Grand Forks—		
Corbin	$ 1 25	
Phoenix	5 25	
		6 50
Greenwood—		
Greenwood	$ 6 70	
Midway	42 90	
		49 60
Islands—Sidney		14 85
Kamloops—		
Blue River	$ 39 15	
Chase	9 10	
Kamloops	275 56	
Mount Olie	13 75	
Notch Hill	1 00	
		338 56
Lillooet—Clinton		12 25
Nanaimo—Nanaimo		34 95
Okanagan—Kelowna		42 75
Revelstoke—		
Arrowhead	$ 5 30	
Sicamous	41 00	
		46 30
Richmond—		
Girls' Industrial School	$ 208 40	
McBride	4 15	
Squamish	23 90	
		236 45

GAOLS AND LOCK-UPS THROUGHOUT THE PROVINCE—*Concluded.*

Skeena—		
Alice Arm	$ 184 77	
Hazelton	139 85	
Jedway	63 00	
Masset	43 20	
Port Essington	146 81	
Port Simpson	2 20	
Smithers	74 70	
Telkwa	38 00	
Terrace	11 00	
	$	703 53
Slocan—		
New Denver	$ 1 00	
Silverton	28 54	
		29 54
Yale—		
Ashcroft	$ 29 90	
Lytton	9 25	
Merritt	1 00	
Nicola	3 25	
North Bend	1 00	
Princeton	2 30	
Spences Bridge	1 00	
Wasa	15 00	
		62 70
Ymir—		
Creston	$ 7 50	
Nelson	231 53	
Salmo	9 75	
		248 78
New Westminster		1,000 09
General		472 28

PRISON FARM, OKALLA. (Vote 125—$15,000.)

Expenditure ..... $ 6,390 84

PRISON FARM, SAANICH. (Vote 126—$15,000.)

Expenditure ..... $ 11,870 48

IMPROVEMENT OF GOVERNMENT GROUNDS, VICTORIA. (Vote 127—$15,000.)

Expenditure ..... $ 8,540 64

IMPROVEMENT OF GOVERNMENT RESERVES. (Vote 128—$10,000.)

Expenditure ..... $ 4,098 51

IMPROVEMENT OF GOVERNMENT RESERVE, BURNABY. (Vote 129—$10,000.)

Expenditure ..... *Nil*

KING EDWARD SANATORIUM, TRANQUILLE. (Vote 130—$10,000.)

Expenditure ..... $ 10,000 00

MENTAL HOSPITAL, ESSONDALE. (Vote 131—$17,900.)

Expenditure ..... $ 15,905 55

NURSERY, ESSONDALE. (Vote 132—$13,000.)

Expenditure ..... $ 8,673 05

Colony Farm, Essondale.
(Vote 133—$4,000; Sup., $2,000 = $6,000.)

Expenditure ..... $ 5,047 00

Mental Hospital, New Westminster. (Vote 134—$10,000.)

Expenditure ..... $ 8,956 30

Provincial Government Buildings, London, England. (Vote 135—$175,000.)

Expenditure $153,883 05

Provincial Normal School, Vancouver (Maintenance).
(Vote 136—$2,500; S.W., $500; Sup., $500 = $3,500.)

Expenditure ..... $ 3,379 39

Provincial Normal School, Victoria (Maintenance). (Vote 137—$8,000.)

Expenditure ..... $ 3,037 38

Public Schools throughout the Province. (Vote 138—$200,000.)

Expenditure on grants, buildings, school-desks, etc., $126,283.46. By credit, deposit cheque *re* Smithers School contract, $1,536. Total, expenditure, $124,747.46.

Grants were made to the following School Boards: Anderson Creek, Atlin, Barriere, Barriere Valley, Begbie, Big Bar, Blueberry, Blue River, Boston Bar, Bridesville, Brisco, Burns Lake, Canford, Canim Lake, Cape Scott, Castledale, Clo-oose, Coltern, Cranbrook, Deer Park, Dunster, Extension, Fish Lake, Fort George, Fruitlands, Gillis Bay, Greenwood, Half Moon, Hall's Landing, Hilborn, Kitimat, Lac du Bois, Lower Chase Creek, Lower Squamish, Meadowbrook, Meadow Valley, Mountain, McMurdo, Nakusp, Nechako, Nelson, Nine-mile Creek, North Star, Okanagan Landing, Okeover Arm, Olsen, Parson, Pinantan, Round Top, Rossland, Saanich, Sandwick, Sisters Creek, Silverton, Soda Creek, Sooke, Sooke Harbour, South Fort George, Squirrel Cove, Squam Bay, Swift Creek, Tower House, Trail, Turtle Valley, Upper Trout Creek, Vananda, Wanklyn, Wapta, Watmore, Westview, Whaleton, and White Lake.

The following school buildings were erected: Colony Farm, Corbin, County Line, Dumach, Essondale, Extension, Ladysmith, Maple Ridge, Mara, Merritt, McBride, Nicomen, Oyama, Sidney, Silverdale, Silverton, Sooke, South Okanagan, and Trout Creek.

Government House, Victoria. (Vote 139—$17,000.)

Expenditure, $16,907.94. Less credit, $1,850. Total expenditure, $16,889.44.

Repairs to Government Buildings throughout the Province. (Vote 140—$20,000.)

Expenditure, $18,161.53, in the following districts:—

Alberni—Alberni		$ 257 89
Atlin—		
Atlin	$ 241 35	
Telegraph Creek	31 13	
		272 48
Cariboo—Cariboo		487 90
Chilliwack—Chilliwack		91 15
Columbia—Golden		65 95
Cranbrook—Cranbrook		69 78
Fernie—Fernie		88 25
Grand Forks—Grand Forks		20 75
Greenwood—Greenwood		793 10
Kamloops—Kamloops		4,205 15
Kaslo—Kaslo		185 23
Lillooet—Clinton		379 68

REPAIRS TO GOVERNMENT BUILDINGS—*Concluded.*

Nanaimo—		
Nanaimo	$2,803 18	
Mine-rescue Station	48 65	
		$ 2,851 83
Okanagan—Vernon		383 17
Revelstoke—Revelstoke		290 30
Similkameen—		
Fairview	$ 7 50	
Princeton	8 00	
		15 50
Skeena—		
Hazelton	$ 114 73	
Prince Rupert	967 35	
		1,082 08
Slocan—New Denver		16 25
Yale—Nicola		77 69
Ymir—Nelson		2,120 74
Court-houses—		
New Westminster	$1,755 68	
Vancouver	1,758 19	
Victoria	815 29	
		4,329 16

REPAIRS TO PARLIAMENT BUILDINGS. (Vote 141—$14,500.)

Expenditure	$ 14,102 63

STATEMENT OF EXPENDITURE.

Roads, Streets, Bridges, and Wharves.

Fiscal Year ending 31st March, 1917.

ALBERNI DISTRICT. (Vote 142—$53,500.)

Eastern Division.

Road—Alberni (gravelled and general repairs)	$	2,973 15
„ Beaver Creek Wharf (general repairs)		91 75
„ Biggs and Crossan (general repairs)		253 50
„ Biological Station (general repairs)		63 50
„ Bourmane (general repairs)		73 00
„ Buck's (general repairs)		105 00
„ Cache Creek Ferry (general repairs)		25 75
„ Church (general repairs)		121 75
„ Clark and Robson (general repairs)		75 00
„ Claudet *et al.* (general repairs)		45 00
„ Coombs and Jones (general repairs)		28 00
„ Corfield Bros. (general repairs)		19 25
„ Departure Bay (general repairs)		320 50
„ Dumont and Donner's (general repairs)		44 00
„ Errington Cross (general repairs)		158 50
„ Fisher's (general repairs)		25 00
„ Giant Powder Co. (general repairs)		258 25
„ Grafton (corduroy and general repairs)		517 65
„ Guellette and Wallace (general repairs)		110 00
„ Hellier and Jones (general repairs)		502 25
„ Jenkins (general repairs)		79 00
„ Knight's (general repairs)		13 00
„ Lagoon (general repairs)		138 50
„ Lasqueti Island (brushing out and general repairs)		904 30
„ Leffler's (general repairs)		250 00
„ Lot 79, Nanoose (general repairs)		60 00
„ Lot 98, Nanoose (general repairs)		400 00
„ Lowery and Craig (general repairs)		86 50
„ Martindale Bros. (general repairs)		16 00
„ Matterson *et al.* (general repairs)		20 00
„ Morrell's (general repairs)		9 00
„ Morrison's (general repairs)		125 00
„ McKercher's (general repairs)		161 75
„ McKibben (general repairs)		25 00
„ McNeil and Williams (general repairs)		13 00
„ North-west Bay (general repairs)		159 80
„ Page's (gravelled and general repairs)		25 00
„ Parker *et al.* (gravelled and general repairs)		36 00
„ Parkville Cross (gravelled and general repairs)		96 00
„ Pillars (gravelled and general repairs)		62 00
„ Pyms *et al.* (gravelled and general repairs)		82 00
Carried forward	$	8,572 65

Brought forward	$	8,572 65
ALBERNI DISTRICT—*Continued.*		
Eastern Division—Concluded.		
Road—Rath's (gravelled and general repairs)		17 50
„ School-house (gravelled and general repairs)		109 50
„ Stanhope and Scott (gravelled and general repairs)		26 00
„ Starkey and Stewart (gravelled and general repairs)		80 50
„ Stewart and Hamil (gravelled and general repairs)		45 00
„ Swayne's (gravelled and general repairs)		76 25
„ Taylor's (general repairs)		21 00
„ Temple and Reid (gravelled and general repairs)		51 00
„ Texada Island (brushing out and general repairs)		3,572 50
„ Turner and Rutherford (gravelled and general repairs)		53 00
„ Victoria-Campbell River (gravelled and general repairs)		6,024 28
„ Ward's (gravelled and general repairs)		157 50
„ Weigle and Jones (gravelled and general repairs)		685 50
„ Wellington (old town) (gravelled and general repairs)		369 00
„ Wright and Bowley (gravelled and general repairs)		25 00
„ Young, Baird, and Benson (gravelled and general repairs)		26 00
Trail—Banfield (general repairs)		274 50
„ Big Interior (clearing windfalls and general repairs)		431 65
„ Colony Lake (clearing windfalls and general repairs)		50 00
„ Flores Island (cleared and grubbed)		148 50
„ Green and Ilstad (general repairs)		80 25
„ Holberg-Winber Harbour (general repairs)		101 00
„ Koprino-Winber Harbour (brushed out and repairs)		55 00
„ Limestone Island (repairs and brushed out)		79 75
„ Mud Bay-Long Beach (general repairs)		35 00
„ Noot and Bland (general repairs)		15 00
„ Pachena (general repairs)		75 00
„ Peninsula-Ucluelet (general repairs)		1,549 16
„ Quatsino (sundry) (general repairs)		100 50
„ Sea Otter Cove (general repairs)		228 00
„ Taylor River (bucking log off trail and brushing out)		100 00
„ Ucluelet-Kennedy Lake (brushing out and repairs)		108 00
General supplies		120 65
Total	$	23,464 14
Western Division.		
Road—Beaver Creek (building culvert, cleaning ditches, and general repairs)	$	493 50
„ Beaver Creek-Loop (general repairs)		283 93
„ Bland's (gravelling and general repairs)		20 00
„ Best's (gravelling and general repairs)		139 00
„ Cameron (cleaning ditches and general repairs)		10 00
„ Cape Scott (general repairs and gravelling)		2,256 70
„ Central Lake (general repairs and gravelling)		359 20
„ Cherry Creek (general repairs and gravelling)		365 50
„ China Creek (general repairs and cleaning ditches)		508 00
„ Clayoquot-Ucluelet (converting trail into wagon-road and general repairs)		1,940 36
„ Colman's (logged, dragged, and general repairs)		70 00
„ Commerford's (general repairs)		2 00
„ Comox (general repairs)		20 00
Carried forward	$	6,468 10

Brought forward	$ 6,468 10
ALBERNI DISTRICT—*Concluded.*	
Western Division—Concluded.	
Road—Compton's (general repairs)	45 00
„ Cowley's (general repairs)	120 50
„ De Beaux (brushed out)	20 00
„ Drinkwater's (cleaning out windfalls and general repairs)	74 00
„ Faber's (general repairs)	176 75
„ Fisherman Bay (general repairs)	6 00
„ Grandview (general repairs)	23 00
„ Greenard (addition to Cherry Creek School) (brushed out)	20 00
„ Hector's (brushed out and general repairs)	147 80
„ Holberg-San Josef (general repairs)	1,551 45
„ Kitsuksis (general repairs)	338 50
„ Lake Shore (brushing out and general repairs)	124 30
„ Lateltin's (brushing out and general repairs)	55 00
„ Lord's (brushing out and general repairs)	94 50
„ Maggie Lake (brushing out and general repairs)	129 00
„ Martin's (brushing out and general repairs)	20 00
„ Mesher's (brushing out and general repairs)	145 00
„ Millins (brushing out and general repairs)	23 90
„ Milltown (gravelling and repairing)	85 50
„ Mission (gravelling and repairing)	188 00
„ Moore's (general repairs and brushing out)	75 00
„ McCoy Lake (gravelling and repairs)	165 44
„ McKenzie's (brushing out and general repairs)	45 00
„ Nanaimo-Alberni (general repairs)	2,496 20
„ Nebraska (general repairs)	12 00
„ Nootka (gravelling and repairs)	688 55
„ Port Alberni-Four-mile Creek (new work, rough-graded)	3,915 43
„ Quatsino Wagon (general repairs and ¼ mile new road)	543 15
„ Russell and Swanson (gravelling and repairs)	50 00
„ San Josef Valley (general repairs)	1,054 25
„ Scotch Settlement (general repairs)	72 05
„ Somers (general repairs)	70 75
„ Sproat Lake (gravelling and general repairs)	281 64
„ Strandby-Cape Scott (gravelling and general repairs)	1,341 35
„ Thompson's (general repairs)	72 50
„ Vargas Island (general repairs)	268 80
„ Walker and Marvin (general repairs)	105 00
„ Withers (general repairs)	35 00
„ Woolsey's (general repairs)	20 00
„ Ucluelet-Long Beach (general repairs)	60 00
Supervision	2,679 58
General supplies	2,798 40
Total	$ 26,706 48
Grand total	$ 50,170 62

ATLIN DISTRICT. (Vote 143—$18,000.)

Atlin Division.

Road—Atlin-Surprise (general repairs)	$ 130 00
Trail—Big Horn (general repairs)	155 00
Carried forward	$ 285 00

Brought forward	$ 285 00

ATLIN DISTRICT—*Concluded.*

Atlin Division—Concluded.

Trail—Birch Creek (general repairs)	105 00
„ Boulder Creek (general repairs)	130 00
„ Burdette-O'Donnel (general repairs)	10 00
„ Fourth of July (general repairs)	1,252 50
„ Gleanerville (general repairs)	450 00
„ Klehini River Wagon (general repairs)	1,521 55
„ Moose Arm Wagon (general repairs)	83 00
„ McKee Creek (general repairs)	45 00
„ O'Donnel River (general repairs)	387 50
„ Otter Creek (general repairs)	295 00
„ Ruby Creek (general repairs)	459 25
„ Slate Creek (general repairs)	100 00
„ Spruce Creek (general repairs)	1,757 06
„ Wilson Creek (general repairs)	10 00
Streets—Atlin (general repairs)	1,079 10
„ Discovery (general repairs)	117 64
Bridge—Gold River (general repairs)	52 50
Supervision	1,520 79
General supplies	2,384 19
Total	$ 12,045 08

Telegraph Creek Division.

Road—Casa (general repairs)	$ 47 00
„ Dease (general repairs)	1,830 59
„ Glenora (general repairs)	56 00
Trail—Dease (general repairs)	1,681 29
„ Klappan (general repairs)	115 00
„ Teslin (general repairs)	446 60
„ Thibet Creek (general repairs)	25 00
Streets—Telegraph Creek (general repairs)	275 35
Bridge—Day's (general repairs)	31 00
„ No. 4, Casa (general repairs)	179 00
„ No. 49 (general repairs)	54 00
„ Little Tahltan (general repairs)	5 00
„ Nahlin (general repairs)	54 00
„ Seven-mile (general repairs)	113 00
„ Tahltan, No. 24 (general repairs)	5 00
„ Tooga (general repairs)	118 00
„ Ward's (general repairs)	26 00
General supplies	789 66
Total	$ 5,851 49
Grand total	$ 17,896 57

CARIBOO DISTRICT. (Vote 144—$123,000.)

Northern Division.

Road—Aleza Lake (new work)	$ 662 80
„ Bave (south) (general repairs)	370 20
Carried forward	$ 1,033 00

Brought forward	$ 1,033 00
CARIBOO DISTRICT—*Continued.*	
Northern Division—Concluded.	
Road—Bishop (improved)	768 50
„ Bobtail Lake-Pelican (general repairs)	204 00
„ Compensation (*re* road between Lots 1543 and 1544)	98 00
„ Cranberry Lake (5 culverts built, general repairs, and ½ mile new road)	862 95
„ Dewey (south) (new work)	510 50
„ Dewey (west) (new work)	400 60
„ Dome Creek (new work)	1,059 75
„ Eagle Lake (road improved)	1,944 60
„ Fort George-Blackwater (road improved)	2,058 00
„ Fort George-Chief Lake (road extended)	192 24
„ Fort George-Giscome (clearing, grubbed, etc.)	4,004 95
„ Fort George-Pinker-Willow River (general repairs)	50 00
„ Fort George-Stony Creek (improving)	2,629 17
„ Fraser-Francois Lake-Endako (2 small bridges built and improving)	1,062 05
„ Giscome-Summit Lake (new work)	258 25
„ Government Creek (new work)	238 25
„ Greer Valley (new work)	927 10
„ Isle Lapere (new work)	85 00
„ Manson Creek-Fort St. James (extended)	1,613 89
„ Milne's Landing (east) (general repairs)	110 00
„ Milne's Landing (west) (general repairs)	1,006 75
„ Mud River-Chilako (new work)	406 00
„ McBride District (improved)	1,942 90
„ Necoslie River (new road)	786 47
„ Ness Lake (new road)	915 00
„ Noolki Lake (general repairs)	12 00
„ Peace River District (new work)	5,571 49
„ Pinker Settlement (general repairs)	17 50
„ Quesnel-Fort Fraser (general repairs)	301 00
„ Ranch Valley District (general repairs)	1,552 19
„ Six-mile Lake-Buckhorn (new work)	1,012 25
„ Stuart River-Vanderhoof (extended)	3,509 88
„ Tsinkut-Stuart Lake (improving)	5,029 55
„ Upper Mud River (improving)	274 25
„ Vanderhoof (west) (general repairs)	15 75
„ Willow River District (new work)	1,152 00
Bridge approach—Fraser River at Prince George	1,203 75
„ „ Nechako River at Prince George	691 25
Ferry—Stuart River	19 50
Supervision	3,367 65
General supplies	4,802 08
Total	$ 53,700 01
Southern Division.	
Road—Ashcroft-Soda Creek (general repairs)	$ 6 66
„ Beaver Lake-Beavermouth (construction)	1,710 64
„ Beaver Valley (general repairs)	1,443 19
„ Beedy Creek (general repairs)	189 74
„ Cariboo Main (maintenance)	1,641 45
Carried forward	$ 4,991 68

Brought forward	$	4,991 68
CARIBOO DISTRICT—*Continued.*		
Southern Division—Concluded.		
Road—Chezacut-Alexis Creek (bridge and approaches)		54 00
„ Chilcotin Main (corduroy and general repairs)		5,038 93
„ Chilcotin-Soda Creek		1,466 07
„ Harpers Camp-Quesnel Lake (general repairs)		575 01
„ Horsefly (built culverts and general repairs)		648 00
„ Hydraulic-Seven-mile (general repairs)		52 00
„ Little Lake-Quesnel Lake (general repairs)		78 75
„ Mud Lake (general repairs)		3 25
„ 150-Mile-Harpers Camp (general repairs)		1,214 38
„ 150-Mile-Spokin Lake (general repairs)		82 50
„ 158-Mile-Quesnel Forks (clearing, grading, and general repairs)		1,847 42
„ Quesnel Forks-Keithley (new work)		1,979 55
„ Seven-mile Creek (general repairs)		3 25
„ Soda Creek-Alexandria (general repairs)		1,420 49
„ Upper Horsefly (construction)		4,308 67
„ Williams Lake-Alkali (general repairs)		562 37
Trail—Keithley Creek (clearing, grading, etc.)		449 80
„ Keithley (Kangaroo Creek) (general repairs)		21 00
Bridge—Keithley Creek (general repairs)		7 00
Wintering horses		995 32
Assistant Engineer's car		30 90
Supervision		872 25
General supplies		2,386 09
Total	$	29,088 68
Central Division.		
Road—Antler Creek-Barkerville (general repairs)	$	336 50
„ Baker's (general repairs)		52 50
„ Barkerville—Bulkhead (general repairs)		332 82
„ Barkerville-Fraser River (general repairs)		904 00
„ Barkerville-Fraser River Sleigh (general repairs)		409 50
„ Bear Lake-Indian Point (construction)		1,537 50
„ Cottonwood-Fraser River (general repairs)		26 00
„ Deacon's (general repairs and construction)		1,174 91
„ Dragon Lake (general repairs and construction)		10 50
„ Kersley-Dale's Landing (general repairs)		47 50
„ Kersley-Beavermouth (general repairs)		196 00
„ Lowhee-Jack of Clubs (general repairs)		82 50
„ Main Trunk (maintenance)		7,724 89
„ Mud Hill (general repairs)		148 00
„ McLean's (general repairs)		199 50
„ Ormheim's-Little Cottonwood (general repairs)		105 00
„ Quesnel-Alexandria (general repairs)		562 00
„ Quesnel-Blackwater (general repairs)		259 51
„ Quesnel-Cottonwood (construction)		2,118 89
„ Quesnel-Nazko (construction and repairs)		5,398 28
„ Quesnel-Quesnel Forks (general repairs)		6,917 21
„ Stouts Gulch (general repairs)		127 50
„ Ferry Creek (general repairs)		263 00
„ Winter (shovelling snow and general repairs)		1,340 50
Carried forward	$	30,274 51

Brought forward	$ 30,274 51
CARIBOO DISTRICT—*Concluded.*	
Central Division—Concluded.	
Trail—Cottonwood-Willow River (general repairs)	26 00
„ Hixon Creek (general repairs)	87 00
„ Stony Lake (general repairs)	36 00
„ Willow River (general repairs)	194 00
Street—Quesnel (general repairs)	110 94
Bridge—Alexandria-Bridge Road	50 00
Barn—Quesnel	4 65
Fencing—Block 55	34 56
Wintering horses	492 64
Assistant Engineer's car	561 68
Supervision	1,586 75
General supplies	6,333 51
Total	$ 39,792 24
Grand total	$122,580 93
CHILLIWACK DISTRICT. (Vote 145—$33,300.)	
Road—Abbotsford-East Yale (general repairs)	$ 268 90
„ Abbotsford-Huntingdon (general repairs)	566 90
„ Abbotsford-Riverside (grading and general repairs)	1,399 99
„ Abbotsford-Townsite (laying drain, building sidewalk, and general repairs)	2,511 86
„ Abbotsford-West Yale (laying drain, building sidewalk, and general repairs)	2,736 83
„ Aberdeen (general repairs)	606 40
„ Chilliwack River (general repairs)	1,189 25
„ Clayburn-Straiton (general repairs)	315 58
„ Columbia Valley (general repairs)	915 20
„ Delair (general repairs)	302 50
„ Dennison (general repairs)	133 70
„ Ford (general repairs)	76 00
„ Gifford Siding (general repairs)	68 93
„ Huntingdon Townsite (general repairs)	828 26
„ Marsh (general repairs)	518 83
„ Matsqui-Mount Lehman (general repairs)	1,476 50
„ Mount Lehman Trunk (general repairs)	302 20
„ O'Hearn (general repairs)	446 45
„ Page (general repairs)	418 65
„ Peardonville (general repairs)	460 00
„ Ross (general repairs)	221 25
„ Sumas (general repairs)	526 90
„ Vedder Mount Quarry (rock crushed, waste removed, etc.)	1,730 43
„ Vye (general repairs)	1,266 85
„ Wade's Landing (general repairs)	634 15
„ White (general repairs)	464 00
„ Yale-Chilliwack-Rosedale (general repairs)	3,506 06
„ Yale-Chilliwack-Vedder (general repairs)	1,542 15
„ Yale-Rosedale (east) (general repairs)	103 60
„ Yale-Vedder-Prairie (general repairs)	2,734 05
„ Yale-Vedder Mountain-Wye (general repairs)	1,417 82
Carried forward	$ 29,690 19

Brought forward	$ 29,690 19
CHILLIWACK DISTRICT—*Concluded.*	
Street—Huntingdon	407 90
Bridge—McDougald	33 00
Supervision	2,916 11
General supplies	165 72
Total	$ 33,212 92
COLUMBIA DISTRICT. (Vote 146—$36,000.)	
Road—Athalmer-Toby Creek (general repairs)	$ 1,071 50
„ Athalmer and vicinity (maintenance)	510 41
„ Athalmer-Wilmer (general repairs)	16 50
„ Banff-Windermere (general repairs)	84 00
„ Bench-Beard's Creek (new work and general repairs)	1,752 50
„ Bench-19-Mile Post (general repairs)	350 75
„ Blaeberry (maintenance)	654 80
„ Campbell (cleared, grubbed, etc., new culverts)	2,619 30
„ Canal Flats (general repairs)	1,369 00
„ Donald-Blaeberry (general repairs)	58 20
„ Dutch Creek-Canal Flats, Main (general repairs)	190 00
„ Dutch Creek Hill-Fairmont, Main (general repairs)	326 50
„ Dutch Creek (general repairs)	159 35
„ Findlay Creek (general repairs)	247 50
„ Giant Mine (general repairs)	80 25
„ Golden Benches (new road)	689 56
„ Golden-Donald (general repairs)	959 65
„ Golden and vicinity (building sidewalks and general repairs)	2,158 69
„ Horse Thief Creek (general repairs)	294 50
„ Invermere and vicinity (new work)	611 05
„ Kettleson (cleared and graded)	150 00
„ Kootenay Valley (general repairs)	108 00
„ Main Trunk (east side) (cleared, grubbed, graded, etc.)	6,767 19
„ Main Trunk (west side) (general repairs)	817 00
„ Moberly-Bench (new work)	1,085 10
„ Moberly-Donald (built 7 log culverts and general repairs)	2,129 25
„ No. 2 Creek (general repairs)	549 50
„ No. 3 Creek (general repairs)	131 50
„ Pinehurst (general repairs)	52 50
„ Red Rock (general repairs)	156 50
„ South Brisco (cleared, grubbed, and general repairs)	499 10
„ Stoddart's Creek (general repairs)	10 00
„ Toby Creek (repairs)	1,027 55
„ Upper Columbia Lake (east side) (general repairs)	70 50
„ Wilmer (ditched and general repairs)	196 00
„ Windermere Lake (east) (general repairs)	3 75
„ Windermere Lake (west) (general repairs)	46 00
„ Windermere and vicinity (general repairs)	77 70
Trail—Boulder Creek (cleared out)	525 00
„ Bugaboo (cleared out)	22 50
„ Canoe River (general repairs)	192 00
„ Kootenay (cleaned out and widened)	21 00
„ Porcupine (cleaned out)	99 00
„ Spillimacheen (cleaned out)	350 70
Carried forward	$ 29,291 15

Brought forward	$ 29,291 15

COLUMBIA DISTRICT—*Concluded.*

Trail—Taggart's (general repairs)	60 00
„ Toby Creek (North Fork) (general repairs)	60 00
„ Vermont Creek (general repairs)	428 00
„ Wait-a-bit (general repairs)	216 95
Rent—Tool-shed at Wilmer	15 00
Supervision	3,389 30
General supplies	2,225 97
Total	$ 35,686 57

COMOX DISTRICT. (Vote 147—$59,500.)

Northern Division.

Road—Cache Creek-Shushartie (built 10 culverts and general repairs)	$ 2,220 25
„ Cortes Island (cleared, grading, and built 4 culverts)	1,439 45
„ Grief Point-Powell River (clearing, grading, etc.)	3,450 00
„ Hardy Bay-Coal Harbour (general repairs)	225 00
„ Hardy Bay-Kains Lake (built 10 culverts, clearing, grading, and general repairs)	2,297 25
„ Hardwick Island (general repairs)	150 50
„ Jackson Bay (general repairs)	199 99
„ Lot 240, Powell Lake (general repairs)	204 00
„ Lund-Malaspina (general repairs)	317 50
„ Lund-Powell River (clearing, grading, gravelling, etc.)	5,313 50
„ Malcolm Island (general repairs)	831 00
„ Mary Island (general repairs)	109 50
„ Nahwitte (general repairs)	229 00
„ Nimpkish River-Lundquist's (general repairs)	699 76
„ Okeover Arm (general repairs)	118 00
„ Port Harvey (general repairs)	98 00
„ Powell Lake-Olsen Lake (built 24 culverts, clearing, grading, etc.)	1,102 25
„ Powell River-Cranberry Lake (general repairs)	109 00
„ Powell River Wharf and approach (general repairs)	473 00
„ Read Island (general repairs)	209 30
„ Salmon River (built 5 culverts, clearing, grading, etc.)	2,514 60
„ Savary Island (general repairs)	299 95
„ Shoal Bay-Bickley Bay (general repairs)	200 00
„ Thunder Bay-Roberts (general repairs)	150 00
Supervision	2,295 45
General supplies	508 93
Total	$ 25,764 68

Southern Division.

Road—Anderton (general repairs)	$ 391 50
„ Back (general repairs)	177 50
„ Bagot (general repairs)	20 00
„ Block 33, Nelson District (general repairs)	4 50
„ Buker's (general repairs)	39 00
„ Burns and Parkin (general repairs)	154 00
„ Butcher's (general repairs)	50 00
„ Cape Mudge (general repairs)	166 00
„ Comox-John Hardy (general repairs)	68 00
Carried forward	$ 1,070 50

Brought forward	$	1,070 50
COMOX DISTRICT—*Continued.*		
Southern Division—Continued.		
Road—Comox Hospital (general repairs)		357 00
„ Courtenay-Comox (built 3 culverts, filling in, and general repairs)		367 43
„ Cove (general repairs)		83 00
„ Cowie, J. (general repairs)		14 00
„ Cowie, Alex. (general repairs)		73 00
„ Creech (general repairs)		324 50
„ Cross at Bridges (general repairs)		6 00
„ Cross at Grieve and Renison's (general repairs)		33 00
„ Cross at Hodgson's (general repairs)		53 50
„ Cross at Ryan's (general repairs)		48 00
„ Cross at Smith's (general repairs)		16 50
„ Cumberland-Comox Lake (general repairs)		3 70
„ Cumberland-Courtenay (general repairs)		316 00
„ Cumberland-No. 7 Mine (general repairs)		889 70
„ Cumberland-Roy (general repairs)		117 00
„ Curren's (general repairs)		79 50
„ Dominion Island (general repairs)		900 05
„ Drew Harbour (general repairs)		60 00
„ Fraser and Harrigan (general repairs)		4 00
„ Ginsberg (general repairs)		105 00
„ Gowland Harbour (general repairs)		108 50
„ Hawkins and McCluskey (general repairs)		16 50
„ Higgins and Knight (general repairs)		68 00
„ Hornby Island (general repairs)		20 75
„ Huband (general repairs)		82 50
„ Joyce, A. (general repairs)		26 50
„ Kirby, A. (general repairs)		21 00
„ Lawrence and Biscoe (general repairs)		72 50
„ Lever's (general repairs)		36 00
„ Little River (general repairs)		573 50
„ Lisk and Heriot Bay (general repairs)		72 00
„ Lot 17 (general repairs)		9 00
„ Lot 190 (general repairs)		17 00
„ Main (general repairs)		232 75
„ Main (east) (general repairs)		85 50
„ Main (west) (general repairs)		74 50
„ Marsden and Kilpatrick (general repairs)		378 00
„ Milligan and Parkin (general repairs)		247 50
„ Minto School (general repairs)		158 50
„ Muir and Hawkins (general repairs)		68 00
„ McDonald's (general repairs)		33 00
„ McQuillan-Piercy (general repairs)		36 50
„ Ole Bristol (general repairs)		21 00
„ Radford (general repairs)		125 00
„ Ryan-Hudson (general repairs)		33 00
„ Sackville (general repairs)		36 00
„ Sandwick-Bridges (general repairs)		407 25
„ Scott's (general repairs)		71 50
„ Sharpe-Moore (general repairs)		34 00
„ Simonds (general repairs)		58 00
„ Stewart-Cameron (general repairs)		11 00
Carried forward	$	8,156 13

Brought forward	$	8,156 13

COMOX DISTRICT—*Concluded.*

Southern Division—Concluded.

Road—Stillwater-Scotch Fir (general repairs)		49 50
„ Strachan's (general repairs)		18 00
„ St. John's Point (general repairs)		220 50
„ Subdivision, Section 33, Union Bay (general repairs)		671 20
„ Terrance (general repairs)		303 50
„ Valdes Island (general repairs)		1 10
„ Victoria-Campbell River (Grantham, Section 79B) (general repairs)		721 75
„ Victoria-Campbell River (Grantham, Section 79C) (general repairs)		984 97
„ Victoria-Campbell River (Oyster and Campbell River, Section 79A) (3 culverts built and general repairs)		2,549 90
„ Victoria-Campbell River (Qualicum, Section 79F) (2 culverts built, clearing, grading, etc.)		2,698 30
„ Victoria-Campbell River (Section 79D) (general repairs)		629 35
„ Victoria-Campbell River (Union Bay, Section 79E) (10 culverts built, clearing, grading, etc.)		2,058 50
„ Williams		149 00
„ Woods (general repairs)		25 00
Trail—Lake (general repairs)		310 00
„ Lake-No. 7 Mine (general repairs)		710 00
„ Lake-Power-house (general repairs)		52 00
„ Rheimbault's (general repairs)		36 00
„ School (general repairs)		40 50
Supervision		3,640 78
General supplies		1,531 96
Total	$	25,557 94
Grand total	$	51,322 62

COWICHAN DISTRICT. (Vote 148—$33,300.)

Road—Bazzett (general repairs)	$	170 25
„ Bawdon and Vaux (general repairs)		130 40
„ Bear Valley (general repairs)		140 75
„ Bench (general repairs)		122 30
„ Butt (general repairs)		10 00
„ Cameron-Taggart (general repairs)		150 50
„ Carvell-Jackson (general repairs)		100 75
„ Cavin (general repairs)		100 00
„ Chapman (new) (general repairs)		308 25
„ Chapman (old) (general repairs)		101 10
„ Cherry Point (general repairs)		160 00
„ Cobble Hill School-house (general repairs)		320 45
„ Coleman (general repairs)		54 00
„ Cowichan Lake (built 6 culverts, clearing, grading, etc.)		3,059 15
„ Cowichan Lake Landing (general repairs)		20 00
„ Cowichan Lake (north shore) (general repairs)		153 00
„ Cowichan Lake (south shore) (built 7 culverts, grubbing, filling in, etc.)		1,135 50
„ Cowichan River (general repairs)		168 30
„ Devin and McLay (general repairs)		69 00
„ Deloume (general repairs)		52 00
Carried forward	$	6,525 70

Brought forward	$ 6,525 70
COWICHAN DISTRICT—*Continued.*	
Road—Dighton (general repairs)	39 00
„ Duncan-Sahtlam (general repairs)	40 00
„ Fisher (general repairs)	1,382 25
„ Glenora Cross (general repairs)	98 01
„ Grant and Dick (general repairs)	64 00
„ Halhead (general repairs)	169 50
„ Hall and Hawkins (general repairs)	23 50
„ Hillbank (general repairs)	54 50
„ Howie (general repairs)	51 00
„ Hopkins and Swamp (general repairs)	80 85
„ Indian (general repairs)	249 75
„ Koksilah Flats (general repairs)	212 10
„ Koksilah Mines (general repairs)	114 40
„ Koksilah Riverside (general repairs)	379 31
„ La Fortune (general repairs)	82 50
„ Lakeside (general repairs)	330 25
„ Livingston and Dingwall (general repairs)	74 50
„ Manley (general repairs)	200 00
„ Marchmont (general repairs)	50 00
„ Marshall (general repairs)	75 50
„ Menzies (general repairs)	24 00
„ Miller (general repairs)	124 05
„ Mountain (general repairs)	97 50
„ Mount Sicker-Somenos (general repairs)	24 75
„ McKinley-Doupe (general repairs)	140 50
„ Neel's (general repairs)	43 00
„ Nightingale (general repairs)	207 00
„ Old Koksilah (built 5 culverts and general repairs)	1,264 40
„ Old School-house (general repairs)	186 65
„ Old Victoria (general repairs)	850 05
„ Pannell (general repairs)	38 50
„ Parker (general repairs)	28 50
„ Phipps (general repairs)	59 70
„ Riverside Drive (general repairs)	150 50
„ Rowe's (general repairs)	25 00
„ Sahtlam (general repairs)	252 00
„ Shawnigan Lake (general repairs)	561 25
„ Sheppard (general repairs)	197 75
„ Sherman (general repairs)	127 00
„ Spears (general repairs)	15 20
„ Soole (general repairs)	26 00
„ Telegraph (general repairs)	483 00
„ Thain (general repairs)	103 00
„ Victoria-Campbell River (built 11 culverts, clearing, cribbing, and gravelling)	9,280 59
„ Waters (general repairs)	240 35
„ Wilder (general repairs)	28 00
„ Wilson's (general repairs)	159 20
Trail—Cheewal River-Clo-oose (general repairs)	78 75
„ Clo-oose-Nitinat Lake (general repairs)	245 50
„ Silver Mine (general repairs)	314 80
„ Tatlis-Banfield-Clo-oose (general repairs)	30 00
Carried forward	$ 25,703 11

Brought forward	$ 25,703 11

COWICHAN DISTRICT—*Concluded.*

Supervision	1,754 95
General supplies	52 15
Total	$ 27,510 21

CRANBROOK DISTRICT. (Vote 149—$41,000.)

Road—Bull River-Fort Steele (repairs after wash-out)	$	917 50
„ Cranbrook (adjacent to City) (clearing, grading, ditching, and gravelling)		1,810 40
.. Cranbrook-Fort Steele (culverts, excavating earth, grading, etc.)		4,000 00
.. Cranbrook-Fort Steele via Mission (excavating rock and general repairs)		1,000 00
„ Cranbrook-Gateway (general repairs)		875 84
„ Cranbrook-Morris and Baker (general repairs)		250 00
„ Cranbrook-McClure's and Kingsmill (general repairs)		400 00
„ Cranbrook-St. Mary River (general repairs)		500 00
„ Cranbrook-Wycliffe (3 culverts built, graded and gravelled)		5,133 28
„ Fort Steele-Canal Flats (filling wash-out and clearing out timbers)		772 50
„ Four-mile Creek-Ranchers (general repairs)		500 00
.. Kimberley-Cherry Creek (general repairs)		200 00
.. Main Trunk (Cranbrook-Moyie) (built 5 culverts, cleared, grubbed, and gravelled)		1,888 79
.. Main Trunk (Moyie-Goatfell) (built 1 culvert, cleared, grubbed, and gravelled)		2,000 00
„ Main Trunk (Wardner-Cranbrook) (built 2 culverts, cleared, grubbed, and gravelled)		1,347 78
„ Maycock Settlement (general repairs)		774 13
.. Marysville-Kimberley-Sullivan Mine (built 9 culverts, cleared, grubbed, and gravelled)		3,641 67
„ Marysville-St. Mary Lake (general repairs)		1,000 00
.. Mission-Marysville (general repairs)		250 00
.. Mission-Perry Creek (general repairs)		100 00
.. Mission-Wasa (general repairs)		755 00
.. New-Four-mile Creek (general repairs)		331 45
.. Perry Creek-Crofters (built 9 culverts and general repairs)		1,000 00
.. St. Mary Settlement (general repairs)		1,457 04
.. Waldo Bridge-Gateway (general repairs)		288 05
.. Wardner-Gateway (general repairs)		200 00
.. Wasa-Skookumchuck (general repairs)		174 50
.. Wattsburg-Weaver Creek (general repairs)		219 00
.. Westport-Chamming's Island (general repairs)		433 00
„ Wycliffe-Cherry Creek (general repairs)		500 00
.. Wycliffe-Marysville (general repairs)		500 00
„ Yahk-Meadow Creek (built 6 culverts, grubbed and gravelled)		1,000 00
„ Yahk-Kingsgate (filled in wash-outs)		146 00
Trail—Fish Lake (clearing and general repairs)		129 25
„ Manchester Creek (general repairs)		69 50
„ Pekin up Moyie River (general repairs)		146 00
„ Shorty Creek (clearing and grubbing)		121 00
.. St. Mary's (North Fork) (general repairs)		90 00
„ St. Mary's (Main) (general repairs)		265 00
Carried forward	$	35,186 68

Brought forward	$ 35,186 68
CRANBROOK DISTRICT—*Concluded.*	
Trail—Whitefish (general repairs)	36 00
Streets—Marysville (built sidewalk, etc.)	234 26
„ Moyie (ditching and gravelling)	410 93
„ Wardner (sidewalk)	42 34
Supervision	2,644 54
General supplies	885 59
Total	$ 39,440 34
DELTA DISTRICT. (Vote 150—$22,500.)	
Road—Hjorth (general repairs)	$ 745 55
„ Interprovincial Highway (general repairs)	5,350 79
„ Johnston (widening and general repairs)	2,122 80
„ Kensington and Mud Bay (general repairs)	200 50
„ Marine Drive (general repairs)	71 00
„ Ocean Park and White Rock (general repairs)	2 45
„ Pacific Highway (general repairs)	5,011 68
„ River (general repairs)	679 25
„ Settlers (general repairs)	4,452 27
„ Yale (general repairs)	1,077 42
Supervision	1,900 83
General supplies	100 20
Total	$ 21,714 74
DEWDNEY DISTRICT. (Vote 151—$68,500.)	
Road—Agassiz-Rosedale Ferry (general repairs)	$ 23 00
„ Barker (general repairs)	213 00
„ Burns (general repairs)	54 00
„ Clark (general repairs)	249 10
„ Coast Meridian (general repairs)	51 00
„ Dewdney Trunk, Section 1 (general repairs)	3,417 48
„ Dewdney Trunk, Section 2 (oiled, sanded, grading, and general repairs)	5,130 90
„ Dewdney Trunk, Section 3 (general repairs)	3,004 75
„ Dewdney Trunk, Section 4 (grading, etc., and general repairs)	6,302 21
„ Dewdney Trunk, Section 5 (grading, etc., and general repairs)	6,287 70
„ Dewdney Trunk, Section 6 (clearing, grading, gravelling, and general repairs)	9,364 18
„ Dewdney Trunk, Section 7 (clearing, grading, gravelling, and general repairs)	1,711 16
„ Dewdney Trunk, Section 8 (clearing, grading, gravelling, and general repairs)	1,333 58
„ Dewdney Trunk, Section 9 (general repairs)	154 50
„ Hammond (general repairs)	43 75
„ Hammond Front (general repairs)	209 00
„ Haney Front (general repairs)	602 45
„ Hatzic Front (general repairs)	589 69
„ Hatzic Prairie (general repairs)	367 87
„ Hatzic Prairie-Sylvester (general repairs)	154 63
„ Homesteader's (general repairs)	145 25
Carried forward	$ 39,409 20

Brought forward		$ 39,409 20
DEWDNEY DISTRICT—*Concluded.*		
Road—Hyde and Barker (general repairs)	333 20	
„ Ioco (general repairs)	126 00	
„ Island (general repairs)	18 00	
„ Johnston (general repairs)	63 85	
„ Manson (general repairs)	208 85	
„ Mission-Stave (general repairs)	719 00	
„ Mission Townsite (general repairs)	5,338 08	
„ Morrow and Riley (general repairs)	45 00	
„ McDonald (general repairs)	449 75	
„ McIntyre (general repairs)	428 25	
„ McNeil, Rannie, and Campbell (general repairs)	445 55	
„ Neaves (general repairs)	35 00	
„ Newton (general repairs)	573 18	
„ Nicomen Island (general repairs)	665 80	
„ Pickles (general repairs)	1,486 89	
„ Pitt River (general repairs)	46 30	
„ Pitt River (south) (general repairs)	451 35	
„ Sharpe (general repairs)	112 75	
„ Shook and McEwan (general repairs)	1,148 30	
„ Silverdale (general repairs)	844 26	
„ Smith (general repairs)	33 00	
„ Thompson (general repairs)	195 00	
„ Townline (general repairs)	679 91	
„ Upper Pitt Valley (general repairs)	662 26	
„ Whonnock Front (general repairs)	1,243 77	
„ Wilson (general repairs)	303 75	
Trail—Belcarra (general repairs)	15 00	
„ Gilley's (clearing, grading, and general repairs)	1,288 85	
„ Sunnyside (clearing, grading, and general repairs)	1,870 45	
Streets—Melville, Port Hammond Townsite (ditching and general repairs)	222 55	
Bridge—Pitt River (general repairs)	357 17	
Ferry—Pitt River (general repairs)	8 35	
Fee for land—Department of Indian Affairs (Sumas Reserve)	5 00	
Log-jam—North Lillooet River	150 00	
Accident—Accident to Geo. Hallam	1,690 75	
Supervision	2,529 93	
General supplies	717 79	
Total		$ 64,922 09

ESQUIMALT DISTRICT. (Vote 152—$36,000.)

Road—Admiral's (general repairs)	$ 22 50	
„ Atkins (general repairs)	101 50	
„ Belmont (general repairs)	82 30	
„ Bennett, John (general repairs)	62 00	
„ Blanchard (general repairs)	30 00	
„ Burnside (general repairs)	39 50	
„ Copley's (clearing and general repairs)	442 05	
„ Colwood (general repairs)	798 45	
„ Craigflower (general repairs)	438 50	
„ Dalmaine (general repairs)	13 25	
Carried forward		$ 2,030 05

Brought forward		$ 2,030 05
ESQUIMALT DISTRICT—*Continued.*		
Road—Deloume (general repairs)		135 75
„ Duke's (general repairs)		65 25
„ East Sooke (clearing, grading, slashed brush, etc.)		1,888 50
„ Elliott's (general repairs)		129 00
„ Finlayson's Arm (general repairs)		458 00
„ Fisher's (general repairs)		39 50
„ Fitzgerald's (built 16 culverts and general repairs)		3,142 93
„ Fulton's (general repairs)		50 00
„ Gillespie (general repairs)		153 00
„ Glen Lake (general repairs)		279 00
„ Glinz (general repairs)		459 00
„ Goldstream (general repairs)		170 75
„ Goldstream Cross (general repairs)		339 20
„ Gordon River (general repairs)		469 25
„ Grant's (general repairs)		43 00
„ Gray's (general repairs)		50 00
„ Happy Valley (general repairs)		166 70
„ Happy Valley Cross (general repairs)		62 50
„ Harman's (general repairs)		375 25
„ Hart's (general repairs)		930 45
„ Helgesen's (general repairs)		23 00
„ Helmcken (general repairs)		12 00
„ Hughes (general repairs)		172 75
„ Island (general repairs)		49 00
„ Jordan River (general repairs)		495 50
„ Lighthouse (general repairs)		225 50
„ Lomax (general repairs)		25 00
„ Miller's (general repairs)		3 00
„ Metchosin (general repairs)		277 95
„ Metchosin Cross (general repairs)		228 00
„ Millstream (general repairs)		717 43
„ Millstream Lake (general repairs)		137 25
„ Munn's (general repairs)		211 75
„ Muir Creek (general repairs)		1,187 65
„ McNights (general repairs)		31 35
„ Neild's (general repairs)		30 00
„ Otter Point (general repairs)		270 70
„ Pachena Island (general repairs)		27 00
„ Pascoe (general repairs)		30 00
„ Pears (general repairs)		31 00
„ Phillips (general repairs)		183 00
„ Poirier's (general repairs)		186 70
„ Providence (general repairs)		147 00
„ Quarantine (general repairs)		100 00
„ Rocky Point (graded roadside, cut windfalls, and general repairs)		881 30
„ Rogers (general repairs)		133 50
„ Ross (general repairs)		446 25
„ San Juan (east) (widened 4,000 feet, filled in wash-out, etc.)		781 84
„ San Juan (west) (general repairs)		320 35
„ San Juan (south) (general repairs)		89 50
„ Shawnigan (general repairs)		63 00
„ Sawyer (general repairs)		50 00
Carried forward		$ 18,993 35

Brought forward	$ 18,993 35

ESQUIMALT DISTRICT—*Concluded.*

Road—Shield's (general repairs)	150 00
" Shirley (general repairs)	328 00
" Sooke (built 12 culverts, grading, clearing, cribbing, etc.)	3,237 50
" Sooke River (general repairs)	449 25
" Sooke (west) (general repairs)	923 32
" Station (general repairs)	79 60
" Taylor (general repairs)	30 00
" Thetis Lake (general repairs)	308 75
" Vancouver Island Trunk (filling in, cribbing, and general repairs)	3,182 45
" Victoria-Campbell River (general repairs)	2,267 80
" Whittaker (general repairs)	150 00
" Willow Grouse (general repairs)	42 50
" Wooten (general repairs)	114 80
" Wright's (general repairs)	630 40
Trail—Julius Barren (general repairs)	188 00
" Wilson Island (general repairs)	27 00
Avenue—French (general repairs)	232 75
" Leigh (general repairs)	201 10
" Muir (cut out windfalls)	5 00
" Wood (general repairs)	106 00
Supervision	3,152 75
General supplies	1,187 16
Total	$ 35,999 48

FERNIE DISTRICT. (Vote 153—$41,000.)

Road—Baynes Lake Estate (general repairs)	$ 211 00
" Bull River-Fort Steele (new work and general repairs)	1,112 00
" Bull River Falls (general repairs)	37 00
" Corbin-Flathead Valley (general repairs)	1,263 00
" Elk Valley (general repairs)	1,115 45
" Elkmouth-Gateway (general repairs)	906 50
" Elko-Baynes Lake (general repairs)	41 00
" Elko-Jaffray (general repairs)	344 00
" Elko-Morrissey (general repairs)	1,824 00
" Elko-Roosville (general repairs)	2,201 06
" Elko-Waldo (general repairs)	359 00
" Fernie Annex (general repairs)	1,281 80
" Fernie-Cedar Valley (general repairs)	44 50
" Fernie-Coal Creek (general repairs)	1,037 90
" Fernie-Hosmer (general repairs)	6,756 25
" Fernie-Morrissey (general repairs)	3,676 25
" Flagstone-Indian Village (general repairs)	54 00
" Flathead Valley (general repairs)	23 00
" Fort Steele-Canal Flats (general repairs)	320 75
" Fort Steele-Wild Horse (general repairs)	250 00
" Gateway Ferry (general repairs)	106 00
" Hosmer-Michel (general repairs)	457 50
" Jaffray-Wardner (general repairs)	121 00
" Michel-Crowsnest (general repairs)	3,230 75
" Michel Prairie (south) (general repairs)	348 50
Carried forward	$ 27,122 21

Brought forward	$ 27,122 21

FERNIE DISTRICT—*Concluded.*

Road—Wardner-Bull River (general repairs)	364 50
„ Waldo-Flagstone (general repairs)	33 00
„ Waldo-Gateway (general repairs)	636 46
„ Wardner-Waldo (general repairs)	110 00
„ West Fernie (general repairs)	1,606 05
Streets—Fort Steele (general repairs)	133 00
„ Hosmer (general repairs)	219 00
„ Michel (general repairs)	597 65
„ Natal (general repairs)	454 15
Log-jam—Elk River (general repairs)	23 75
Supervision	2,054 31
General supplies	914 32
Total	$ 34,268 40

GRAND FORKS DISTRICT. (Vote 154—$28,800.)

Road—Anaconda-Wellington (general repairs)	$ 93 00
„ Bear Creek-Pass Creek (general repairs)	125 00
„ Cascade-Fife (general repairs)	697 80
„ Cascade-Laurier (general repairs)	50 00
„ Cascade-Paulson (general repairs)	215 55
„ Central Camp-Spencer (general repairs)	100 00
„ Christian Lake (west side) (general repairs)	110 75
„ Deep Creek-Boundary (general repairs)	341 50
„ English Cove-Head of Lake (general repairs)	394 00
„ Fife-Christian Lake (general repairs)	90 00
„ Fourth of July-Phoenix (general repairs)	150 00
„ Granby Addition-Phoenix (general repairs)	31 50
„ Grand Forks-Cascade (south) (cribbing, excavating, filling in, and general repairs)	163 00
„ Grand Forks-Cascade (north) (cribbing, excavating, filling in, and general repairs)	3,805 40
„ Grand Forks-Carson (north) (cribbing, excavating, filling in, and general repairs)	1,531 65
„ Grand Forks-Carson (south) (general repairs)	402 50
„ Grand Forks-Eholt (general repairs)	242 20
„ Grand Forks-Franklin (excavating rock and general repairs)	9,369 10
„ Grand Forks-Hardy Mountain (general repairs)	83 75
„ Grand Forks-Pass Creek (general repairs)	371 25
„ Grand Forks-Summit City (general repairs)	2,097 75
„ Hartford Junction-Boundary-line (general repairs)	57 00
„ Moody Creek-Cascade (general repairs)	202 00
„ Morrissey Creek (west) (general repairs)	74 10
„ Norway Mountain-Paulson (general repairs)	147 75
„ Phoenix-Greenwood (north) (general repairs)	218 40
„ Phoenix-Greenwood (south) (general repairs)	36 00
„ Summit City-Phoenix (general repairs)	2,090 66
„ Sutherland Creek-Fife (general repairs)	373 50
„ Will Creek-Grand Forks (general repairs)	324 95
Trail—No. 3 (general repairs)	60 00
Carried forward	$ 24,050 06

Brought forward	$ 24,050 06
GRAND FORKS DISTRICT—*Concluded.*	
Approaches—Gilpin Bridge	553 90
Supervision	1,936 43
General supplies	458 60
Total	$ 26,998 99
GREENWOOD DISTRICT. (Vote 155—$19,800.)	
Road—Anaconda-No. 7 Mine (general repairs)	$ 285 25
„ Boundary Creek (1 culvert and general repairs)	254 00
„ Boundary Creek-Kettle River (general repairs)	97 00
„ Carron (grading and general repairs)	950 59
„ Deadwood-Copper Creek (11 culverts built, clearing, excavating, and gravelling)	3,060 95
„ East side of Kettle River (general repairs)	584 15
„ Eholt-Summit (4 culverts built and general repairs)	1,066 20
„ Greenwood-Eholt (6 culverts and general repairs)	1,832 95
„ Greenwood-Midway (general repairs)	1,056 78
„ Greenwood-Phoenix (general repairs)	758 50
„ Ingram Creek (general repairs)	720 73
„ Kerr Creek (general repairs)	271 50
„ Long Lake-Jewell Mine (general repairs)	93 00
„ Lynn Creek (general repairs)	1,031 60
„ Main Kettle River (general repairs)	932 55
„ Midway-Rock Creek (gravelling and general repairs)	2,030 99
„ Myers Creek (general repairs)	447 10
„ McCarren Creek (general repairs)	675 60
„ Nicholson Creek (general repairs)	717 50
„ Phoenix-Greenwood (general repairs)	31 00
„ Twin Creek (general repairs)	312 25
River-protection—West Fork, Kettle River (general repairs)	105 50
Supervision	1,407 85
General supplies	578 09
Total	$ 19,301 63
ISLANDS DISTRICT. (Vote 156—$27,000.)	
Gabriola Island.	
Road—East (general repairs)	$ 59 00
„ Easthom (general repairs)	746 00
„ Main (south) (general repairs)	488 50
„ Silver-Law (general repairs)	49 00
„ South Centre (general repairs)	251 50
„ Taylor Bay (general repairs)	252 00
„ West (general repairs)	40 50
General supplies	60 41
Galiano Island (North).	
Road—Main (north) (general repairs)	517 00
„ Main (south) (general repairs)	75 00
„ McClure's (general repairs)	98 50
„ North Galiano Pass (general repairs)	176 50
Carried forward	$ 2,813 91

Brought forward	$ 2,813 91
ISLANDS DISTRICT—*Continued.*	
Galiano Island (North)—Concluded.	
Road—Wharf (general repairs)	132 50
Trail—North (general repairs)	35 00
„ Retreat Cove (general repairs)	202 00
General supplies	196 60
Galiano Island (South).	
Road—Main (clearing, grading, and general repairs)	621 50
Trail—Bluff (general repairs)	238 50
„ Bural (general repairs)	249 00
„ North End (general repairs)	156 00
General supplies	105 73
Mayne Island.	
Road—David (general repairs)	66 50
„ Deacon's (general repairs)	85 50
„ Gallagher's (general repairs)	48 00
„ Horton Bay (general repairs)	109 00
„ Main (general repairs)	359 50
„ Point Comfort (general repairs)	193 00
„ Village Bay (general supplies)	155 50
General supplies	60 60
North Saanich.	
Road—Admiral's (general repairs)	21 00
„ Amelia (general repairs)	7 00
„ Arbutus (general repairs)	145 00
„ Beauford (general repairs)	15 25
„ Birch (general repairs)	313 50
„ Breed's (general repairs)	62 50
„ Bullen's (general repairs)	100 25
„ Centre (general repairs)	351 50
„ Clayton (new) (general repairs)	56 00
„ Cross (general repairs)	13 00
„ Davis (general repairs)	159 00
„ Deep Cove (clearing, grading, and general repairs)	647 46
„ Deep Cove (new) (removing logs, blasting, and burning stumps, etc.)	526 50
„ Downey's (new) (general repairs)	122 50
„ Downey's (old) (general repairs)	136 50
„ Downey's (front) (general repairs)	41 00
„ East (grading, grubbed, and general repairs)	1,058 02
„ Horth's Cross (general repairs)	80 00
„ Indian Village (general repairs)	10 00
„ Marine Drive (general repairs)	210 52
„ Mount Newton (general repairs)	131 50
„ School Cross (general repairs)	7 62
„ West (general repairs)	351 73
Avenue or Street—Beacon (grading and general repairs)	269 75
„ „ Deacon (general repairs)	11 00
„ „ Fifth (general repairs)	67 10
„ „ Henry (general repairs)	76 25
„ „ Second (general repairs)	17 75
Carried forward	$ 10,837 54

Brought forward	$ 10,837 54
ISLANDS DISTRICT—*Continued.*	
North Saanich—Concluded.	
Avenue or Street—Sidney (general repairs)	23 50
„ „ Third (general repairs)	120 50
Sidewalks—Sidney	33 00
General supplies	530 25
Pender Island (North).	
Road—Bedwell Harbour (general repairs)	284 50
„ Colston's (general repairs)	63 00
„ Deep Bay (grubbed, graded, and general repairs)	689 25
„ Port Washington (general repairs)	119 50
„ Wallace Point-Hope Bay (general repairs)	356 25
General supplies	44 70
Pender Island (South).	
Road—Boulder (general repairs)	107 50
„ Eastside (general repairs)	18 00
„ Gordon's (general repairs)	51 00
„ Main (general repairs)	15 50
„ Razor Point (general repairs)	18 00
„ Spalding (general repairs)	318 50
General supplies	84 03
Pender Island (West).	
Road—Davidson's (general repairs)	145 75
„ Hamilton (general repairs)	251 25
„ James Point (general repairs)	264 50
„ Otter Bay (general repairs)	244 00
„ Otter Bay-Port Washington (general repairs)	355 50
„ Port Washington (general repairs)	181 25
„ Simpson's (general repairs)	9 00
General supplies	62 40
Saltspring Island (North).	
Road—Beddie (general repairs)	122 75
„ Bossman's (general repairs)	80 00
„ Broadwell (general repairs)	78 00
„ Canal (general repairs)	25 00
„ Collins and Crofter's (general repairs)	45 00
„ Cranberry (general repairs)	220 00
„ Divide (general repairs)	243 50
„ Dodd's (general repairs)	5 00
„ Fernwood (general repairs)	38 00
„ Le Page (general repairs)	10 00
„ Lower Ganges (general repairs)	286 50
„ Mansell's (general repairs)	155 00
„ McFadden's (general repairs)	10 00
„ New (general repairs)	250 00
„ Nobbs (general repairs)	30 00
„ North End (general repairs)	224 00
„ Rainbow (general repairs)	127 50
„ Robinson's (general repairs)	54 00
Carried forward	$ 17,212 42

Brought forward		$ 17,212 42
ISLANDS DISTRICT—*Concluded.*		
Saltspring Island (North)—Concluded.		
Road—Scott's (general repairs)	20 00	
„ Toynbee (general repairs)	26 00	
„ Tripp's (general repairs)	100 00	
„ Upper Ganges (general repairs)	230 75	
„ Vesuvius (general repairs)	207 00	
„ Walker's Hook (general repairs)	48 00	
General supplies	429 31	
Saltspring Island (South).		
Road—Beaver Point (grading, grubbing, and general repairs)	509 50	
„ Burgoyne Bay (general repairs)	417 50	
„ Cranberry (general repairs)	48 00	
„ Cushion (general repairs)	42 00	
„ Garner's (general repairs)	18 00	
„ Hill and Brantford (general repairs)	200 00	
„ Isabella Point (general repairs)	152 50	
„ Lasseter's (general repairs)	28 00	
„ New Mountain (general repairs)	955 50	
General supplies	108 77	
Saturna Island.		
Road—Deep Bay (general repairs)	76 50	
„ Payne (general repairs)	146 00	
General supplies	86 70	
Thetis Island.		
Road—Andrews (general repairs)	103 00	
„ Lawrence (general repairs)	20 00	
„ Nixon (general repairs)	39 00	
„ Thetis (general repairs)	373 00	
„ Wharf (general repairs)	40 00	
General supplies	18 70	
Launch—"Starlight"	1,519 87	
Supervision	1,719 75	
General supplies	408 56	
Total		$ 25,304 33
KAMLOOPS DISTRICT. (Vote 157—$72,000.)		
Road—Adams Lake and District (general repairs)		$ 415 00
„ Albas (clearing and general repairs)		333 65
„ Barriere River District (clearing, grubbed, and excavating rock)		784 54
„ Benton-Fish Lake (general repairs)		137 07
„ Blind Boy-Eagle Bay (clearing, grading, and gravelling)		1,571 04
„ Bowie-Pitt-Malakwa (general repairs)		486 91
„ Bulman-Fraser-Palmer (general repairs)		233 50
„ Busc Meadows (general repairs)		282 08
„ Campbell-Chase (general repairs)		7 10
„ Campbell Creek (general repairs)		571 73
„ Campbell Meadows (general repairs)		241 25
„ Cannell (general repairs)		12 50
Carried forward		$ 5,076 37

Brought forward	$	5,076 37
KAMLOOPS DISTRICT—*Continued.*		
Road—Celista (cleared, grubbed, and general repairs)		1,260 85
„ Chase Creek (cleared, grubbed, and general repairs)		3,708 94
„ Chase-Squilax (general repairs)		41 50
„ Chase Town (general repairs)		856 64
„ Cherry Creek Station (general repairs)		25 00
„ China Valley (general repairs)		329 24
„ Clearwater (general repairs)		697 11
„ Coal Creek (general repairs)		127 25
„ Coal Creek-Sugar Loaf (general repairs)		40 77
„ Copper Creek (general repairs)		351 90
„ Copper Creek-C.N.R. Siding (general repairs)		157 00
„ Craigellachie (local) (general repairs)		318 45
„ Craigellachie-Taft (general repairs)		23 80
„ Douglas Lake-Grande Prairie (general repairs)		451 07
„ Ducks-Grande Prairie-Glenemma (cleared, graded, grubbed, and general repairs)		3,207 50
„ Duck Range (general repairs)		1,141 33
„ Duck Station-Disedero (general repairs)		50 00
„ Edith Lake (general repairs)		113 00
„ Five-mile Creek (general repairs)		387 50
„ Ferguson (general repairs)		250 00
„ Goose Lake (general repairs)		57 00
„ Hadlow (general repairs)		25 00
„ Harpers Camp (general repairs)		141 78
„ Harpers Valley (general repairs)		302 50
„ Hembre Mountain (general repairs)		243 50
„ Hudson Bay Gulch (general repairs)		31 30
„ Jackson (general repairs)		76 70
„ Kamloops-Nicola (cleared, graded, and general repairs)		1,272 70
„ Kamloops-Savona (general repairs)		726 84
„ Kamloops-Shuswap (general repairs)		1,252 79
„ Kamloops-Tranquille-Criss Creek (general repairs)		524 65
„ Lawder-Hawkins (general repairs)		42 00
„ Little Fort-Horse Lake (general repairs)		966 75
„ Lloyd Creek (general repairs)		140 00
„ Long Lake (built 12 culverts, cleared, grubbed, and general repairs)		1,192 37
„ Louis Creek (built 8 culverts and general repairs)		1,712 94
„ Malakwa (general repairs)		727 49
„ Malakwa-Craigellachie-Taft (general repairs)		259 40
„ Malakwa-Craigellachie (general repairs)		681 49
„ Malakwa-Tradgett (general repairs)		253 00
„ Mamete Lake (general repairs)		78 75
„ Martin's Prairie (general repairs)		407 65
„ Millard-Lazard (general repairs)		141 00
„ Moberley-Tappen (general repairs)		208 12
„ McLeod Range (fenced with barbed wire)		121 08
„ North Thompson (east side) (cleared, grubbed, and general repairs)		4,479 75
„ North Thompson (west side) (cleared, grubbed, and general repairs)		2,800 01
„ Notch Hill-Blind Boy-Greer (general repairs)		95 00
„ Notch Hill-Tappen (general repairs)		875 10
„ Notch Hill West-Squilax (general repairs)		262 50
„ One-mile Creek (general repairs)		172 00
Carried forward	$	38,886 38

Brought forward	$ 38,886 38
KAMLOOPS DISTRICT—*Concluded.*	
Road—Oxley Valley (general repairs)	97 80
„ Paxton Valley (general repairs)	350 95
„ Peterson-Betts (general repairs)	572 55
„ Quilchena-Minna Lake (general repairs)	51 00
„ Reserve Creek (general repairs)	920 56
„ Rose Hill (old) (general repairs)	135 00
„ Rose Hill (new) (general repairs)	665 58
„ Salmon Arm Municipality (general repairs)	96 86
„ Scotch Creek (general repairs)	584 50
„ Seymour Arm (general repairs)	321 95
„ Seymour River (general repairs)	104 00
„ Shuswap-Kault-Salmon Arm (general repairs)	281 29
„ Siwash Creek (general repairs)	257 25
„ Solsqua-Bowie-South Side of River (general repairs)	1,594 41
„ Solsqua-Bowie from Bridge across North Branch of Eagle River (general repairs)	143 00
„ Solsqua-Craigellachie-Taft (general repairs)	443 50
„ Solsqua-Samuelson (general repairs)	245 50
„ Solsqua-Sicamous (general repairs)	921 28
„ South Thompson (general repairs)	371 12
„ Squilax (general repairs)	53 00
„ Sullivan-Peacock (general repairs)	206 00
„ Sullivan Valley (general repairs)	51 37
„ Sullivan Valley and C.P.R. Siding (built 5 culverts, clearing, grading, etc.)	983 50
„ Summers Creek (built 6 culverts, clearing, grading, excavating)	2,343 05
„ Tappen-Carlin (general repairs)	253 50
„ Todd-Duck Meadow (general repairs)	187 66
„ Venn (general repairs)	13 00
„ Warren Creek (general repairs)	92 00
„ White Lake (general repairs)	657 10
„ Wolsey (general repairs)	25 00
Trail—Seymour Arm (general repairs)	516 75
„ Tunbridge Creek (general repairs)	328 00
Ferry—Birch Island (general repairs)	542 81
Supervision	3,458 86
General supplies	963 56
Total	$ 57,719 64
By credits	526 00
Total	$ 57,193 64

KASLO DISTRICT. (Vote 158—$36,000.)

Road—Ainsworth (north) (general repairs)	$ 165 75
„ Ainsworth (south) (general repairs)	357 00
„ Argenta (general repairs)	467 00
„ Beach (general repairs)	171 00
„ Blue Bell (general repairs)	433 05
„ Blue Bell Lateral (general repairs)	304 60
„ Burden (general repairs)	15 00
„ Canning (general repairs)	60 00
Carried forward	$ 1,973 40

Brought forward	$	1,973 40
KASLO DISTRICT—*Continued.*		
Road—Central (general repairs)		301 50
„ Crawford Creek (repairs to bridges, etc., after wash-outs and general repairs)		1,408 43
„ Ferguson-Beaton (general repairs)		118 00
„ Gardner (general repairs)		264 72
„ Hope (general repairs)		157 50
„ Houston (general repairs)		9 00
„ Howser-Argenta (constructing extension, riprapping, excavating, etc.)		4,139 65
„ Jackson Creek (general repairs)		944 66
„ Kaslo (north) (general repairs)		288 25
„ Kaslo (south) (general repairs)		540 78
„ Kaslo (South Fork) (general repairs)		68 13
„ Kaslo Creek (South Fork (general repairs and widening road)		4,209 36
„ Kaslo Creek (North Fork) (general repairs)		308 70
„ Kohle's (general repairs)		574 70
„ Lynchville (general repairs)		246 01
„ Meadow Creek (general repairs)		20 00
„ Mirror Lake (general repairs)		57 00
„ McLachlan's (general repairs)		55 00
„ Peters (general repairs)		18 00
„ Pilot Bay (general repairs)		37 00
„ Queen's Bay-Balfour (general repairs)		282 25
„ Queen's Bay-Coffee Creek (general repairs)		907 60
„ Queen's Bay (general repairs)		6 00
„ Trout Lake-Beaton (general repairs)		387 50
„ Trout Lake-Ten-mile (clearing out mud-slide, regrading, gravelling, general repairs)		1,439 80
„ Trout Lake (2 miles below Ferguson) (general repairs)		108 00
„ Utica (general repairs)		704 18
„ Wakefield (general repairs)		10 13
„ Wilmot (widening road, excavating, and filling in)		2,816 09
Trail—American (general repairs)		18 00
„ Arala (general repairs)		36 00
„ Bismarck (general repairs)		78 00
„ Brown Creek (general repairs)		9 00
„ Canyon Creek (general repairs)		48 50
„ Cascade Creek (general repairs)		240 45
„ Circle City-Old Gold (grading and general repairs)		1,544 75
„ Comfort (general repairs)		100 00
„ Cooper Creek (general repairs)		25 00
„ Crawford Creek (general repairs)		135 00
„ Duncan River (west) (general repairs)		552 50
„ Ethel (general repairs)		37 00
„ Fidelity Creek (general repairs)		306 00
„ Five-mile (general repairs)		30 00
„ Flint (general repairs)		24 50
„ Gainor Creek (general repairs)		63 00
„ Gertrude Creek (general repairs)		157 00
„ Gold Gulch (general repairs)		145 50
„ Great Britain (general repairs)		24 00
„ Great Northern (general repairs)		184 50
„ Grey Creek (general repairs)		482 75
Carried forward	$	26,642 79

Brought forward	$ 26,642 79

KASLO DISTRICT—*Concluded.*

Trail—Hall Creek (general repairs)	347 10
„ Hammil Creek (general repairs)	70 50
„ Healey Creek (general repairs)	518 00
„ Howser Creek (general repairs)	75 00
„ Johnson Basin (general repairs)	199 50
„ Keen's (general repairs)	6 50
„ Lake Creek (general repairs)	14 50
„ Lardeau River (east) (general repairs)	99 00
„ Lardeau River (west) (general repairs)	160 50
„ Lardeau River (South Fork) (general repairs)	66 00
„ Lucky Boy (general repairs)	795 95
„ Martin (general repairs)	24 50
„ Meadow Creek (general repairs)	36 00
„ Montezuma (general repairs)	86 50
„ Murphy Creek (general repairs)	100 00
„ Nettie L.-Florence Mine (general repairs)	70 50
„ Nobbs (general repairs)	200 50
„ Panama (general repairs)	17 00
„ Poplar Creek (general repairs)	113 50
„ Seranton (general repairs)	25 00
„ Silver Cup (general repairs)	15 00
„ Silver Spring (general repairs)	200 00
„ Silver Glance (general repairs)	25 00
„ Silver Hill (general repairs)	59 00
„ Sturgess Creek (reconstructing upper portion, cutting out brush, and building new portion)	768 85
„ Swede Group (general repairs)	12 00
„ Tenderfoot Creek (general repairs)	51 00
„ Triune (general repairs)	85 00
„ True Blue (general repairs)	1 50
„ Trout Lake (east) (general repairs)	516 50
„ Whitewater (general repairs)	69 00
„ Woodbury Creek (North Fork)	93 50
Streets—Ainsworth (general repairs)	80 25
„ Kaslo (general repairs)	12 50
„ Lardeau (general repairs)	138 66
„ Trout Lake (general repairs)	144 00
Supervision	2,529 60
General supplies	557 66
Total	$ 35,027 86

LILLOOET DISTRICT. (Vote 159—$65,000.)

Eastern Division.

Road—Big Bar (general repairs)	$ 794 85
„ Big Bar Mountain (built ¾ mile and general repairs)	1,129 17
„ Big Bar Lake-Beaver Dam-59-Mile House (cut out timber and slashed)	383 00
„ Bonaparte Valley (general repairs)	533 40
„ Bridge Creek-Horse Lake-Fish Lake (general repairs)	580 00
„ Canim Lake (built 8 culverts and general repairs)	1,122 25
„ Canim Lake-Clearwater (general repairs)	15 00
Carried forward	$ 4,557 67

Brought forward	$ 4,557 67
LILLOOET DISTRICT—*Continued.*	
Eastern Division—Concluded.	
Road—Canoe Creek-Church Creek (general repairs)	231 00
" Cariboo Main (general repairs)	6,063 90
" Clinton-Alkali (general repairs)	1,078 95
" Clinton-Alkali via Kelly Lake (general repairs)	633 43
" Clinton Station (new work, built 1 mile diversion at De Laney and Barker Ranches; constructed road to station)	2,839 63
" Criss Creek (new work; extended and built 3 miles)	3,190 94
" Cross Bar (general repairs)	9 00
" Deadman Creek (general repairs)	50 00
" Dog Creek-Churn Creek (general repairs)	106 25
" Dowse (general repairs)	140 50
" Fogg Creek, off Copper Creek (general repairs)	50 00
" Hat Creek (general repairs)	70 50
" High Bar (general repairs)	72 00
" Horsefly-Timothy Mountain (general repairs)	208 00
" Mound-Moon Lake (new work; built 1 mile diversion, grade, etc.)	717 46
" Mound-Upper Bonaparte (general repairs)	57 00
" McKinley-Hamilton-Ogden (general repairs)	90 00
" McKinley-Horsefly (general repairs)	146 00
" North Bonaparte (general repairs)	658 55
" 127-Mile House-Spring House (general repairs)	90 00
" Raphael-Pigeon-Meason (general repairs, cutting out windfalls, and cutting out after storm)	744 40
" Rayson-Beaver Dam (general repairs)	69 15
" Rayson-Big Bar Lake (general repairs)	177 25
" Roe Lake (general repairs)	216 24
" Scottie Creek (general repairs)	141 00
" 70-Mile House-Green Lake (general repairs)	33 50
" 70-Mile House-Green Lake-Porter's Ranch (general repairs)	77 50
" 70-Mile House-Bonaparte Flats (general repairs)	363 00
" Timothy Mountain (general repairs)	48 00
" Upper Deadman Creek (general repairs)	517 20
" Upper Dog Creek (general repairs)	168 50
" Watch Lake (general repairs)	250 25
" Woods Box-High Bar (general repairs)	94 50
Streets—Clinton (general repairs)	169 25
Supervision	2,114 10
General supplies	1,639 74
Total	$ 27,884 36
Western Division.	
Road—Big Creek and branches (general repairs and diversion)	$ 896 58
" Big Bar-Empire Valley (general repairs)	214 50
" Bridge River (widening Mission Mountain turntables, building crib, etc.)	6,682 75
" Cayoosh Creek (general repairs)	65 50
" Chilanko Forks-Tatla Lake (general repairs)	1,147 38
" Chilcotin Main (gravelled and general repairs)	2,043 66
" Churn Creek-Hanceville (grubbed, stoned, and general repairs)	2,016 88
Carried forward	$ 13,067 25

Brought forward	$ 13,067 25

LILLOOET DISTRICT—*Concluded.*

Western Division—Concluded.

Road—Clinton-Alkali via Kelly Lake (general repairs)	590 25
„ Empire Valley (general repairs)	814 87
„ Fountain Valley (general repairs)	861 20
„ Jones-Dickey (filled wash-outs and general repairs)	1,480 15
„ Lillooet-Clinton (cleaned out slides and general repairs)	1,597 58
„ Lillooet-Lytton (cleaned out slides and general repairs)	2,009 02
„ Lillooet-Seton Lake (general repairs)	138 50
„ Lillooet Station (general repairs)	554 10
„ Marble Canyon (general repairs)	439 25
„ North Fork Canyon (general repairs)	649 75
„ North Fork (general repairs)	703 52
„ Old Cariboo (general repairs)	134 00
„ Pemberton Range (general repairs)	423 75
„ Riske Creek-Gang Ranch (general repairs)	48 00
„ Sheep Creek (general repairs)	717 50
„ Tatla Lake (general repairs)	12 21
Trail—Anderson (general repairs)	262 45
„ Bridge River Canyon (general repairs)	44 00
„ Halmore Cadwallader Creek (general repairs)	45 00
„ McGillivray (general repairs)	36 00
„ North Fork (general repairs)	12 00
„ Spokane Mine's (general repairs)	33 00
„ Texas Creek (general repairs)	100 00
„ Watson Bar Creek (general repairs)	57 00
„ West of Fraser (general repairs)	261 25
Streets—Lillooet (general repairs)	16 18
Supervision	780 45
General supplies	353 14
Total	$ 26,241 37
Grand total	$ 54,125 73

NANAIMO CITY DISTRICT. (Vote 160—$9,000.)

Road—Bates-Malpas-Fiddick (general repairs)	$ 202 00
„ Biggs (general repairs)	19 00
„ Brechin (general repairs)	106 00
„ Departure Bay (general repairs)	359 50
„ Extension (general repairs)	50 00
„ Fielding and House (general repairs)	29 00
„ Five-acre Lots (general repairs)	1,428 75
„ Frew *et al.* (general repairs)	13 00
„ Gordon *et al.* (general repairs)	357 00
„ Harewood (general repairs)	191 50
„ Jingle Pot (general repairs)	326 26
„ Marshall's (general repairs)	20 00
„ Myers (general repairs)	21 50
„ Mount View Townsite, No. 15 (general repairs)	8 00
„ Nichol (general repairs)	185 20
„ Newcastle Townsite (general repairs)	558 20
„ Northfield (general repairs)	181 00
Carried forward	$ 4,055 91

Brought forward	$	4,055 91
NANAIMO CITY DISTRICT—*Concluded.*		
Road—North Wellington (general repairs)		1 50
„ Old Victoria (general repairs)		100 00
„ Raine's (general repairs)		264 00
„ South Wellington (general repairs)		638 50
„ Stewart *et al.* (general repairs)		129 00
„ Suburban (general repairs)		66 30
„ Victoria-Campbell River, No. 22 (general repairs)		1,040 15
„ Victoria-Campbell River, No. 23 (general repairs)		420 00
„ Wellington (general repairs)		180 00
„ York *et al.* (general repairs)		77 00
Supervision		528 33
General supplies		152 57
Total	$	7,653 26
NEWCASTLE DISTRICT. (Vote 161—$24,300.)		
Road—Adshead *et al.* (general repairs)	$	41 00
„ Andres *et al.* (general repairs)		89 00
„ Barnes (general repairs)		46 00
„ Beck's (general repairs)		776 00
„ Bennie's (general repairs)		18 00
„ Benson's (general repairs)		8 50
„ Benton, Page, and Dool's (general repairs)		231 50
„ Carmichael's (general repairs)		134 00
„ Christie and Wallace (general repairs)		52 00
„ Code's (general repairs)		125 25
„ Crane's (general repairs)		18 00
„ Cross (general repairs)		146 00
„ Departure Bay (general repairs)		7 00
„ East Wellington (general repairs)		7 00
„ Extension, No. 7 (general repairs)		648 50
„ Gillfillan's (general repairs)		25 00
„ Graham's (general repairs)		24 00
„ Greenaway's (general repairs)		24 00
„ Haslam's (general repairs)		188 50
„ Heemer and Carlson's (general repairs)		203 50
„ Holden and Corso (general repairs)		181 00
„ Holland's (general repairs)		39 00
„ Jingle Pot (new work and general repairs)		2,145 20
„ Juriet's (general repairs)		30 00
„ Lake (general repairs)		297 75
„ Lockner's (general repairs)		107 50
„ Meredith's (general repairs)		126 75
„ Michael's (general repairs)		29 20
„ Michael and Dool's (extension and general repairs)		1,440 05
„ Michael and Hill's (general repairs)		68 00
„ Morden's (general repairs)		177 50
„ McLean's (general repairs)		164 00
„ McNiven's (general repairs)		3 00
„ New roads, No. 72, Beban's (general repairs)		884 95
„ Old South Wellington (general repairs)		102 00
„ Old Victoria (general repairs)		151 00
Carried forward	$	8,759 65

Brought forward	$	8,759 65

NEWCASTLE DISTRICT—*Concluded.*

Road—Quennell's (general repairs)	246 00
„ Patterson's (general repairs)	6 00
„ Richardson's (general repairs)	44 00
„ Scannell's (clearing, grading, and excavating)	3,501 30
„ South Forks (general repairs)	74 00
„ South Wellington (general repairs)	542 50
„ Street's (general repairs)	24 00
„ Takala's (general repairs)	21 00
„ Thatcher's (general repairs)	88 00
„ Thomas (general repairs)	638 90
„ Tiesu's (general repairs)	44 00
„ Victoria-Campbell River, No. 56 (general repairs)	15 00
„ Victoria-Campbell River, No. 57 (general repairs)	1,966 65
„ Victoria-Campbell River, No. 58 (general repairs)	2,525 00
„ Victoria-Campbell River, No. 59 (general repairs)	531 75
„ Vowel's (general repairs)	142 50
„ Waterloo (general repairs)	582 25
„ Weaver's (general repairs)	272 50
„ Weigle's (general repairs)	9 50
„ White's (general repairs)	22 00
Trail—Mount Butte (general repairs)	63 00
„ Sutton's (general repairs)	123 00
Avenue—Fourth Avenue (general repairs)	173 00
„ Third Avenue (general repairs)	81 00
Supervision	1,703 99
General supplies	334 85
Total	$ 22,535 34

OKANAGAN DISTRICT. (Vote 162—$79,000.)

Alvaston Section.

Road—Alvaston (general repairs)	$	3 00
„ Kelowna (general repairs)		17 85
„ Oceola-Rainbow (general repairs)		291 75
„ Okanagan Centre (general repairs)		18 00
„ Reiner's Gulch (general repairs)		190 50
„ Winfield Subdivision (general repairs)		107 75

Bear Creek Section.

Road—Big Horn (general repairs)	82 05
„ Westside and branches (general repairs)	1 25

Cherry Creek Section.

Road—Creighton Valley (general repairs)	56 25
„ Richlands (general repairs)	200 00
„ Sugar Lake (general repairs)	163 75
„ Vernon-Monashee (general repairs)	360 75
„ Coldstream Municipality	3,000 00

Enderby Section.

Road—Bass (general repairs)	190 00
„ Belgo Subdivision (general repairs)	346 00
Carried forward	$ 5,088 90

Brought forward	$ 5,088 90
OKANAGAN DISTRICT—*Continued.*	
Enderby Section—Concluded.	
Road—Deep Creek (general repairs)	28 50
„ Enderby-Salmon Arm (general repairs)	1,979 90
„ Enderby-Salmon River (general repairs)	64 50
„ Enderby-Fortune (general repairs)	124 50
„ Enderby-Vernon (general repairs)	152 00
„ Glen Mary (general repairs)	10 00
„ Gunter-Ellison (general repairs)	140 00
„ Loon Lake (general repairs)	166 00
Kelowna Section.	
Road—Benvoulin (general repairs)	15 00
„ Black Mountain (new extension)	890 63
„ Canyon Creek (general repairs)	138 50
„ Glenmore and branches (general repairs)	1,216 35
„ Glenmore-Ellison (general repairs)	35 00
„ Guisachan (general repairs)	5 00
„ Hydraulic Creek (general repairs)	257 00
„ Joe Ritchie Canyon (general repairs)	515 75
„ K.L.O. (general repairs)	882 34
„ Killeyney Wharf (general repairs)	16 00
„ Mission (general repairs)	209 92
„ Mission Creek (general repairs)	516 25
„ Mission-McClure (general repairs)	151 25
„ Okanagan Centre (general repairs)	12 00
„ Rainbow (general repairs)	89 00
„ Rutland (general repairs)	142 90
„ Sawmill Creek (general repairs)	27 50
„ South Kelowna (general repairs)	4 00
„ South Okanagan (general repairs)	368 50
„ S.K.L. Bench (general repairs)	185 75
„ Vernon-Kelowna (general repairs)	469 36
„ Westside (general repairs)	121 87
„ Woods Lake Fruit Lots (general repairs)	25 13
Lumby Section.	
Road—Byers (general repairs)	50 00
„ Creighton Valley (general repairs)	422 05
„ Lumby-Mable Lake (general repairs)	327 25
„ Mable Lots (general repairs)	184 46
„ Miller's (general repairs)	32 50
„ Rollings Lake (general repairs)	336 25
„ St. Paul's Mine (general repairs)	60 00
„ Sugar Lake (general repairs)	13 00
„ Vernon-Monashee (general repairs)	949 70
„ Ward's (general repairs)	81 00
„ Whitevale (general repairs)	158 00
Avenue—Shuswap Ave. South (general repairs)	32 50
Streets—Lumby Village (general repairs)	6 25
Mabel Lake Section.	
Road—Brash-Allan (general repairs)	201 26
„ Enderby-Mabel Lake (general repairs)	917 75
Carried forward	$ 17,821 27

Brought forward	$ 17,821 27
OKANAGAN DISTRICT—*Continued.*	
Mabel Lake Section—Concluded.	
Road—Enderby-Mara (general repairs)	71 00
„ Inch-Logan (general repairs)	64 50
„ Mabel Lake (general repairs)	378 87
„ Mara and branches (general repairs)	481 00
„ Miska Branch-Trinity Valley (general repairs)	368 50
„ Trinity Valley (general repairs)	150 52
Mara Section.	
Road—Carlin Orchards (general repairs)	88 75
„ Enderby and branches (general repairs)	665 25
„ Grindrod School (general repairs)	91 00
„ Grindrod-Westside (3,000 feet of new road)	770 10
„ Mara Lake (general repairs)	559 75
„ Monk's (general repairs)	84 00
„ Mud Lake (general repairs)	145 13
„ McManus (general repairs)	18 00
„ Riverside (general repairs)	80 25
Naramata Section.	
Road—Camp Creek (general repairs)	27 50
„ Lake Shore (general repairs)	77 25
„ Naramata Fruit Lots (general repairs)	636 40
„ Naramata-Penticton (gravelling and general repairs)	695 68
„ North Naramata (general repairs)	32 50
„ Station (general repairs)	109 00
„ Wilson's (general repairs)	21 00
Trail—Kelowna (general repairs)	130 00
Streets—Naramata Village (general repairs)	404 75
Peachland Section.	
Road—Deep Creek (general repairs)	85 00
„ Garnet Valley (general repairs)	97 50
„ Lake Shore (general repairs)	702 25
„ Peachland-Princeton (general repairs)	92 37
„ Summerland (general repairs)	2,961 51
„ Trepanier Creek (general repairs)	141 75
„ Westside (new construction and general repairs)	1,044 18
Penticton Section.	
Road—Penticton-Carmi (general repairs)	58 50
„ Penticton-Trout Creek (general repairs)	495 75
Rainbow Section.	
Road—Clarke-McClure (general repairs)	15 00
„ Dry Valley (general repairs)	15 00
„ Oceola-Rainbow (general repairs)	33 00
„ Okanagan Centre (general repairs)	40 00
„ Old Mission (general repairs)	15 00
„ Vernon-Kelowna (general repairs)	282 46
„ Winfield and Subdivision (general repairs)	218 00
„ Woods Lake Fruit Lots (general repairs)	24 50
Carried forward	$ 30,293 77

Brought forward	$ 30,293 77
OKANAGAN DISTRICT—*Continued.*	
Salmon River Section.	
Road—Armstrong (general repairs, gravelling, etc.)	154 50
„ Fowler-Willett (general repairs, gravelling, etc.)	2 50
„ Kamloops (general repairs, gravelling, etc.)	206 25
„ Salmon Valley (general repairs, gravelling, etc.)	67 15
Shuswap Section.	
Road—Lumby-Mabel Lake (building new piece of road around Rock Point and general repairs)	1,785 83
„ Mabel Lake and branches (general repairs)	1,386 95
„ Sigalet Cut-off (general repairs)	75 00
„ Squaw Valley (general repairs)	88 25
Accident—Holland's accident	766 50
Silver Creek Section.	
Road—Fowler-Willett (grubbed, graded, etc.)	1,323 00
„ Salmon River Valley (general repairs)	134 14
Spallumcheen Section.	
Road—Spallumcheen Municipality	3,976 49
Summerland Section.	
Road—Garnet Valley (general repairs)	138 00
„ Lake Shore (general repairs)	237 00
„ Peachland (general repairs)	1,409 50
„ Penticton-Summerland (gravelling)	1,204 10
„ Westside-Lake Shore (general repairs)	765 50
Trinity Section.	
Road—Bobbie Burns (general repairs)	285 87
„ Trinity Valley (general repairs)	878 11
Trout Creek Section.	
Road—Bald Range (general repairs)	38 00
„ Bathville (general repairs)	33 00
„ Deans (general repairs)	12 50
„ Faulder and branches (general repairs)	76 50
„ Meadow Valley (general repairs)	797 50
„ Shingle Creek (new construction)	248 50
„ Springs (general repairs)	47 50
„ Trout Creek (new construction)	2,004 23
Vernon Section.	
Road—Armstrong-Vernon (general repairs)	12 00
„ Black Mountain (general repairs)	6 00
„ Blue Nose (general repairs)	716 45
„ B.X. Subdivision (general repairs)	240 25
„ Coldstream-Vernon (general repairs)	12 00
„ Commonage (general repairs)	4 25
„ Court-house (general repairs)	21 00
„ Graham (general repairs)	559 50
„ Keddlestone (general repairs)	358 30
Carried forward	$ 50,365 86

Brought forward	$ 50,365 86

OKANAGAN DISTRICT—*Concluded.*

Vernon Section—Concluded.

Road—Long Lake (general repairs)	491 75
„ Lumby (general repairs)	30 00
„ Okanagan Landing (general repairs)	240 75
„ Oyama Fruit Lots (general repairs)	28 50
„ Pleasant Valley (general repairs)	421 40
„ Tronson (general repairs)	108 08
„ Vernon-Deep Creek (general repairs)	6 00
„ Vernon-Kamloops (general repairs)	215 50
„ Vernon-Kelowna (general repairs)	2,648 05
„ Vernon-Monashee (general repairs)	339 28
Streets—Maple Extension (general repairs)	40 50
„ Mobilization Camp (spreading gravel on streets of camp)	1,194 49
Roads—Woods Lake Subdivision	177 55

Westbank Section.

Road—Glenora (general repairs)	220 60
„ Hall's Landing (general repairs)	70 50
„ Lake Shore (general repairs)	383 25
„ Westbank Fruit Lots (general repairs)	156 33
„ Westside (general repairs)	1,520 60

Whiteman Section.

Road—Beau Park (general repairs)	2 50
„ Big Horn (general repairs)	76 25
„ Six-mile (general repairs)	38 00
„ Westside (general repairs)	3,725 55
Supervision	3,292 66
General supplies	7,767 33
Total	$ 73,561 28

REVELSTOKE DISTRICT.

Vote 163—$37,000; S.W., $1,000; Sup., $300 = $38,300.)

Road—Beaton-Trout Lake (removing slides and general repairs)	$ 492 00
„ Big Bend Main (general repairs)	125 50
„ Boyd Creek (cutting out trees and general repairs)	196 00
„ Camborne-Beaton (gravelling, clearing ditches, and general repairs)	1,131 45
„ Canoe River (general repairs)	494 00
„ Columbia River (north) (built diversion through rock-slide and general repairs)	7,843 00
„ Columbia River (south) (renewed grades, blasting stumps, and general repairs)	2,079 13
„ Columbia River (south), Hall's Landing (logged off 600 feet, diversions, and general repairs)	2,378 45
„ Columbia River (south), Arrowhead Section (excavated rock-slide, blasted stumps, and general repairs)	2,811 58
„ Columbia River (east) (general repairs)	20 25
„ Columbia River (west) (general repairs)	2,018 10
„ Comaplix-Beaton (general repairs)	48 00
„ Crawford Creek (general repairs)	604 65
„ Donald Mines (2 miles of new trail and general repairs)	224 75
Carried forward	$ 20,466 86

Brought forward	$ 20,466 86
REVELSTOKE DISTRICT—*Concluded.*	
Road—Downie-Goldstream (widening and grading)	504 00
„ Eagle Pass (general repairs)	7 00
„ Eva and Oyster (general repairs)	102 00
„ Fish River (general repairs)	241 00
„ Five-mile (south) (widening and grading)	831 00
„ Galena Bay (stumped, logged off, and general repairs)	1,248 55
„ Greeley Creek (cutting out bad grade and straightening road)	2,224 66
„ Halcyon (general repairs)	141 00
„ Halcyon-Galena Bay (general repairs)	276 05
„ Hall's Landing (general repairs)	20 80
„ Keystone (general repairs)	176 00
„ Revelstoke (east) (general repairs)	3,948 30
„ Seven-mile Branch (general repairs)	1,033 00
„ Trout (general repairs)	2,851 15
Trail—Benaire (new trail)	460 50
„ Carnes Creek (general repairs)	60 00
„ Five-mile Branch (general repairs)	28 00
„ Pool Creek (general repairs)	36 00
„ Silver Creek (general repairs)	75 00
„ Waverley & Tangier (clearing out slides and trees and repairing small bridges)	244 95
Streets—Arrowhead (general repairs to streets and sidewalks)	459 33
Supervision	1,756 95
General supplies	938 35
Total	$ 38,130 45
RICHMOND DISTRICT. (Vote 164—$40,000.)	
Road—Bowen Island (cleared, grubbed, etc., and general repairs)	$ 2,325 48
„ Capilano-North Vancouver (cleared, grubbed, etc., and general repairs)	1,500 00
„ D.L. 172 (general repairs)	60 75
„ Gambier Island (general repairs)	294 50
„ Gibson-Sechelt (clearing, grading, ditching, and general repairs)	8,719 83
„ Half Moon Bay (general repairs)	507 95
„ Lulu Island, No. 3 (general repairs)	306 94
„ Lulu Island, No. 5 (relaying plank, putting on crushed rock, macadamizing, etc.)	2,193 06
„ Lulu Island, No. 19 (clearing, planked, and general repairs)	2,500 00
„ Moodyville (general repairs)	9 02
„ Pemberton Valley (repairs to bridges, brushed to protect road, and general repairs)	4,069 72
„ Porpoise Bay (general repairs)	25 40
„ Sechelt-North-west Bay (general repairs)	2,075 34
„ Squamish Dyke (general repairs)	34 50
„ Squamish (repairs to 9 bridges, clearing, grading, gravelling, and general repairs)	6,257 57
Trail—Indian River (general repairs)	25 50
„ Irving's Landing-Garden Bay (general repairs)	190 45
„ Irving's Landing-Saginaw Lake (general repairs)	853 18
Avenue—Fell, D.L. 205 (general repairs)	895 85
„ Fraser Avenue, South Vancouver (grant)	2,000 00
Carried forward	$ 34,845 04

Brought forward	$	34,845 04
RICHMOND DISTRICT—*Concluded.*		
Launch—Government launch "Sutil"		1,142 39
Supervision		2,990 53
General supplies		66 52
Total	$	39,044 48
SAANICH DISTRICT. (Vote 165—$5,500.)		
Road—Helmcken (general repairs)	$	793 19
„ Corporation of Saanich Municipality		500 00
Total	$	1,293 19
SIMILKAMEEN DISTRICT. (Vote 166—$72,000.)		
Road—Allendale (general repairs)	$	61 00
„ Allison-Copper Mountain (cleaned out 6 miles of trail)		130 50
„ Armstrong Ferry (general repairs)		231 50
„ Ashnola (completing road)		467 00
„ Ashnola Townsite (general repairs)		42 50
„ Bear Creek (general repairs)		1,371 35
„ Beaver Creek (general repairs)		214 21
„ Beaverdale Station (general repairs)		180 50
„ Berg (general repairs)		18 00
„ Bridesville-Molson (general repairs and changed grade diversion)		171 26
„ Camp McKinney-Rock Creek (general repairs)		91 75
„ China Creek (general repairs)		42 50
„ Copper Mountain (repairs and improvements)		5,027 37
„ Dalby Meadows (general repairs)		318 75
„ Darcy Mountain (repairs and improvements)		365 00
„ Deer Valley (general repairs)		76 75
„ Dog Lake (repairs and completion)		2,653 82
„ Eck-Blain-Myncaster (general repairs)		60 75
„ Fairview-Keremeos (repairs and improvements)		450 12
„ Fairview-Osoyoos (repairs and improvements)		1,368 40
„ Fairview-Penticton (repairs and improvements)		6,332 51
„ Fairview-Rock Creek (repairs and improvements)		878 85
„ Fairview-Vaseaux Lake (general repairs)		41 50
„ Fairview-White Lake (repairs and improvements)		1,499 93
„ Farleigh (repairs and improvements)		248 75
„ Fish Lake (general repairs)		109 15
„ Fish Lake-Nickel Plate (general repairs)		342 00
„ Five-mile-Princeton (general repairs)		138 35
„ Granite Creek (general repairs)		513 75
„ Granite Mountain (general repairs)		92 00
„ Hedley-Twenty-mile (general repairs)		13 50
„ Hedley-Princeton (repairs and improvements)		4,826 74
„ Hembree Mountain (general repairs)		68 00
„ Hope-Princeton (repairs and improvements)		1,081 20
„ Huff (general repairs)		225 25
„ Independence (general repairs)		42 00
„ Jensen (general repairs)		210 75
„ Kaleden-Okanagan Falls (repairs and improvements)		1,414 05
„ Kaleden Townsite (general repairs)		330 50
Carried forward	$	31,751 81

Brought forward	$ 31,751 81
SIMILKAMEEN DISTRICT—*Continued.*	
Road—Keremeos-Hedley (general repairs and improvements)	1,724 47
„ Keremeos Junction (general repairs and improvements)	2,105 27
„ Keremeos-Similkameen (general repairs)	265 00
„ Keremeos Station (general repairs and improvements)	1,841 55
„ Kruger Mountain (general repairs)	321 90
„ Letts-Higginbotham (general repairs)	710 90
„ Lowe Subdivision (general repairs)	676 40
„ Main Kettle River (repairs and extension)	1,878 40
„ Marron Valley (repairs and completion)	2,225 93
„ Myers Flat-Okanagan Falls (general repairs)	666 75
„ Myers Creek (general repairs)	2 00
„ McLean Creek (general repairs)	94 40
„ Norman Station (general repairs)	7 50
„ One-mile (general repairs)	185 25
„ Oro Fino (general repairs)	731 25
„ Osoyoos-Sidley Mountain (general repairs)	510 85
„ Osoyoos-Similkameen	503 50
„ Patton (general repairs)	95 00
„ Pierce (general repairs)	12 50
„ Penticton-Carmi (general repairs)	50 75
„ Penticton-Fish Lake (repairs and improvements)	4,018 64
„ Penticton-Stevenson Creek (repairs and improvements)	136 25
„ Penticton-Summerland (general repairs)	130 00
„ Penticton-Tulameen River (general repairs)	84 25
„ Perry's Sawmill (general repairs)	80 50
„ Princeton-Otter Lake (repairs and improvements)	3,061 72
„ Rice Creek (general repairs)	29 85
„ Richter Mountain (general repairs)	101 00
„ Reid Creek (general repairs)	78 00
„ Rock Creek-Myncaster (general repairs)	421 07
„ Rock Creek-Osoyoos (built 448-foot fence and general repairs)	1,030 75
„ Rock Creek-Sidley Mountain (excavating earth and rock and general repairs)	1,951 73
„ Rock Mountain (general repairs)	335 53
„ Rock Mountain-Bridesville (general repairs)	39 00
„ Rock Mountain-Myncaster Station (general repairs)	221 00
„ Rock Mountain-Sidley (general repairs)	313 25
„ Sally Mine (general repairs)	387 25
„ Shingle Creek (general repairs)	219 00
„ Sidley Mountain (general repairs)	106 25
„ Sidley-McKinney (general repairs)	804 50
„ Similkameen-Burr (general repairs)	401 73
„ Smith Creek (improvements and general repairs)	102 50
„ South Keremeos (general repairs)	297 80
„ South Penticton (general repairs)	273 85
„ South Similkameen (general repairs)	781 53
„ Sterling Creek (general repairs)	312 35
„ Stevenson Creek (general repairs)	3 00
„ Summers Creek (general repairs)	296 45
„ Tulameen-Summit (general repairs)	191 00
„ West Fork of Kettle River (repairs and maintenance)	985 97
„ Wide West (general repairs)	170 00
„ Yellow Lake-Sheep Creek (general repairs)	132 25
Carried forward	$ 63,859 35

Brought forward		$ 63,859 35
SIMILKAMEEN DISTRICT—*Concluded.*		
Trail—Ashnola (general repairs)	52 05	
„ Ashnola-Copper Mountain (general repairs)	157 95	
„ Bromley Creek (general repairs)	68 75	
„ Champion Creek (general repairs)	63 25	
„ Fifteen-mile (general repairs)	99 50	
„ Granite Creek (general repairs)	42 00	
„ Hope Mountain (general repairs)	472 50	
„ Owl Mountain (general repairs)	99 00	
„ Shamrock (general repairs)	15 00	
„ Tom Creek Mountain (general repairs)	194 30	
Streets—Coalmount (general repairs)	23 00	
„ Hedley (building sidewalks, etc.)	1,260 64	
„ Princeton (building sidewalks and general repairs)	1,215 43	
Sidewalks—Keremeos (repairs)	15 58	
Compensation—E. Cote	200 00	
Supervision	2,557 00	
General supplies	569 05	
Total		$ 70,964 35
SKEENA DISTRICT. (Vote 167—$176,000.)		
Bella Coola Division.		
Road—Anahim Lake (general repairs and maintenance)	$ 170 50	
„ Calvert Island (general repairs and maintenance)	42 00	
„ Canoe Crossing (general repairs and maintenance)	1,878 93	
„ Carlsen (general repairs and maintenance)	258 75	
„ Clayton (north) (general repairs and maintenance)	121 75	
„ Clayton (south) (general repairs and maintenance)	97 00	
„ Firvale (general repairs and maintenance)	70 00	
„ Grant's (general repairs and maintenance)	151 00	
„ Main-10-Mile Wharf (general repairs and maintenance)	456 80	
„ Main-41-Mile-Marvin (general repairs and maintenance)	1,392 60	
„ Millbrook Cove (general repairs and maintenance)	317 50	
„ Namu (general repairs and maintenance)	246 26	
„ Safety Cove (general repairs and maintenance)	162 00	
Trail—Anahim Lake (general repairs and maintenance)	14 25	
„ Cannery (general repairs and maintenance)	9 00	
„ Klenklen (general repairs and maintenance)	100 00	
„ Salmon (general repairs and maintenance)	300 00	
„ Saloomt (general repairs and maintenance)	130 00	
„ Smutely River (general repairs and maintenance)	28 00	
„ Takush Harbour (general repairs and maintenance)	978 00	
„ Walker's and Ferry (general repairs and maintenance)	175 50	
Ferry—31-Mile Post (general repairs and maintenance)	13 00	
Supervision	436 20	
General supplies	1,236 19	
Total		$ 8,785 23
Interior (North) Division.		
Road—Branch from Kispiox at 10½-Mile (new work)	$ 101 25	
„ Brian Boru Mines (new work)	101 00	
Carried forward		$ 202 25

Brought forward	$	202 25
Skeena District—*Continued.*		
Interior (North) Division—Concluded.		
Road—Carnaby Station-Settlement (new work)		299 00
„ Driftwood Creek (new work and general repairs)		1,206 19
„ Glen Meadow-Salmon Creek (general repairs)		296 73
„ Hazelton-Aldermere (general repairs)		944 29
„ Heal-Norris (general repairs)		299 86
„ Hudson Bay Mountain (general repairs)		11 25
„ Hunter Basin Sleigh (new work and general repairs)		1,146 25
„ Hynes Settlement (general repairs)		970 25
„ Kispiox-Valley (general repairs)		2,300 65
„ Kispiox-Swan Settlement (general repairs)		269 88
„ Kitsequekla Valley (general repairs)		75 00
„ New Hazelton High Level Bridge (clearing, grading, grubbing, and general repairs)		4,502 94
„ New Hazelton Station-Main (general repairs)		212 16
„ Nine-mile (general repairs)		150 00
„ Poplar Park (general repairs)		651 19
„ Rocher Déboulé (general repairs)		2,687 90
„ Rosenthal (general repairs)		90 09
„ Silver Standard (general repairs)		123 24
„ Smithers Bridge-Hudson Bay Mountain (general repairs)		641 57
„ South Hazelton (general repairs)		186 37
„ South Hazelton-Skeena Crossing (general repairs)		334 97
„ Telkwa-Canyon Creek (built 32 culverts, grading, clearing, excavating, etc.)		4,444 84
„ Telkwa Canyon-Smither's Bridge Cut-off (general repairs, excavating, and filling in)		1,013 86
„ Westside-Bulkley (general repairs)		882 45
„ West Side of Bulkley-Moricetown-Chicken Lake (built 13 culverts, ditching, filling in, and general repairs)		3,301 87
„ West Side of Skeena River (general repairs)		223 19
Trail—Chicken Lake (general repairs)		7 50
„ Chicken Lake (east side) to Section 14 (general repairs)		32 08
„ Coal Creek (general repairs)		274 85
„ Higgins and Kane's (general repairs)		276 10
„ Manson Creek (general repairs)		100 00
„ Moricetown at 29-Mile-Hazelton-Aldermere (general repairs)		300 00
„ West Side of Kispiox Valley (general repairs)		181 00
Streets—Smithers (general repairs)		1,096 71
Stable—Stable account		3,266 81
Supervision		2,068 30
General supplies		201 97
Total	$	35,273 56
Interior (South) Division.		
Road—Allport-McDonald (new work)	$	464 18
„ Aldermere-Pleasant Valley (general repairs)		15 00
„ Branch to Bickle's to Main (general repairs)		870 71
„ Burns-Decker Lake (clearing roadway and changing from G.T.R. right-of-way)		894 16
„ Burns Lake-Tintagel (general repairs)		712 21
Carried forward	$	2,956 26

Brought forward	$	2,956 26
SKEENA DISTRICT—*Continued.*		
Interior (South) Division—Concluded.		
Road—Colley Mountain (new work)		6,006 32
„ Endako-Francois Lake (new work)		1,477 13
„ Forestdale (general repairs)		163 50
„ Grouse Mountain (new work)		737 23
„ Houston-North Bulkley (new work)		1,650 45
„ Houston-Ootsa Lake (new work)		7,152 16
„ Hubert-Babine (general repairs)		185 24
„ Keefe's Landing-Ootsa Lake (new work)		6,229 14
„ Main Trunk (general repairs)		702 90
„ North Francois Lake (general repairs)		678 33
„ Pleasant-Valley-Francois Lake (general repairs)		12 00
„ Uncha Lake (general repairs)		1,109 75
„ West Francois-Ootsa Lake (general repairs)		17 50
Trail—Anderson Creek-Silver Island (general repairs)		260 62
„ Burns Lake-Babine (general repairs)		284 24
„ Dome Creek (general repairs)		425 61
Stable—Stable account		3,049 84
Supervision		2,122 85
General supplies		989 16
Total	$	36,210 23
Upper Skeena River Division.		
Road—Cedarville (general repairs)	$	97 34
„ Cedarville-Kitwanga (general repairs)		652 90
„ Gold Creek-Copper River (general repairs)		38 66
„ Kitwanga-Kitwancool (general repairs)		88 44
„ Kitwanga Wagon (general repairs)		2,094 07
„ Lorne Creek (general repairs)		988 25
„ Meanskinsht-Kitwanga (general repairs)		549 25
„ Usk-Phillips Creek (general repairs)		1,537 05
Trail—Copper River (general repairs)		786 10
„ Gold Creek-Usk (general repairs)		871 65
„ Kitwanga-Nass (general repairs)		362 75
„ Legate Creek (new construction)		3,882 37
„ Phillips Creek (general repairs)		101 50
„ St. Croix Creek (general repairs)		224 00
„ Usk-Kitsalas Mountain (general repairs)		505 25
Ferry—Upper Nass (general repairs)		260 64
Supervision		1,576 50
General supplies		2,229 54
Total	$	16,846 26
Lower Skeena River Division.		
Road—Bohler's (general repairs)	$	175 00
„ Brackenridge-Copper City (general repairs and maintenance)		1,639 91
„ Copper City-Kitimat (reconstruction, improvements, and maintenance)		3,129 63
„ Corlett (reconstruction, improvements, and maintenance)		1,920 41
„ Green's (general repairs)		57 00
„ Hughes (general repairs)		710 70
Carried forward	$	7,632 65

Brought forward	$	7,632 65
SKEENA DISTRICT—*Continued.*		
Lower Skeena River Division—Concluded.		
Road—Johnston (improvements and general repairs)		659 97
„ Kitimat (general repairs)		525 78
„ Kitsumgallum Main (reconstruction and general repairs)		6,275 63
„ Kitsumgallum-Terrace (reconstruction and general repairs)		866 07
„ Kitsumgallum Valley (general repairs)		192 00
„ McLeod's (general repairs)		61 25
„ McPherson (general repairs)		325 25
„ Refuge Bay-Jap Inlet (new construction)		1,382 15
„ Refuge Bay-North Arm (general repairs)		150 50
„ Smith Island (new construction)		298 24
„ Spiller River (general repairs)		796 35
„ Terrace Ferry (general repairs)		545 80
„ Vigor (general repairs)		557 00
„ Welcome Harbour-Serpentine Inlet (new construction)		437 95
„ Welcome Harbour-Dries Bay (reconstruction and improvements)		812 12
„ Zimachord River (new construction)		629 66
„ Zimachord Siding (general repairs)		82 89
Trail—Balmoral Cannery (reconstruction)		403 65
„ Claxton (reconstruction)		262 50
„ Dover Donald (rebuilt)		195 50
„ Hot Springs-Lakelse Lake (reconstruction)		259 00
„ Kitsumgallum-Lake Shore (general repairs)		129 50
„ Liza Creek (general repairs)		52 50
„ Minnette Bay (general repairs)		452 25
„ Williams Creek (general repairs)		66 50
Streets—Port Essington		1,503 20
Sidewalk—Claxton, plank walks (repairs and new construction)		38 38
„ Kavinitza, plank walks (general repairs)		10 84
„ Salt Lake, plank walks (new construction)		525 56
Supervision		2,569 20
General supplies		2,216 26
Total	$	30,916 10
Portland Canal Division.		
Road—Alice Arm-Illiance (general repairs)	$	35 00
„ Bear River (maintenance and repairs)		854 34
„ Grease Harbour-Stewart (repairs)		5 25
„ Grease Lake-Cranberry (east) (repairs)		40 90
„ Grease Lake-Cranberry (west) (new construction)		1,347 55
„ Middle Creek (east side) (repairs)		268 00
„ Middle Creek (west side) (repairs)		173 00
„ Salmon River (general repairs)		822 60
„ Salmon River-Belle Bay (new construction)		1,936 23
„ Sand Lake (general repairs)		94 00
Trail—Bitter Creek (general repairs)		265 00
„ Georgia River (new construction)		2,045 56
„ Glazier Creek (east) (general repairs)		175 00
„ Glazier Creek (west) (general repairs)		230 00
„ Illiance (new work and repairs)		1,116 20
„ Kitsault River (general repairs)		341 35
Carried forward	$	9,749 98

Brought forward	$ 9,749 98

SKEENA DISTRICT—*Concluded.*

Portland Canal Division—Concluded.

Trail—Kitsault (north-east) (general repairs)	332 80
„ Lime Creek (general repairs)	278 60
„ Marmot River (new construction)	197 45
„ Silver Creek (general repairs)	1,184 75
„ Upper Nass (general repairs)	10 50
Ferry—Grease Harbour (general repairs)	240 50
„ Kitsault River (general repairs)	433 35
Supervision	402 75
General supplies	3,182 46
Total	$ 16,013 14

Queen Charlotte Islands Division.

Road—Delkalta-Cowan (or Chown) Point (new construction)	$ 1,252 49
„ Gerrard's (new construction)	632 50
„ Graham Centre (new construction)	140 00
„ Lawn Hill Post-office (new construction)	446 00
„ Lena Island (general repairs)	301 00
„ Lockeport (general repairs)	200 35
„ Maud Island (new construction)	198 25
„ Mexican Tom (general repairs)	476 05
„ Nadu (general repairs)	931 82
„ North Settlement (new construction)	975 30
„ Port Clements-Mayer Lake (repairs)	2,466 55
„ Port Clements-Yakoun (repairs)	464 30
„ Sandspit (new construction)	706 00
„ Sewell (north) (general repairs)	101 00
„ Sewell (south) (general repairs)	605 85
„ Skidegate-Queen Charlotte City (general repairs)	1,551 65
„ Skidegate-Tlell (new construction)	4,987 00
„ Tow Hill-Cape Fife (general repairs)	534 15
„ Tow Hill-Masset (general repairs)	14 00
„ Tow Hill-Spence Lake (new construction)	1,934 15
„ West Settlement (general repairs)	888 70
„ White River (general repairs)	489 25
„ Woden River (reconstruction)	565 95
Trail—Cape Fife (general repairs)	94 50
„ Carr and Whittle (new construction)	616 05
„ Copper Bay (new construction)	708 00
„ Gold Harbour (general repairs)	236 95
„ Ikeda-Jedway (reconstruction)	299 45
„ South-easter (general repairs)	218 50
Supervision	100 00
General supplies	3,170 36
Total	$ 26,306 12
Grand total	$170,350 64

SLOCAN DISTRICT. (Vote 168—$36,000.)

Road—Appledale Subdivision (new roads)	$	606 35
„ Broadwater (general repairs)		75 00
„ Brouse (2 culverts, grading, and gravelling)		55 50
„ Cariboo Creek (grading)		501 00
„ Cariboo-Snow Creek (grading and cribbing)		27 00
„ Columbia River (gravelling, draining, lowering and raising grade, and filling in wash-outs)		2,727 75
„ Crescent Bay (general repairs)		442 50
„ Deer Park (general repairs)		202 00
„ Denver Canyon (general repairs)		10 50
„ Echo Mine (general repairs)		240 00
„ Edgewood-Needles (general repairs)		49 50
„ Fauquier's Landing (general repairs)		165 00
„ Fire Valley-Whatshan (general repairs)		38 00
„ Gwillam Creek (widening rock-cut and general repairs)		531 03
„ Idaho (general repairs)		277 50
„ Lebahdo (clearing and general repairs)		1,277 30
„ L.H. Mine (brushing, widening, and repairing)		247 00
„ Lilly B. Mine (cleared out slides, etc., building culverts, and general repairs)		1,441 90
„ Lucky Thought (general repairs)		116 50
„ McCormack (ditching and cleaning)		121 50
„ Nakusp-Box Lake (ditching and gravelling)		422 70
„ Nakusp (east) (cribbed, excavated earth, filled, etc.)		1,216 55
„ Neepawa (general repairs)		13 00
„ New Denver-Rosebery (general repairs)		231 00
„ New Denver-Silver Mountain (general repairs)		81 00
„ New Denver-Silverton (widening and general repairs)		499 38
„ Noonday (general repairs)		81 00
„ Passmore (building culverts and general repairs)		853 50
„ Payne (general repairs)		87 00
„ Perry Siding (ditching, etc.)		37 00
„ Ruth Mines (general repairs)		100 00
„ Silverton-Red Mountain (general repairs)		930 00
„ Silverton-Four-mile Creek (825 feet of new road and cribbing, excavating, etc., general repairs to old road)		4,411 16
„ Slocan-Bear Creek (general repairs)		66 00
„ Slocan River (general repairs)		833 68
„ Slocan River (west) (general repairs)		571 50
„ Slocan Star (general repairs)		97 00
„ Springer Creek (general repairs)		316 12
„ Standard (general repairs)		30 00
„ Summit-Brouse (general repairs)		34 00
„ Summit-Box Lake (general repairs)		217 00
„ Surprise (general repairs)		420 44
„ Ten-mile Creek (general repairs)		768 00
„ Three Forks-Bear Lake (general repairs and new work)		243 00
„ Three Forks-Sandon-Cody (general repairs)		990 75
„ Vancouver (general repairs)		54 00
Trail—American Boy (general repairs)		27 00
„ Antoine (cleared, grubbed, and graded)		344 00
„ Bondholder (cleared, put on guard-rail, and repairs to 1 bridge)		174 00
„ California (general repairs)		93 00
Carried forward	$	23,395 61

Brought forward	$ 23,395 61

SLOCAN DISTRICT—*Concluded.*

Trail—Carpenter (North Fork) (3 miles new trail and general repairs)	1,643 75
„ Carpenter (South Fork) (general repairs)	201 50
„ Chieftain (general repairs)	93 00
„ Conder (general repairs)	24 00
„ Eight-Ten-mile (general repairs)	150 00
„ Elkhorn (general repairs)	114 00
„ Evening Star (general repairs)	56 00
„ Four-mile (general repairs)	117 00
„ Freddie Lee (general repairs)	112 00
„ Goat Canyon (general repairs)	160 50
„ Jameson (general repairs)	51 00
„ Kitchener (general repairs)	106 00
„ Lemon Creek (general repairs)	199 25
„ Lemon Creek (North Fork) (general repairs)	132 00
„ Mabs (general repairs)	36 00
„ Meteor Mine (general repairs)	56 00
„ Miner Boy (general repairs)	50 00
„ Morning Star (general repairs)	42 00
„ Monitor-Queen Bess (general repairs)	48 00
„ Mountain Chief (general repairs)	35 00
„ McAllister (general repairs)	13 00
„ McGuigan (general repairs)	107 00
„ New Denver-Three Forks (general repairs)	109 75
„ Queen Bess (general repairs)	116 00
„ Robertson Creek (general repairs)	45 00
„ Sandon-Ivanhoe (general repairs)	48 00
„ Sandon-Reco (general repairs)	329 00
„ Ten-mile Creek (general repairs)	30 00
„ Ten-mile-Springer Creek (general repairs)	12 00
„ Three Forks-Bear Lake (general repairs)	65 50
„ Twelve-mile (general repairs)	52 00
„ Wilson Creek (general repairs)	610 50
„ Wonderful-Queen Bess (general repairs)	528 00
Streets—Nakusp (sidewalks and clearing, grading, etc.)	1,027 55
„ New Denver (sidewalks and clearing, grading, etc.)	721 26
„ Silverton (sidewalks and clearing, grading, etc.)	2,052 50
General supplies	700 95
Supervision	2,381 34
Total	$ 35,771 96

YALE DISTRICT. (Vote 169—$51,300.)

Road—Aberdeen (general repairs)	$ 1,503 00
„ Agassiz Ferry (general repairs)	34 25
„ Agassiz-Harrison (cleared, graded, etc.)	1,993 75
„ Anderson (general repairs)	209 30
„ Ashcroft-Spences Bridge (general repairs)	20 32
„ Aspen Grove (extending road and general repairs)	2,327 40
„ Back Valley (general repairs)	794 27
„ Barnes Hill (general repairs)	10 00
„ Basque (grading, excavating, and filling in)	1,059 72
Carried forward	$ 7,952 01

Brought forward	$	7,952 01
YALE DISTRICT—*Continued.*		
Road—Botanic Creek (built 19 culverts, grading, excavating, and general repairs)		2,598 00
„ Bridge-Ashcroft-Savona (general repairs)		80 64
„ Cache Creek (gravelling and general repairs)		1,287 79
„ Cain Valley (general repairs)		100 00
„ Cannery (general repairs)		529 40
„ Chaumoux (general repairs)		463 87
„ Chisholm (general repairs)		120 15
„ Coldwater (general repairs)		548 45
„ Colletville (grading, excavating, and general repairs)		1,535 78
„ Cornwall (general repairs)		625 21
„ Coyote Valley (general repairs)		107 84
„ Deadman Creek (general repairs)		160 40
„ Dent-Ritter (general repairs)		533 02
„ Dodding (general repairs)		7 00
„ Fish Lake (general repairs)		195 00
„ George (general repairs)		201 50
„ Gray (general repairs)		42 75
„ Gulliford (general repairs)		10 50
„ Hammond's (general repairs)		16 00
„ Harpers Mill (general repairs)		57 25
„ Harrison Hot Springs (general repairs)		319 50
„ Hat Creek (general repairs)		688 95
„ Highland Valley (clearing, grading, and general repairs)		3,614 46
„ Hope-Popcum (general repairs)		293 25
„ Johnson (general repairs)		148 25
„ Katz (general repairs)		149 20
„ Laidlaw (general repairs)		116 62
„ Lytton-Lillooet (grading and general repairs)		3,433 87
„ Main Trunk (general repairs)		971 40
„ Mamete Lake (grading and general repairs)		1,067 34
„ Manning-Thacker (general repairs)		26 00
„ Merritt-Hamilton (general repairs)		245 02
„ Midday Valley (general repairs)		2 80
„ Middlesboro (general repairs)		187 95
„ Mill Creek (general repairs)		556 91
„ Murray Creek (general repairs)		21 00
„ Nicola-Princeton (changing location of irrigation-ditch owing to diversion and general repairs)		2,042 27
„ Nicola-Stump Lake (clearing slides and general repairs)		853 15
„ North Lytton (general repairs)		13 00
„ One-mile Creek (general repairs)		96 75
„ Penny (general repairs)		188 55
„ Petit Creek (grading and depositing gravel)		953 36
„ Pollard (general repairs)		40 00
„ Popcum (clearing, gravelling, and building fence)		2,541 99
„ Princeton-Merritt (general repairs)		14 00
„ Quilchena (general repairs)		197 50
„ River (general repairs)		39 00
„ Rosedale and branches (general repairs)		77 20
„ St. Elmo (general repairs)		54 25
„ Salmon River (general repairs)		308 45
Carried forward	$	36,434 55

Brought forward		$ 36,434 55
YALE DISTRICT—*Concluded.*		
Road—Semlin Siding (general repairs)	167 75	
„ Smith's (general repairs)	178 00	
„ Spences Bridge-Nicola (cleared, grading, gravelling, and general repairs)	3,895 38	
„ Stein River (general repairs)	955 75	
„ Sunshine (general repairs)	548 10	
„ Upper Hat Creek (general repairs)	20 00	
„ Veal (general repairs)	18 00	
„ Venables Valley (general repairs)	137 60	
„ Voigt Valley (general repairs)	278 13	
„ Walhachin (general repairs)	279 37	
„ Woodward's (general repairs)	40 75	
„ Yale-Hope (general repairs)	623 18	
Trail—Lytton-Spences Bridge (general repairs)	267 20	
„ Similkameen (general repairs)	567 50	
„ Skagit (general repairs)	116 00	
„ Texas Creek (general repairs)	100 50	
Streets—Ashcroft (general repairs)	239 45	
„ Hope (general repairs)	100 55	
„ Yale (general repairs)	12 00	
General supplies	1,784 90	
Supervision	2,852 25	
Total		$ 49,616 91
YMIR DISTRICT. (Vote 170—$72,000.)		
Road—Arrow Park Subdivision (maintenance and repairs)	$ 153 50	
„ Arrow Park (north) (maintenance and repairs)	301 75	
„ Big Sheep Creek (construction and maintenance)	327 00	
„ Bird Creek (general repairs)	42 00	
„ Block 2, Sub-lot 9555 (general repairs)	25 00	
„ Bunker Hill (general repairs)	646 30	
„ California Mine (general repairs)	57 00	
„ Canyon City (general repairs)	67 10	
„ Castlegar-West Robson (construction)	949 00	
„ Central Park (construction and maintenance)	373 50	
„ Cemetery (repairs)	18 00	
„ Columbia Gardens (construction and repairs)	376 00	
„ Cottonwood Lake (maintenance)	256 75	
„ Creston-Erickson (maintenance and general repairs)	539 00	
„ Creston-Kuskanook (maintenance and general repairs)	542 45	
„ Creston-Laterals (maintenance and general repairs)	243 50	
„ Creston-Kitchener-Goatfell (maintenance and general repairs)	2,105 75	
„ Creston-Port Hill (general repairs)	241 75	
„ Creston-Summit Creek (general repairs)	1,151 93	
„ Deer Creek (general repairs)	511 25	
„ Dundee Mine (general repairs)	61 05	
„ East Robson (construction and general repairs)	1,366 10	
„ Edgewood-Needles (general repairs)	665 00	
„ Edgewood-Vernon (general repairs)	926 66	
„ Emerald Mines (general repairs)	161 25	
„ Erickson-Port Hill (general repairs)	859 26	
Carried forward		$ 12,967 85

Brought forward	$ 12,967 85

YMIR DISTRICT—*Continued.*

Road—Fire Valley-Whatshan (general repairs)	223 00
„ Four-mile-Pend d'Oreille (general repairs)	109 00
„ Fruitvale Subdivision (general repairs)	1,052 78
„ Granite Mill (general repairs)	328 10
„ Granite and branches (general repairs)	1,595 03
„ Harrop-Procter (general repairs)	742 09
„ Hood-Medford (general repairs)	154 00
„ Inanocklin (south) (general repairs)	222 75
„ Kootenay River (general repairs)	2,791 21
„ Lost Creek (general repairs)	1,960 75
„ Mountain (general repairs)	379 03
„ Nelson-Balfour (general repairs)	2,752 86
„ Needles-Fire Valley (general repairs)	408 00
„ Nelson-Roberts Ranch (general repairs)	71 75
„ Nelson-Waneta (maintenance and general repairs)	2,997 39
„ Northport (maintenance)	426 35
„ Pass Creek (maintenance)	1,751 17
„ Pend d'Oreille River (maintenance and construction)	3,839 48
„ Renata (general repairs)	280 30
„ Rock Creek (general repairs)	334 00
„ Rossland-Stony Creek (general repairs)	91 25
„ Salmon River (general repairs)	588 15
„ Sanca-Boswell (general repairs)	570 85
„ Second Relief (general repairs)	360 40
„ Silver King (general repairs)	52 50
„ Sirdar terminals (general repairs)	301 46
„ Six-mile (general repairs)	96 00
„ Slocan River (construction and maintenance)	2,211 44
„ Trail-Castlegar (construction and maintenance)	1,159 10
„ Trail (east) (construction and maintenance)	922 05
„ Trail-Fort Sheppard (maintenance)	638 71
„ Trail-Fruitvale (maintenance)	1,455 35
„ Trail-Rossland (maintenance)	4,002 89
„ Trail-Sayward (maintenance)	2,701 80
„ Trail Smelter (maintenance)	2,304 00
„ Trail Smelter-Violin Lake (maintenance)	233 25
„ Waterloo Ferry (maintenance)	32 50
„ West Demars (maintenance)	255 50
„ Whatshan (maintenance)	234 50
„ Wilcox Mine (maintenance)	96 00
„ Yellowstone (construction and maintenance)	3,763 84
„ Ymir (construction and maintenance)	104 63
Trail—Boletti (general repairs)	109 50
„ Columbia (general repairs)	33 00
„ Cultus Lake (general repairs)	404 03
„ Faith Group (general repairs)	54 00
„ Gagnon's (general repairs)	52 00
„ Gamble Creek (general repairs)	51 00
„ Garuity Creek (general repairs)	20 00
„ Goat River (general repairs)	118 00
„ La France (general repairs)	51 00
„ Lightning Peak (general repairs)	91 50
Carried forward	$ 58,547 09

Brought forward	$ 58,547 09
YMIR DISTRICT—*Concluded.*	
Trail—Lost Cabin (general repairs)	84 00
„ Murphy Creek (general repairs)	39 50
„ Pritchard Creek (general repairs)	100 00
„ Ruby Mine (general repairs)	54 00
„ South Fork of Salmon (general repairs)	81 00
„ Spokane Group (general repairs)	64 00
„ Summit Creek (general repairs)	100 00
„ White Grouse (general repairs)	48 00
„ Wolf Creek (general repairs)	36 00
Streets—Creston (maintenance and repairs)	537 98
„ Edgewood (maintenance and repairs)	377 38
„ Erie (maintenance and repairs)	47 15
„ Fairview (maintenance and repairs)	2,332 05
„ Rosemont, District Lot 182 (maintenance and repairs)	208 75
„ Salmo (maintenance and repairs)	129 79
„ South Nelson (maintenance and repairs)	543 34
General supplies	2,531 58
Supervision	2,963 80
Total	$ 68,825 41

KINGSWAY-BURNABY MUNICIPALITY. (Vote 171—$80,500.)

No expenditure.

POINT GREY ROADS. (Vote 172—$10,000.)

Fourth Avenue (grant $2,875 and general repairs)	$ 3,175 00
Marine Drive (oiling, cribbing, filling in, etc.)	3,480 35
Drain-boxes near E. P. Davis'	1,009 66
General supplies	1,694 74
Total	$ 9,359 75

INTERNED ALIENS. (Vote 173—$30,000.)

Fernie District	$ 6 00
Okanagan District—	
Edgewood-Vernon (new road)	3,920 93
Sicamous-Mara (new road)	13,930 64
Total	$ 16,957 57

STRATHCONA PARK. (Vote 174—$9,000.)

Expenditure	$ 8,800 28

OBSERVATORY ROAD. (Vote 175—$2,000.)

Expenditure	$ 1,847 00

SAANICH PAVING. (Vote 176—$20,000.)

Expenditure	$ 19,459 75

ASSISTANCE TOWARDS DYKE, NICOMEN ISLAND. (Vote 177—$10,000.)

Expenditure	$ 10,000 00

CONFINING PETERSON CREEK, ETC. (Vote 178—$25,000.)

Expenditure	*Nil.*

LOCATION OF ROADS. (Vote 179—$5,000.)

Cariboo (north)	$	54 50
Columbia		342 50
Grand Forks		75 00
Okanagan		929 84
Revelstoke		321 90
Similkameen		191 40
Yale		142 20
Ymir		2,619 15
Total	$	4,676 79
Less credit per C.N.R.		99 00
Total	$	9,577 79

PROTECTION OF RIVER-BANKS.
(Vote 180—$10,000; Sup., $3,200 = $13,200.)

Chilliwack	$	4,913 10
Columbia		3,033 05
Cranbrook		81 15
Fernie		995 70
Greenwood		69 00
Kamloops		162 75
Kaslo		117 00
Revelstoke		1,108 52
Similkameen		226 14
Skeena		670 30
Slocan		38 00
Ymir		1,316 15
Total	$	12,730 86

ROAD MACHINERY. (Vote 181—$5,000.)

Cariboo	$	75 75
Esquimalt		886 60
Greenwood		201 00
Revelstoke		80 50
Skeena		1,480 54
Ymir		567 30
Total	$	3,291 69

WHARVES GENERALLY. (Vote 182—$25,000.)

Alberni—		
Ucluelet (approach)	$	97 65
Vargas Island (approach)		183 00
Atlin—Discovery		52 40
Comox—		
Coal Harbour (float)		110 92
Hornby Island		608 27
Manson Landing		656 72
Mary Island		383 03
Quathiaski		428 38
General supplies		41 55
Carried forward	$	2,561 92

Brought forward	$ 2,561 92
WHARVES GENERALLY—*Concluded.*	
Cowichan—	
Cowichan Bay	847 72
Maple Bay	197 60
Esquimalt—Float	18 00
Islands—	
Beaver Point	45 00
Burgoyne Bay	402 35
Deep Bay	100 60
Fulford Harbour	16 00
Gabriola (north)	398 43
Gabriola (float)	126 70
Galiano	46 00
Ganges	232 60
Hill	165 00
Hope	398 55
Kuper Island	453 15
Mayne Island	30 00
Moresby Island	404 01
Musgrave	488 69
Port Washington	407 10
Saturna	80 85
Thetis Island	465 32
Vesuvius Bay	301 45
General supplies	3,409 98
Okanagan—	
Dog Lake	444 29
Ewing's Landing	4 10
Gellatly	343 61
Killiney	15 40
Long Lake	94 18
Naramata	79 04
Okanagan Centre	106 99
Peachland	2 40
Rainbow	23 03
Westbank Ferry	4 15
General supplies	106 45
Richmond—Snug Cove (Bowen Island)	478 60
Similkameen—Kaleden	769 95
Skeena—	
Bella Coola	4,625 07
Queen Charlotte City	20 25
Ymir—Nelson (floating)	370 83
Total	$ 19,085 36

PRINCE RUPERT WHARF. (Vote 183—$8,000.)

Expenditure	$ 6,462 99

BRIDGES GENERALLY. (Vote 184—$450,000.)

Alberni District.

Brennan Creek	$ 168 34
Best-Kitsuksus Creek	92 45
Cape Scott	259 25
Carried forward	$ 520 04

Brought forward	$ 520 04

BRIDGES GENERALLY—*Continued.*

Alberni District—Concluded.

China Creek	95 88
Clarke's Road	97 60
Coleman's Road	77 65
Comodor	40 00
Englishman's River	29 53
French Creek	210 50
Four-mile Creek	265 20
McCoy Creek	200 30
McLeod Lake	20 00
Proctor Creek	117 50
Roger Creek	725 50
San Josef Trail	643 45
Texada Island	244 01
Upper Englishman's River	1,386 73
Total	$ 4,673 89

Atlin District.

Big Horn River	$ 130 00
Indian River	25 00
Klehini	268 00
Little Lake Outlet	30 00
Miner's Ditch, No. 1	59 52
Moose Arm Portage	60 00
Nakina	303 50
Slate Creek	50 00
Spruce Creek, No. 1	313 96
Spruce Creek, No. 2	101 20
Spruce Creek, No. 3	90 00
Spruce Creek, No. 4	90 00
Total	$ 1,521 18

Cariboo District.

Northern Division—	
Beaver Creek	$ 107 50
Curve Creek	306 00
Dore River	2,596 59
Endako River (at Stella)	1,921 66
Fraser River (near Mount Robson)	224 98
Fraser River (at Prince George)	30 25
Hudson Bay	454 50
Morris Creek	515 20
McLennan	1,554 96
McMillan	39 65
Nechako River (at Vanderhoof)	30,184 30
Nechako River (at Prince George)	41,150 22
Necoslie	2,178 54
Peace River	1,586 40
Salmon River	10,277 00
Stella	241 53
Carried forward	$ 93,369 28

Brought forward	$ 93,369 28
BRIDGES GENERALLY—*Continued.*	
Cariboo District—Concluded.	
Northern Division—*Concluded.*	
Tremblay's, Dawson Creek	1,156 00
Yellowhead Lake	500 00
General supplies	118 24
Southern Division—	
Harpers Camp Road	1,057 76
Spencer's Gulch	712 87
Central Division—	
Canyon and Terry Creek	82 50
Cottonwood	7,507 32
Wingdam	522 48
Total	$105,026 45
Chilliwack District.	
Chilliwack River Road	$ 35 00
Columbia Valley Road	93 20
Matsqui	56 69
Mount Lehman	600 41
Vedder	11 83
White	706 90
Yale Road (west)	1,459 72
Total	$ 2,965 75
Columbia District.	
Beard's Creek	$ 99 00
Boulder Creek	170 65
Brisco (floating)	286 10
Bugaboo	276 04
Canal Flat	297 25
Canyon Creek	2,022 61
DeGrozie Creek	418 50
Dutch Creek	1,542 32
Fifty-two-mile Post	1,091 86
Heffner's	348 05
Horsefly Creek	1,042 80
Kicking Horse	164 25
Kootenay	152 20
Larimer Creek	31 00
Moberly	12 00
McDonald Creek	618 75
McKeenan's Creek	65 00
North Fork of Dutch Creek	95 00
North Fork of Spillimacheen	74 00
North Vermilion	456 30
Pinehurst	43 00
Shuswap Creek	102 00
Sinclair Creek	575 27
South Vermilion	241 80
No. 3 Creek	1,258 50
Tatley Creek	314 25
Carried forward	$ 11,798 50

Brought forward	$ 11,798 50

BRIDGES GENERALLY—*Continued.*

Columbia District—Concluded.

Toby Creek	3,797 80
Toby Road	100 00
Wait-a-bit	182 90
Washout Creek	520 00
Wilmer (floating)	225 26
Windermere Creek	80 07
Total	$ 16,704 53

Comox District.

Brooklyn	$ 62 20
Calhoun's	1 52
China Creek	44 75
Crescent Bay	8 75
Curran's	79 35
Findlay Creek	47 11
Ford's (Hornby Island)	916 70
Garven Creek	35 50
Hart's Creek	1,062 91
Hodgson Cross Road	104 05
Howe's (Hornby Island)	1,231 73
Kelland	62 15
Little River	17 50
Lund-Powell River Road	642 15
Nahwitte River	537 74
Powell River	3,469 32
Powell River-Grief Point	1,054 64
Power-house	69 00
Puntledge River, No. 1	228 00
Puntledge River, No. 2	7 75
Rennison's	190 65
Salmon River	521 86
Sandhills	7 25
Shelter Point	62 50
Shushartie River	553 76
Smith	232 87
Stewart's	92 50
Swansky's	87 50
Thames River	3,858 36
Trent River	48 00
Tsolum River	70 50
Victoria-Campbell River Road, No. 79A	116 50
Victoria-Campbell River Road, No. 79F	50 00
Total	$ 15,575 07

Cowichan District.

Barkley	$ 88 50
Cheewat-Clo-oose	301 50
Chemainus River	1,458 00
Cowichan Lake	3,212 33
Carried forward	$ 5,060 33

Brought forward	$ 5,060 33

BRIDGES GENERALLY—*Continued.*

Cowichan District—Concluded.

Cowichan Station	4,307 52
Duncan Wagon	1,397 38
Evans	25 50
Glenora Cross Road	43 50
Twin, No. 47 and No. 48	102 10
Vaux	21 74
Total	$ 10,958 07

Cranbrook District.

Cherry Creek	$ 21 00
Kelly Slough	22 50
Kimberley-Mark Creek	278 64
Kootenay River-Gateway	181 25
Kootenay River (at Fort Steele)	312 51
Kootenay River (at Wardner)	74 00
Kootenay River (at Wasa)	146 00
Manchester Creek	74 12
Marysville-Mark Creek	379 57
Matthew Creek	1,017 50
Perry Creek	125 00
Sawmill Creek	175 00
Skookumchuck	1,061 36
St. Mary Lake	111 00
St. Mary River (Mission-Wycliffe)	156 75
St. Mary River (Eugene-Mission)	10,290 96
St. Mary River (Eugene-Mission) (temporary)	1,429 26
St. Mary River (Westport) (large)	574 00
Tahk	48 00
Wycliffe	587 40
General	91 36
Total	$ 17,157 18

Delta District.

Anderson Creek	$ 1,135 41
Canoe Pass	109 21
Coghlan	129 97
Dry Gulch	923 63
Hope	24 48
Jenkins	20 00
Livingstone	610 35
No. 2	114 90
No. 3	70 70
No. 4	72 40
No. 5	221 47
No. 6	252 00
Pacific Highway	49 80
Town Line	1,813 85
Warwhoop Trail	635 07
Total	$ 6,183 24

BRIDGES GENERALLY—*Continued.*

Dewdney District.

Carter's	$	50 67
Conley Creek		43 02
Dewdney Slough		4 90
Dewdney Trunk Road		154 50
Gifford, No. 1		57 71
Gifford, No. 2		57 71
Gifford, No. 3		75 00
Hazelwood Street		297 69
Henderson		54 32
Morrison		91 49
McDonald (Pitt Meadows)		235 59
Sproule		34 00
Stave Falls		2,077 18
Thompson's		68 49
Upper Pitt River		635 52
Yennadon (Wilson Road)		487 45
Total	$	4,425 24

Esquimalt District.

Coal Creek	$	13 00
Finlayson Arm		91 80
Fitzgerald		169 11
Gordon River (east)		793 28
Gordon River (west)		25 00
Grant's		53 12
Happy Valley		50 65
Helmcken		16 40
Hughes		18 00
Luxton		93 25
Otter Point		54 00
Parson's		259 45
Phillips		31 25
Sooke Road, No. 1		43 65
Total	$	1,711 96

Fernie District.

Coal Creek	$	97 70
Elkmouth, No. 9		260 58
Elko		6 00
Elk River, No. 4		20 00
Gateway Ferry		54 00
Hosmer, No. 2		2,365 07
McDougall's, No. 3		201 62
Sand Creek		50 88
Waldo		2,613 46
West Fernie, No. 5		544 50
General supplies		37 20
Total	$	6,251 01

BRIDGES GENERALLY—*Continued.*

Grand Forks District.

Carson	$	805 20
Cascade		169 20
East Fork		58 50
Fourth Street		55 60
Franklin		926 57
Gilpin		252 29
Total	$	2,267 36

Greenwood District.

Baker Creek	$	29 50
Blythe		34 00
Fairview Road		209 00
Johnston		439 75
Lawless		591 14
Main Kettle River		398 00
Nesker's		2,399 06
North Fork of Rock Creek		232 00
Westbridge		7 50
Wilkinson Creek		11 00
White Cabin (Kettle River)		1,067 22
General supplies		30 00
Total	$	5,448 17

Islands District.

Deep Bay	$	135 25
Gabriola		30 25
Horton Bay (Mayne Island)		36 00
Mount Newton (North Saanich)		82 05
New Road (North Saanich)		173 50
North Saanich		24 00
South End (South Gabriola)		27 50
Walker's Hook		218 65
Total	$	727 20

Kamloops District.

Barriere River	$	137 00
Bischoff		712 42
Celista Creek		54 23
Eagle River (at Craigellachie)		1,361 49
Eagle River (at Solsqua)		8 50
Granite Creek		549 89
Kamloops (east)		150 00
Kamloops (west)		454 40
Kernaghan's		122 00
Loftus Slough (Malakwa)		250 95
Moore's		210 21
Salmon River		150 75
Savona		162 20
Shuswap		42 00
Carried forward	$	4,366 04

Brought forward	$	4,366 04

BRIDGES GENERALLY—*Continued.*

Kamloops District—Concluded.

Solsqua Trestle		742 49
South Thompson River		46 00
Yard Creek		421 32
Total	$	5,575 85

Kaslo District.

Beach	$	3 00
Canning		15 00
Cariboo Creek		463 23
Cascade Creek		146 22
Crawford Bay		79 95
Dry Gulch		6 00
Eureka Trail		4 50
Gerrard		12 00
Goat River		87 91
Grey Creek		160 25
Halfway		6 00
Hammil Creek		1,011 20
Healey Creek		3 00
Kaslo Creek, Nos. 1 and 2		9 00
Kaslo Creek (South Fork)		521 75
Lynchville Road		456 52
Montezuma		6 00
Reclamation Farm Slough		253 25
Summit Creek		88 00
Tenderfoot Creek		6 00
Trout Lake		24 00
Wakefield		181 90
Woodberry		39 00
General supplies		291 50
Total	$	3,875 18

Lillooet District.

Eastern Division—		
Big Bar Creek	$	137 50
Bridge Creek (Buffalo Branch Road)		93 75
Bridge Creek (Horse Lake Road)		96 25
Campbell's		3 00
Canim Lake Road		400 25
Canoe Creek		62 87
Clinton Creek		196 70
Clinton Station		5 02
Cut-off Valley Creek		120 00
Eagle Creek		85 00
Eighty-three-mile		36 00
Fifty-seven-mile Creek		22 16
Sawmill		6 00
School-house		6 00
Sixty-one-mile		6 50
Carried forward	$	1,277 00

Brought forward	$	1,277 00
BRIDGES GENERALLY—*Continued.*		
Lillooet District—Concluded.		
Eastern Division—*Concluded.*		
Upper Dog Creek		18 00
General supplies		69 00
Western Division—		
Alexander Creek		240 25
Big Creek		6 00
Big Horn		15 00
Birkenhead River		17 85
Bridge River (mouth of)		11 25
Cayoosh Creek		60 75
Cedar Creek		27 00
Chilcotin Suspension		39 00
Dickey Creek		36 00
Dry Gulch		285 35
Fraser River		12 00
Hanceville		115 00
Hell Creek		69 87
Leon Creek		31 50
Lower Chilcotin River		561 26
Riley Creek		72 00
Seton Lake Creek		109 00
South Fork Creek		57 00
Spider Creek		130 00
Ward's Ferry		51 00
General supplies		16 50
Total	$	3,327 58
Nanaimo District.		
Chase River, No. 1	$	113 87
Nanaimo River		51 75
Total	$	165 62
Newcastle District.		
Bush Creek	$	119 03
Davis		263 10
First Creek		19 60
Morrison's, No. 2		30 57
Morrison's, No. 3		64 50
Old South Wellington		2 56
Total	$	499 36
Okanagan District.		
Baxter's	$	55 00
Belgo-Canadian		106 00
Cherry Creek, No. 4		20 00
Deep Creek, No. 5		275 69
Dry Creek		8 10
Enderby, No. 1		145 35
Enderby, No. 14		18 00
Carried forward	$	628 14

Brought forward	$	628 14
BRIDGES GENERALLY—*Continued.*		
Okanagan District—Concluded.		
Finlaison's		93 25
Fortune's, No. 2		107 40
Grindrod		104 80
Jack's Creek		130 00
Kaiser's		106 92
Keddleston		2 00
Kingfisher, No. 48		184 85
K.L.O., No. 5		7 59
Lake Shore		15 00
Laurence, No. 7		61 94
Lumby Section		99 45
Miller's		42 77
McDougall Creek		87 00
Nicholl's		116 97
No. 1, Kelowna Section		9 54
No. 2, Kelowna Section		11 88
No. 3, Naramata		24 30
No. 4, Kelowna Section		35 52
North Naramata		60 49
Sigalet		49 14
Thomkinson's		91 48
Trepanier		504 81
Warner's		57 86
Westbank, No. 12		2 72
General supplies		365 55
Total	$	3,001 37
Revelstoke District.		
Beaton	$	55 50
Beatrice Trail		113 00
Big Mouth		100 00
Bowie-Solsqua Trestle		432 43
Camborne Canyon		80 00
Camp Creek		20 00
Carnes Creek		57 00
Clanwilliam-Sicamous		13 15
Columbia River		704 03
Columbia River (north)		1,191 40
Columbia River (south)		977 50
Columbia River (west)		45 00
Craigellachie		181 15
Craigellachie-Taft		1,720 19
Cranberry Creek		309 31
Crawford Creek		86 75
Crazy Creek		560 40
Death Rapids		385 19
Deep Creek		73 50
Downie Creek		168 00
Eagle River		28 15
Eight-mile Creek		66 00
Fish River Trail		285 00
Carried forward	$	7,652 65

Brought forward	$ 7,625 65
BRIDGES GENERALLY—*Continued.*	
Revelstoke District—Concluded.	
Fish River (at Camborne)	15 25
Fish River (at Mammoth)	214 60
Five-mile branch roads	215 00
Galena Bay	207 50
Goldfields	40 00
Goldstream	90 00
Greeley Creek	126 50
Illecillewaet River (lower)	199 44
Illecillewaet River (upper)	646 41
Illecillewaet River (east)	655 15
Laforme Creek	1,274 60
Landslide Trestle	232 70
Laurie	33 75
Lonzo	1 50
Mammoth	40 00
Menhinick Creek	48 00
Mica	53 35
Montana Slough	3 00
North Fork	42 00
Old Gaol and Power-house	6 00
Pool Creek	576 80
Power-house	168 85
Revelstoke roads (east)	1,080 85
Sable Creek	24 40
Salmon River	118 75
Six-mile branch roads	307 00
Solsqua-Bowie	360 00
Taft	6 60
Tumwata	6 00
Waverly Trail (North Fork)	182 85
Total	$ 14,629 50
Richmond District.	
Eburne	$ 2,051 43
Upper Squamish	1,146 69
Total	$ 3,198 12
Saanich District.	
Helmcken	$ 40 00
Similkameen District.	
Allison-Copper Mountain	$ 28 50
Ashnola Trail	2,227 70
Beaver Creek (Fairview-Penticton Road)	276 75
Beaver Creek (Penticton-Fish Lake)	296 05
Cawston Subdivision (at South Keremeos)	307 87
Chopaka	115 08
Copper Mountain Road	362 10
Daly Island Slough	327 85
Carried forward	$ 3,941 90

Brought forward	$	3,941 90
BRIDGES GENERALLY—*Continued.*		
Similkameen District—Concluded.		
Eagle Creek		15 40
Fifteen-mile Creek		39 00
Five-mile Creek		286 50
Four-mile Creek		18 58
Gulch-Fairview-Oak Creek		120 50
Keremeos Creek (near Richter's)		32 50
Keremeos Station		33 17
Kettle Valley		704 98
Little Bear Creek		115 75
Nahumption Creek		243 75
Okanagan River (at Fairview)		94 50
Okanagan River (near Penticton)		15 00
Okanagan River (Penticton-Summerland)		34 02
Okanagan River (Penticton-Trout Creek Road)		10 50
Osoyoos Lake		28 50
Penticton-Fish Lake		336 44
Sawmill Creek		239 13
Sheep Creek		74 10
Similkameen River (at Allison)		16 05
Similkameen River (at Ashnola)		183 75
Similkameen River (at Keremeos)		256 54
Similkameen River (at Princeton)		358 23
Similkameen River (South Keremeos)		122 78
Siwash Creek		192 55
Tulameen River		93 65
Twenty-mile Creek		195 23
Ward Creek		565 30
Wolf Creek		979 88
General supplies		67 00
Total	$	9,415 18
Skeena District.		
Bella Coola Division—		
Bella Coola	$	2,558 93
Canoe Crossing		181 32
Four-mile		2,835 58
Middle (Hagensborg)		45 50
Saloomt		751 80
Thirty-five-mile		72 00
Thorson's Creek		55 92
Interior (North) Division—		
Bulkley River (Hazelton)		26,580 94
Canyon Creek (Hynes Settlement)		904 98
Kitsequelka River		77 03
Kuldo		240 05
Main Fork of Telkwa River		1,364 87
Mission Creek		194 36
Moricetown		955 06
Pine Creek		959 55
Skeena River (Kispiox Valley)		1,020 44
Carried forward	$	38,798 33

Brought forward	$ 38,798 33
BRIDGES GENERALLY—*Continued.*	
Skeena District—Continued.	
Interior (North) Division—*Concluded.*	
Skeena River Suspension	111 25
Smithers	81 00
South Fork of Telkwa River	746 71
Telkwa-Canyon Creek	150 60
General supplies	437 00
Interior (South) Division—	
Bickle Road-Main Road	217 50
Burns Lake	2,216 27
Dodd's Creek	225 61
Endako Creek	913 97
Francois Lake Road	187 50
Houston-Bulkley River	1,286 87
Keefe's Landing-Ootsa Lake	264 57
Main Trunk Road	321 46
McDonald's Landing	105 00
Pleasant Valley	20 00
Telkwa	2,617 47
General supplies	67 50
Upper Division—	
Cedarvale	3,892 80
Copper River	75
Kitwanga	591 00
Phipps Creek	154 00
Price Creek	327 65
Two-mile Bridge (Gold Creek-Copper River)	209 50
General supplies	24 70
Lower Division—	
Alwyn Creek	389 89
Breckenridge-Copper City	124 18
Braun's	64 00
Cedar River	450 20
Copper City	163 43
Corlette Road, No. 1	458 98
Corlette Road, No. 2	348 31
Corlette Road, No. 3	182 00
Deep Creek	7 00
Green River, No. 1	607 95
Green River, No. 2	345 00
Hughes Road, No. 1	451 76
Mile 88	241 45
Mud Lake	3 50
Smith's Island	378 84
Spring Creek	21 00
Thornhill Creek	790 61
General supplies	35 50
Portland Canal Division—	
Bear River	4,018 80
Bitter Creek	2,443 75
Bug Creek	195 95
Canyon Creek	8 75
East Fork of Kitsault River	36 15
Carried forward	$ 65,736 01

Brought forward	$ 65,736 01
BRIDGES GENERALLY—*Continued.*	
Skeena District—Concluded.	
Portland Canal Division—*Concluded.*	
Eight-mile Creek	98 00
Kitsault Ferry	98 50
Nass Valley	397 75
Salmon River	549 75
General supplies	21 00
Queen Charlotte Islands Division—	
Kundis River	619 20
Lawn Hill	173 35
Miller Creek	539 45
Queen Charlotte City	782 00
Total	$ 69,015 01
Slocan District.	
Cariboo Creek	$ 18 00
Carpenter Creek	363 45
Cedar Creek	14 00
Kooskanax	30 00
Lemon Creek	671 85
Mineral City	9 00
Mosquito Creek	2,390 79
McCormick	48 50
Nakusp	10 00
Passmore	1,516 11
Perry's Siding	6 00
Silverton-Four-mile (general)	88 43
Silverton-Four-mile, No. 1	124 00
Silverton-Four-mile, No. 2	322 05
Silverton-Four-mile, No. 3	238 44
Silverton-Four-mile, No. 4	28 00
Silverton-Four-mile, No. 5	32 00
Silverton-Four-mile, No. 6	127 50
Silverton-Four-mile, No. 7	248 00
Slocan River (at Appledale)	5,253 84
Ten-mile Creek	788 75
General supplies	20 43
Total	$ 12,349 14
Yale District.	
Ashcroft	$ 235 93
Canyon	55 00
Carrington	1 50
Colletville	295 50
Cottonwood Island	9 25
Emory	104 02
Floodville	1,108 12
Harper's Mill	56 94
Harrison Wharf	3 00
Hope	28 00
Iron Mountain	90 00
Lake	48 29
Carried forward	$ 2,035 55

Brought forward	$ 2,035 55
BRIDGES GENERALLY—*Continued.*	
Yale District—Concluded.	
Manion	446 99
Maria Slough	2 00
Mill Creek	2 73
Nahomeen Creek	57 50
Silver Creek	1,138 09
Spences	6 00
Styrne Creek	300 00
Ten-mile Creek	112 12
Tingley	54 00
Voigt	786 65
Wallachin	9 50
Yale Creek	285 91
Total	$ 5,237 04
Ymir District.	
Anderson Creek	$ 162 99
Castlegar-West Robson Road	235 93
Cement Creek	111 00
Cottonwood Canyon	328 25
Creston-Port Hill Road	16 00
Crescent Valley	30 10
Duck Creek	349 33
Duck Creek Flats	55 07
Fairview Streets	3 67
Goat Falls	3,234 85
Goat River	324 20
Goatee (near Creston)	1,513 29
Grady's Creek	26 60
King Creek	82 00
Lambert's	9 08
Lizard Creek	21 56
Nelson-Balfour Road	295 00
Nick's Bridge (Reclamation Farm)	381 50
Pass Creek	2,021 70
Pend d'Oreille River	807 65
School	17 00
Silver King	280 11
Stony Creek	14 25
Syringa	185 80
Taghum	41 00
Trail-Columbia	91 01
Waneta	80
Wild Horse Creek	147 50
Yellowstone, No. 1	1,456 53
General supplies	58 15
Total	$ 12,301 92
Bridge Inspector	2,804 10
Grand total	$347,029 27
Less credit, "Darling"	65 25
Total of bridge expenditure	$346,964 02

BRIDGES GENERALLY—*Concluded.*

FRASER RIVER BRIDGE. (Vote 185—$150,000.)

Expenditure $150,000 00

Subsidies and Maintenance, Steamboats, Ferries, and Bridges.

BARNSTON ISLAND. (Vote 186—$3,500.)

Expenditure ..... $ 3,440 41

BULKLEY RIVER, SOUTH HAZELTON. (Vote 187—$2,500.)

Expenditure ..... $ 1,272 39

CANOE RIVER. (Vote 188—$800.)

Expenditure ..... $ 783 70

GOLDSTREAM. (Vote 189—$100.)

Expenditure ..... $ 100 00

COLUMBIA RIVER, WATERLOO. (Vote 190—$500.)

No expenditure.

FRANCOIS LAKE. (Vote 191—$7,500.)

Expenditure ..... $ 6,501 08

FRASER RIVER AT ALEXANDRIA. (Vote 192—$1,200.)

Expenditure ..... $ 1,129 32

FRASER RIVER AT MACALISTER. (Vote 193—$5,000.)

Expenditure ..... $ 295 00

FRASER RIVER AT AGASSIZ. (Vote 194—$3,500.)

Expenditure ..... $ 3,500 00

FRASER RIVER AT BIG BAR. (Vote 195—$1,000.)

Expenditure ..... $ 836 85

FRASER RIVER AT CHILLIWACK-HARRISON. (Vote 196—$800.)

Expenditure ..... $ 800 00

FRASER RIVER AT FORT GEORGE. (Vote 197—$1,500.)

Expenditure ..... $ 539 80

FRASER RIVER AT HIGH BAR. (Vote 198—$1,100.)

Expenditure ..... $ 600 00

FRASER RIVER ABOVE LYTTON. (Vote 199—$1,000.)

Expenditure ..... $ 571 50

FRASER RIVER AT MISSION. (Vote 200—$8,000.)

Expenditure ..... $ 5,541 87

FRASER RIVER AT QUESNEL. (Vote 201—$1,800.)

Expenditure ..... $ 1,470 16

FRASER RIVER AT RANCH VALLEY (ESTABLISHED AT DUNSTER). (Vote 202—$3,000.)

Expenditure ..... $ 2,610 22

SUBSIDIES AND MAINTENANCE, STEAMBOATS, FERRIES, AND BRIDGES—*Continued.*

FRASER RIVER AT RUBY CREEK. (Vote 203—$600.)

Expenditure ..... $ 200 00

FRASER RIVER AT LEE'S LANDING. (Vote 204—$525.)

No expenditure.

FRASER RIVER AT SODA CREEK.
(Vote 205—$2,000; S.W., $150 = $2,150.)

Expenditure ..... $ 2,121 01

FRASER RIVER AT 20-MILE POST (ABOVE LILLOOET). (Vote 206—$500.)

Expenditure ..... $ 500 00

FRASER RIVER AT LADNER-WOODWARD.
(Vote 207—$13,500; S.W., $4,100 = $17,600.)

Expenditure ..... $ 17,307 57

EAST SUMMERLAND. (Vote 208—$1,000.)

Expenditure ..... $ 1,000 00

HALL'S LANDING. (Vote 209—$475.)

Expenditure ..... $ 475 00

KELOWNA-WESTBANK. (Vote 210—$1,000.)

Expenditure ..... $ 1,000 00

KOOTENAY RIVER AT LEWIS. (Vote 211—$100.)

Expenditure ..... $ 76 25

KOOTENAY RIVER AT RECLAMATION FARM.
(Vote 212—$1,100; S.W., $125 = $1,225.)

Expenditure ..... $ 1,214 51

NECHAKO RIVER, FRASER LAKE. (Vote 213—$1,000.)

Expenditure ..... $ 833 80

NECHAKO RIVER, FORT GEORGE. (Vote 214—$1,500.)

Expenditure ..... $ 720 33

NECHAKO RIVER (NEAR MOUTH OF CHILAKO RIVER). (Vote 215—$3,000.)

Expenditure ..... $ 2,978 13

NECHAKO RIVER, NEULETT (NEAR VANDERHOOF). (Vote 216—$3,000.)

No expenditure.

NECHAKO RIVER AT VANDERHOOF. (Vote 217—$1,000.)

Expenditure ..... $ 614 80

NORTH THOMPSON RIVER, BESTER, MOSQUITO FLAT. (Vote 218—$600.)

Expenditure ..... $ 562 10

NORTH THOMPSON RIVER, CHINOOK COVE. (Vote 219—$600.)

Expenditure ..... $ 586 14

NORTH THOMPSON RIVER AT JONES.
(Vote 220—$600; S.W., $250 = $850.)

Expenditure ..... $ 823 17

SUBSIDIES AND MAINTENANCE, STEAMBOATS, FERRIES, AND BRIDGES—*Concluded.*

NORTH THOMPSON RIVER AT LITTLE FORK. (Vote 221—$1,150.)

Expenditure ..... $ 920 70

NORTH THOMPSON RIVER, UPPER CROSSING. (Vote 222—$1,200.)

Expenditure ..... $ 1,027 57

SHUSWAP LAKE, SORRENTO, SCOTCH CREEK.
(Vote 223—$1,585; S.W., $250 = $1,835.)

Expenditure ..... $ 1,721 26

SOUTH THOMPSON RIVER AT DUCKS. (Vote 224—$650.)

Expenditure ..... $ 597 97

SOUTH THOMPSON RIVER AT PRITCHARD. (Vote 225—$600.)

Expenditure ..... $ 588 37

STUART LAKE. (Vote 226—$900.)

Expenditure ..... $ 496 25

STUART RIVER, TSINKIT-STUART LAKE ROAD. (Vote 227—$3,000.)

Expenditure ..... $ 2,988 24

SKEENA RIVER AT BRECKINRIDGE. (Vote 228—$1,020.)

Expenditure ..... $ 653 00

COPPER CITY. (Vote 229—$1,300.)

Expenditure ..... $ 724 71

SKEENA RIVER AT HAZELTON. (Vote 230—$750.)

Expenditure ..... $ 190 41

SKEENA RIVER, KITWANGA. (Vote 231—$1,300.)

Expenditure ..... $ 735 97

SKEENA RIVER, MEANSKINISHT-CEDARVALE. (Vote 232—$4,500.)

Expenditure ..... $ 3,015 66

SKEENA RIVER AT PACIFIC. (Vote 233—$4,500.)

Expenditure ..... $ 4,306 01

SKEENA RIVER AT TERRACE.
(Vote 234—$1,380; S.W., $600 = $1,980.)

Expenditure ..... $ 1,915 66

SKEENA RIVER AT USK. (Vote 235—$1,300.)

Expenditure ..... $ 1,083 75

WEST ARM, KOOTENAY LAKE, AT NELSON.
(Vote 236—$3,600; S.W., $1,000 = $4,600.)

Expenditure ..... $ 4,301 10

Bridge-tenders.

CANOE PASS. (Vote 237—$720.)

Expenditure ..... $ 720 00

EBURNE. (Vote 238—$840.)

Expenditure ..... $ 840 00

KAMLOOPS. (Vote 239—$540.)

Expenditure ..... $ 540 00

PITT RIVER. (Vote 240—$1,680.)

Expenditure ..... $ 1,680 00

Subsidies to Steamboats.

NORTH-EAST ARM OF ARROW LAKE. (Vote 241—$3,000.)

Expenditure ..... $ 2,400 00

DOG LAKE, SIMILKAMEEN. (Vote 242—$1,250.)

Expenditure ..... $ 1,250 00

SHUSWAP LAKE. (Vote 243—$4,000.)

Expenditure ..... $ 3,961 54

Miscellaneous.

BOILER INSPECTION (MAINTENANCE, WAGES, REPAIRS, ETC., LAUNCH "ADANAC"). (Vote 244—$2,500.)

Expenditure ..... $ 1,961 28

EXTRA JANITORS AND JANITORS' SUPPLIES. (Vote 245—$20,000; S.W., $4,200 = $24,200.)

Expenditure ..... $ 23,917 82

GARAGE, VICTORIA (CHAUFFEURS' WAGES AND EXPENSES, SUPPLIES AND REPAIRS). (Vote 246—$4,000.)

Expenditure ..... $ 3,892 83

PREMIUM, INSURANCE, GOVERNMENT BUILDINGS. (Vote 247—$16,650.)

Expenditure ..... $ 14,872 00

SPECIAL GUARD, PARLIAMENT BUILDINGS. (Vote 248—$1,500; S.W., $2,700 = $4,200.)

Expenditure ..... $ 4,177 30

Special Aid to Mining Industry.

(Chap. 43—$200,000.)

Fernie.

Road—Bill Nye Mines	$	400 00

Greenwood.

Road—Caron (extension to Sappho Mineral Claim)	$	271 20
„ Rambler and Standard		249 00
„ Sally Wagon		504 78

Kamloops.

Road—Aberdeen Mine (Kamloops-Mamete River)	$	1,399 75
Trail—Siwash Creek		999 35

Kaslo.

Road—Jackson Mine-Bell Mine	$	439 45

Revelstoke.

Road—Big Bend Extension (Columbia River Road North)	$	999 60
Trail—Beatrice		299 50
„ Bernier		496 50
„ Boyd Creek		196 00
„ Flat Creek		199 00
„ Sable Creek		404 50
„ Waverley		186 00

Richmond.

Trail—Indian River	$	4,879 08
„ Lynn Creek		1,000 00

Similkameen.

Road—Ashnola	$	2,499 65
Trail—Copper Mountain		798 75
„ Summit		250 20

Skeena.

Road—Fiddler Group	$	6,000 00
Roads and bridges—Salinas Mine, Alice Arm		367 00
Trail—Cronin's		7,152 34

Slocan.

Road—New Denver-Three Forks-Sandon Wagon	$	992 40

Yale.

Road—Highland Valley	$	3,581 46

Ymir.

Road—Eureka-Granite	$	182 27
„ Green City		2,001 50
„ Molly Gibson		3,919 80
„ Second Relief		378 858
„ Velvet		299 45
Trail—Bayonne		551 65
Carried forward	$	41,899 23

Brought forward	$ 41,899 23

SPECIAL AID TO MINING INDUSTRY—*Concluded.*

Ymir—Concluded.

Trail—Connolly	200 00
„ Corn Creek	250 00
„ Cultus Creek	2,996 60
„ Foghorn	250 00
„ Granite Creek	150 00
„ Hall Creek	250 00
„ Lost Creek	520 95
„ Mount Roberts	115 50
„ McDonald Mine	486 75
„ Nugget	298 25
„ Rossland	438 70
„ Gordon Group	187 00
„ Headland	153 70
„ Dewdney (Rossland Trail)	41 50
„ Stony Creek	417 00
„ Wild Horse	100 00
Total	$ 48,754 98

TENDERS RECEIVED AND CONTRACTS AWARDED.

1st April, 1916, to 31st March, 1917.

SCHOOLS.

Work and Tenderers.	Amount.	Remarks.
COLONY FARM—One-room, large:		
Robinson Bros.	$ 3,100 00	
T. Carson	3,190 00	Accepted; completed.
Sloan & Harrison	4,150 00	
J. Layfield	4,200 00	
Snider Bros. & Brethour, Ltd.	4,599 00	
BULL RIVER BRIDGE—One-room:		
J. T. Giddings	4,069 00	Accepted.
A. McLean	4,260 00	
T. J. Doris	4,870 75	
COUNTY LINE—Two-room:		
G. McWilliam	5,950 00	Accepted; completed.
Sloan & Harrison	6,430 00	
T. Carson	6,900 00	
Robertson & Partners	8,597 00	
Robinson Bros. (too late)	7,465 00	
DUNACH—One-room, large:		
I. C. Jones	2,121 00	Accepted; completed.
Sloan & Harrison	2,190 00	
T. Carson	2,245 00	
N. Olund	2,300 00	
Robinson Bros	2,300 00	
G. McWilliam	2,350 00	
M .T. Finley	2,545 00	
Davies Construction Co	3,576 00	
EXTENSION—Two-room:		
L. C. Young	3,189 00	Accepted; completed.
G. McWilliam	3,225 00	
T. Carson	3,690 00	
W. M. Ross	4,700 00	
J. Koskela	4,600 00	
LADYSMITH—One-room, large:		
G. McWilliam	2,670 00	Accepted; completed.
B. C. Footner	3,260 00	
T. E. Crowell	3,380 00	
MAPLE RIDGE—Two-room:		
G. McWilliam	4,775 00	Accepted; completed.
T. Carson	5,390 00	
Sloan & Harrison	5,830 00	
Adair, Hudson & Elliott	6,150 00	
Finley & Mills	6,167 00	
Robinson Bros.	6,200 00	
MERRITT—Heating and repairs:		
C. Beck	4,074 50	Accepted; completed.
MARA—Two-room:		
I. C. Jones	6,840 00	Accepted; completed.
T. Carson	7,000 00	
McBRIDE—Two-room:		
Bronger & Flynn	8,700 00	
Second tender:		
Bronger & Flynn	8,500 00	Accepted; completed.

SCHOOLS—*Concluded.*

Work and Tenderers.	Amount.	Remarks.
NICOMEN—One-room, large :		
Sloan & Harrison	$ 2,400 00	Accepted; completed.
A. B. Catherwood	2,700 00	
Finley & Green	2,966 00	
OYAMA—Two-room :		
I. C. Jones	7,460 00	Accepted; completed.
T. E. Crowell	7,800 00	
SILVERDALE—One-room, large :		
G. McWilliam	2,200 00	
Robinson Bros	2,250 00	
Robinson Bros (alternate)	2,400 00	
Sloan & Harrison	2,380 00	
T. Carson	2,470 00	
T. Carson (alternate)	2,350 00	Accepted; completed.
M. T. Finley	2,700 00	
SIDNEY—One-room :		
Cancelled.		
SOOKE—One-room, large :		
Parker & Grace	3,100 00	Accepted; completed.
W. M. Ross	3,350 00	
G. McWilliam	3,600 00	
J. Moggey	4,500 00	
SILVERTON—Two-room :		
G. McWilliam	6,750 00	Accepted; completed.
SOUTH OKANAGAN—Two-room :		
T. E. Crowell	7,500 00	
G. E. Ritchie (late)	12,420 00	
TROUT CREEK—One-room, small :		
Parker & Grace (no deposit cheque)	2,550 00	
Malcolm & Co	2,650 00	
T. Carson	2,870 00	Accepted.
G. McWilliam	3,200 00	
H. W. Harvey	3,400 00	
LUMBY—Heating only :		
No tenders received.		

SCHOOL-DESKS.

Clarke & Stuart Co	$ 2,287 50	
Clarke & Stuart Co. (alternate)	2,340 00	Accepted.
Macey Office Equipment Co	2,437 50	
Thomson Stationery Co.	2,491 50	
Weiler Bros., Ltd	2,576 25	
Victoria Furniture Co	2,563 75	
Victoria Furniture Co. (alternate)	2,577 50	
W. N. O'Neill Co.	3,212 50	

Fuel.

Tenderers.	Nut.	Lump.			
	Parliament Buildings.	Parliament Buildings.	Government House.	Victoria Court-house.	Normal School.
	Per Ton.	Per Ton.	Per Ton.	Per Ton.	Per Ton.
Victoria Fuel Co.*	$6 25	$7 50	$7 65	$7 60	$7 90
Kirk & Co.	6 45	7 85	7 50	7 50	7 95
Mackay & Gillespie, Ltd.	6 40	7 65	7 65	7 65	7 75
Hall & Walker	6 40	7 80	7 60	7 60	7 90
J. E. Painter & Son	6 40	7 70	7 80	7 65	7 90

* Awarded.

Vancouver Court-house and Normal School.

Tenderers.	Lump.	Nut.	Pea.
	Per Ton.	Per Ton.	Per Ton.
McDonald & Marpole	$7 85	$6 75	$5 05
L. M. Duthie Coal Co.	7 85	6 75	5 05
Evans, Coleman & Evans	7 85	6 75	5 05
McNeill, Welsh & Wilson	7 80	6 75	5 05
J. Hanberry & Co.	7 85	6 75	5 05
Middlesborough Collieries, Ltd.	7 00*	5 85	4 75
Island Coal & Coke Co.	7 25	5 75*	4 75

* Awarded.

Sale of Hay, Songhees Reserve.

R. W. Short, $5 per ton. Accepted.

Ferry, Arrowhead-Beaton.

J. Fitzsimmons (accepted)	$ 2,400 00
C. F. Lindmark	3,000 00
J. B. McGaghren (late)	2,000 00

Ferry, Fraser River at Agassiz.

	Tenderers: W. McGrath	V. G. Haslam.
Foot-passengers (adults), each	$0 25 single	$0 25 return.
Foot-passengers, children under thirteen years	Free	Free
Auto with driver and passengers, return	$1 00 to $1 50	$1 25
Passenger with saddle-horse, return	75	50
Passenger with horse and buggy, return	1 00 to 1 25	75
Driver with two horses and wagon, loaded or unloaded	1 25	1 00 unloaded. 1 50 loaded.
Driver with four horses and wagon, loaded or unloaded	1 50	1 50 unloaded. 2 00 loaded.
Cattle and horses, per head	25 each way	50
Sheep, per head	15 "	25
Hogs, per head	15 "	25
Calves and colts under one year old, per head	15 "	25
Freight, perishable, per 100 lb.	1 00 per ton	10 per 100 lb.
Freight, unperishable	1 00 "	10 "

Above offers were not accepted, but a free ferry was installed. Subsidy, $3,500.

Ferry, Fraser River at Hope.

Previous year's charter renewed for three months only.

FERRY, SUMMERLAND-NARAMATA.

	Tenderer: Okanagan Lake Boat Co.
Passenger (adult)	$ 0 25
Child (not in arms) under thirteen years	15
Head of cattle, horse, mule, donkey, etc	75
Calf, sheep, goat, or swine	50
Vehicle with one horse and driver	1 25
Cart or wagon with one horse and driver, loaded	1 50
Vehicle with two horses and driver, unloaded	2 00
Vehicle with two horses and driver, loaded	2 50
Auto and driver	2 00
Parcels of 25 lb. and under	25
Freight of 100 lb. and under, non-perishable	10
Freight of 100 lb. and under, perishable	15

Subsidy, $1,000 per annum. Tender accepted.

KELOWNA-WESTBANK.

	Tenderer: J. J. Campbell.
Passenger (adult), return	$ 0 25
Child (not in arms) under thirteen years	10
Head of cattle, horse, mule, or donkey	75
Calf, sheep, goat, or swine	50
Calf, sheep, goat, or swine, per scow-load	5 00
Vehicle with one horse and driver	1 50
Cart or wagon with one horse and driver, empty	1 50
Cart or wagon with one horse and driver, loaded	1 50
Vehicle with two horses and driver, empty	2 25
Vehicle with two horses and driver, loaded	2 25
Parcel of 25 lb. and under	Free.
Freight per 100 lb. and under, non-perishable	10
Freight per 100 lb. and under, perishable	10
Motor-cars with passengers and driver	2 00
Children travelling to and from school	Free.

Subsidy, $1,000 per annum. Tender accepted.

REPORT OF INSPECTOR OF DYKES.

Office of Inspector of Dykes,
Victoria, B.C., December 17th, 1917.

Hon. J. H. King,
Minister of Public Works, Victoria, B.C.

Sir,—I have the honour to submit herewith the following annual report relative to the maintenance and management of the Chilliwack, Matsqui, Maple Ridge, Coquitlam, and Pitt Meadows Dyking Districts for the year 1917:—

According to records extending over a period of eighteen years, the freshet in the Fraser River this year was slightly above the average. The sluice-gates at Matsqui closed on May 13th, the reading of the river-gauge being 9.20, and that of the gauge in the ditch, inside the dyke, 8.50.

The river continued to rise steadily until June 12th, when it reached 19.90 on the gauge, the highest point recorded during the season. The second rise occurred on June 21st, when the gauge registered 19.30. The water remained at a high stage until July 10th, when the gauge-reading was again 19.30; the lowest point recorded between the two last-mentioned dates was 17.60 on July 1st. From July 10th the water fell gradually until August 9th, when the sluice-gates opened.

The following table shows the maximum freshet heights in the Fraser for the years mentioned as recorded by gauges established at Chilliwack, Matsqui, and Pitt River. Zero for these readings is low-water level in Pitt River near its mouth, the elevation of which is, approximately, 6.80 feet above that of low water at the Sand-heads:—

Year.	Chilliwack.		Matsqui.		Pitt River.	
	Date.	H.W.	Date.	H.W.	Date.	H.W.
1894	June 5	36.80	June 6	26.37	June 6	14.75
1900	" 27	32.95	" 27	22.85	" 28	12.00
1901	" 2	31.75	" 3	20.90	" 3	10.75
1902	July 5 / June 2	29.30	July 6	19.00	July 6	9.75
1903	" 18	33.80	June 18	23.65	June 18	12.75
1904	" 9	29.45	" 11	18.80	" 12	9.82
1905	" 11	29.00	" 12	17.35	" 12	8.75
1906	" 9 / July 13	26.35 / 26.95	" 9 / July 13	13.95 / 14.55	" 9 / July 12	7.70 / 7.40
1907	June 5	30.45	June 5	18.85	June 5	9.70
1908	" 14	32.15	" 16	21.45	" 15	11.50
1909	" 16	30.05	" 17	19.25	" 18	10.20
1910	May 30	27.65	May 31	16.95	" 1	8.90
	June 12	27.65	June 17	16.70	" 12	8.80
	" 16	28.05				
1911	" 18 and 19	31.25	" 19	20.75	" 19	10.70
1912	" 26	28.40	" 26	17.35	" 27	9.20
1913	" 15	31.05	" 15	20.35	" 16	11.00
1914	" 21	30.50	" 22	18.45	" 23	10.10
1915	May 29	24.00	May 29	12.75	May 29	7.90
1916	June 28	31.15	June 28	20.70	June 29	11.50
1917	" 12	30.60	" 12	19.90	" 11	10.70

The following is a detailed statement of Maintenance Account from October 1st, 1916, to September 30th, 1917:—

SERVICE.	DYKING DISTRICT.					
	Chilliwack	Matsqui.	Maple Ridge.	Coquitlam.	Pitt Meadows.	
					Tract No. 1	Tract No. 2
Fuel on hand Oct. 1st, 1916	$46 00		$ 27 50	$100 00		
Fuel purchased during 1917	642 50					
Electric power purchased during 1917		$3,435 66	1,168 00	788 97	$ 75 11	$272 26
Wages	434 75	905 05	378 16	496 92	42 53	251 00
Repairs and supplies	138 42	57 35	75 96	153 89		31 15
Insurance		187 50	70 00	35 00	17 50	17 50
Annual payment to 1937 on cost of renewing pumping plant	152 53					
Annual payment for installation of electric plant		659 66	1,262 25	1,294 00	412 25	741 82
Telephone service		17 40	25 10	26 95		
Shingling roofs of pump-houses		175 00				
	$1,414 20	$5,437 62	$3,006 97	$2,895 73	$547 39	$1,313 73
Credit by fuel on hand Sept. 30th, 1917	89 00			90 00		
Credit by sale of weighing-scales, boilers, and junk		26 00	30 00	62 00	63 76	15 13
Total cost of pumping	$1,325 20	$5,411 62	$2,976 97	$2,743 73	$483 63	$1,298 60
Maintenance and Management of Dyke.						
Repairs, including wages of caretaker	$908 59	$561 58	$646 30	$327 96	$87 70	$101 00
Brushing dyke	54 00		32 23	87 00	19 25	125 70
Fencing	38 45	68 00				
Annual payment to 1945 on cost of concrete sluices	399 57		631 25	597 69	140 13	127 68
Repairs to discharge-flume			75 00			
Bounty paid on rats		24 80	25 38	9 74	3 80	3 38
Plant			37 10	14 57	5 23	5 00
Shingling Caretaker's house		60 00				
Salary of Inspector of Dykes, proportionate amount	925 44	497 64	408 48	156 60	57 12	54 72
Travelling expenses of Inspector of Dykes, proportionate amount	102 27	59 53	45 51	20 41	5 86	4 27
Salary of clerk and extra clerical work, proportionate amount	926 22	495 65	408 50	153 92	57 33	54 50
Collector's commission and exchange on bank drafts	350 91					
List of registered owners in City and Municipality	15 00					
Expenses of Court of Revision	12 00	3 00				
Total expenditure	$5,057 65	$7,181 82	$5,286 72	$4,111 62	$860 05	$1,774 85

Statement showing the Annual Assessment on Capital Account, and the Assessment on Maintenance Account for the Year ending September 30th, 1917, including the Amount levied on Lands assessable on an Acreage Basis and the Amount assessed under "Minimum Assessment" Charges; also the Rate per Acre.

	Chilliwack.	Matsqui.	Maple Ridge.		Coquitlam.	Pitt Meadows.	
			High Land.	Low Land.		Tract No. 1	Tract No. 2
Annual assessment on capital charge.	$10,000 00	$ 6,250 00	$1,349 04	$5,020 76	$2,899 40	$ 890 77	$ 852 63
Maintenance Charge.							
On lands assessable on acreage basis..	$4,696 70	$7,179 13	$1,110 23	$4,142 96	$3,608 61	$860 05	$1,774 85
On lands subject to minimum rate....	$360 59	$2 69	$18 82	$14 71	$503 01	.....	.....
Acreage assessable on an acreage basis	18,871 66	10,209 08	2,603 55	5,772 95	3,141 62	1,174 78	1,112 22
Acreage subject to minimum rate ..	204 35	0 52	10 38	5 88	95 61	.....	.....
Total acreage	19,076 01	10,209 60	2,613 93	5,778 83	3,237 23	1,174 78	1,112 22
Rate per acre, capital charge.....	$0 52$\frac{4}{10}$	$0 61$\frac{2}{10}$	$0 51$\frac{6}{10}$	$0 86$\frac{0}{10}$	$0 89$\frac{6}{10}$	$0 75$\frac{8}{10}$	$0 76$\frac{7}{10}$
Rate per acre, maintenance charge...	0 24$\frac{9}{10}$	0 70$\frac{3}{10}$	0 42$\frac{6}{10}$	0 71$\frac{7}{10}$	1 14$\frac{8}{10}$	0 73$\frac{2}{10}$	1 59$\frac{5}{10}$
Total rate per acre..	0 77$\frac{3}{10}$	1 31$\frac{5}{10}$	0 94$\frac{2}{10}$	1 58$\frac{6}{10}$	2 04$\frac{4}{10}$	1 49	2 36$\frac{2}{10}$

As there was no sale of lands held for delinquent dyking assessments during the years 1915 and 1916, a considerable amount of arrears had accumulated. In order to reduce this accumulation to some extent, and at the same time taking into consideration the existing financial stringency, it was decided to hold a sale of those lands only (with the exception of streets in municipalities) the assessments on which were delinquent for 1914 and subsequent years, subject, however, to the provisions of the "Military Relief Act."

The following statement shows the net amount of arrears outstanding in each of the different dyking districts for the years 1916, 1915, and 1914 respectively:—

	Chilliwack.	Matsqui.	Maple Ridge.	Coquitlam.	Pitt No. 1.	Pitt No. 2.
Net amount arrears for 1916..	$1,996 20	$1,448 34	$5,913 94	$4,426 53	$28 40	$2,443 17
Net amount arrears for 1915..	605 57	500 66	4,150 87	2,682 88	.....	1,449 86
Net amount arrears for 1914..	78 17	.....	86 73	917 70	.....	.....
Total net amt. outstanding	$ 2,679 94	$1,949 00	$10,151 54	$8,027 11	$28 40	$3,893 03

Pumps.

Although the length of the pumping season this year was not greater than the average, yet on account of the heavy rainfall in the month of June—viz., 8.02 inches—as recorded at the Meteorological Station at Coquitlam, the amount of work required to be performed by the pumps and the consumption of electric power were unusually heavy. During June 1st and 2nd the rainfall in thirty-six hours amounted to 3.19 inches, equal to 86,750 gallons per acre, which rate, extended over the whole of the area tributary to the pumps, would aggregate an enormous quantity for them to dispose of, even after deducting a large percentage for evaporation and absorption by the soil.

As a result of this exceptionally heavy rainfall some of the low-lying areas in the dyked districts were more or less flooded, although the pumps were working to their full capacity until the water was reduced to its normal level.

RIVER-PROTECTION WORKS.

On account of the recently increased dimensions of the gravel-bar near the upper end of the Chilliwack Dyke, effected through the lodgment of snags in the channel of the river, the direction of the current during the freshet of 1916 was deflected with increased force against the river-bank, and caused a considerable amount of damage to the mattressing placed along the foot of the bank, which under ordinary conditions afforded protection against erosion.

As it was a matter of urgency that temporary repairs at least be made before the approaching high-water season in order to prevent serious erosion of the bank in vicinity of the dyke, and as no funds for the purpose were obtainable from the Dominion Government, the necessary work of repairs was performed by the Provincial Government at a cost of $633.90.

Although the work referred to, which is of a temporary nature only, answered the purpose for which it was intended, it will be necessary, in order to safeguard the dyke, that steps be taken as soon as practicable, either to remove the obstructions in the channel, and thereby relieve the pressure against the bank, or else construct protection-work along the exposed portions of the river-bank sufficiently substantial to withstand the force of the current.

If conditions as existing are allowed to continue for a few years longer, there is every probability that encroachment by the river will extend to the present site of the dyke, as once the bank is exposed to the strong force of the current it will soon wash away the margin of less than 300 feet of alluvial soil between the river and the dyke.

Some necessary repairs will require to be made to the protection-work at Matsqui, where a mattress weighted with rock was placed by the Dominion Government about three years ago to protect the bank at the end of the upper wing-dam. This mattress has apparently slid out of position or sunk into the quicksand; as a result the bank has caved in at that point, which is in close proximity to the dyke.

The attention of the Resident Engineer of the Dominion Public Works Department has been directed to the matter, and as the repairs required are for the securing of work undertaken by that Department, it may reasonably be expected that they will receive the required attention. In any case, it will be necessary, in order to prevent the dyke from being undermined, that the repairs in question be carried out before the advent of the next high water.

Referring to the menace to the safety of the dyke in the Maple Ridge District through the encroachment of the Lillooet River, mentioned in the annual report of the Inspector of Dykes for the year 1915, the writer is now in a position to state that the threatened danger has been permanently removed by the diversion of the river, as suggested in the report above referred to. This work was carried out by the Dominion Government during the past summer, and consisted of dredging a new channel, which, by cutting out a sharp bend in the river, improves the navigation and also diverts the flow of the current from the bank of the old channel in the vicinity of the dyke.

Respectfully submitted.

E. A. WILMOT,
Inspector of Dykes.

REPORT OF INSPECTOR OF FACTORIES.

Inspector of Factories,
Vancouver, B.C., February, 1917.

Hon. J. H. King,
Minister of Public Works, Victoria, B.C.

Sir,—I have the honour to submit to you the report of the Factory Inspection Department for the year 1916.

Before taking up in detail the work of the Department, I think it would be well to explain our present administrative machinery. The Department has two Inspectors. During the year we have tried to visit all the places coming under our jurisdiction. The territory, being large, cannot be covered thoroughly in the time at our disposal owing to the rapidly increasing correspondence, as well as to the number of interviews.

To properly inspect the increasing number of factories additional help is much needed. From the standpoint of efficiency our inspection-work should be divided into classes—either of establishments or of kinds of work to be done. The ideal way is to have a Safety Inspector for safety work, a Sanitary Inspector for sanitary work, an expert on ventilation to handle those problems, and the same for lighting, heating, etc. The safety, health, and general welfare of every employee depends to a certain extent on all conditions, and therefore the most logical method of classifying inspections is according to the nature of the problem presented. This, however, is utterly impossible with two Inspectors. Each Inspector has to know something of everything instead of everything of something, and inspects all kinds of establishments for all sorts of conditions.

All the large manufacturing establishments and industrial centres have received attention. For various reasons it was necessary to visit some of these places several times, to the exclusion of some of the small industries. The enforcement of the law regarding elevators in shops and hotels has entailed a large amount of work.

Appended is a list of factories in British Columbia.

I have met with some opposition to orders and the enforcement of the law, but such opposition has been the exception and not the rule. The modern manufacturer is always glad to receive suggestions that will improve the conditions or secure the safety of the workmen in his employ. While we have had some differences of opinion with engineers as to the practicability of the Inspector's instructions, I am pleased to say that only in a very few instances was it necessary to change the instructions. In most instances the order issued was found to be entirely practicable, and this where the engineers in question were safety experts engaged by some of the large corporations for the purpose of reducing hazards. It is not an exceptional occurrence that the trained Factory Inspector has been of valuable assistance to the superintendent of concerns in pointing out the weakness in their equipment for the prevention of accidents. There is a cause for this, and the explanation is simple: While the head of the department of any particular plant is kept busy devising ways and means for the reduction of the hazard of his concern, the Inspectors cover many plants of like kind and therefore are enabled to garner the information of the combined thoughts of many. An Inspector, in the course of his duties, visits every available kind of establishment and examines every make of machine, modern or ancient, and his eye is by dint of service trained to look for little things—for he knows the danger of the big ones.

Safety is the slogan that is now making itself felt around the world, and the question which arises is not means, but ways to produce the desired results of keeping the employees well, happy, and free from injury. About a year ago some of the large corporations started the safety-first movement in their plants. Large expenditures have been made for safety appliances and in safeguarding and improving working conditions. Beginning with the movement, Safety Inspectors have been appointed. Many people busied themselves laughing at the safety crusade; they said

it was a fad. The proposition of safety first does not mean futile investigation after an accident or catastrophe, but the adoption of well-known measures before the accident.

It is of the greatest importance that an Inspector should enforce the law for safeguarding machinery and other dangerous appliances. Devices are on the market for guarding all sorts of machinery, so there is no reason why any machine or its attachments should be left unprotected.

Section 32 (*a*) provides that all dangerous parts of mill-gearing, machinery, and shafting shall be, as far as practicable, securely guarded. The words "or other appliances" should be inserted in this section.

Mr. W. Sydney Smith, H.M. Inspector for Dangerous Trades, in his report on fencing and safety precautions for transmission machinery ("Factory and Workshop Acts," 1901 to 1911), has to say: "By 'transmission machinery' is meant the whole of the mechanical appliances which serve as connecting-links for transmitting the motion of the prime mover to an individual machine."

The term used in the "Factory Act" is not "transmission machinery," but "mill-gearing," which is defined as comprehending every shaft, whether upright, oblique, or horizontal, and every wheel, drum, or pulley by which the motion of the first moving power is communicated to any machine appertaining to a manufacturing process. The words "or other appliances" were first introduced into the definition of mill-gearing by the "Factory and Workshop Act, 1901." This amendment considerably widened the scope of the expression, which now includes not only couplings, flexible shafts, clutches, parts of clutches connected with drums, pulleys, and other similar devices, but also all driving bands, belts, chains, ropes, and straps forming connecting transmission-links between the prime mover, line-shafting, counter-shafting, and the operative wheel or pulley which directly affects the manufacturing process.

It is reported to me that employees remove guards. No person should remove or make ineffective any safeguards required by the Act during the active use or operation of the guarded machine or device, except for the purpose of immediately making repairs thereto, and all such safeguards so removed should be promptly replaced. Orders have frequently to be issued to see that the men use the guards provided, as these are sometimes removed and employers are a little lax about insisting on their use, feeling perhaps that they have done their part in having the guards installed.

ACCIDENTS.

Appended is a list of accidents and their causes. One hundred and eighty-six were reported, of which twenty were fatal.

A number of accidents have been caused by employees cleaning and adjusting machinery while in motion. Section 32 (*b*) says: "No machinery, other than steam-engines, shall be cleaned while in motion, if the Inspector so directs by written notice."

Obstructions in connection with any machine should not be removed under any circumstances until such machine has been stopped.

Machine operators should exercise the utmost care in adjusting machinery, and never do so while in motion. All machinery when in operation is dangerous and should be considered so by the operator. When belts become loose or disabled the engine or motor should be started up slowly when putting belt in place. When belt is not in use it should be hung up in a place where it cannot be caught by the pulley or shaft.

The one remedy to prevent accidents is a law prohibiting any person from operating or assisting in the operation of any machine until the foreman is satisfied that the person understands enough about machinery to enable him to be instructed in the dangers attending his occupation.

Appended is a partial set of rules covering the more important points of danger common to all industries, which have been forwarded to most manufacturers. These rules have been adopted as general orders, and are supplemented from time to time by other orders which the Department may deem necessary after further investigation.

RE "FACTORIES ACT," SECTION 32.

Belts—Guards.—All belts, ropes, or chains driving machinery or shafting, and all secondary belts, ropes, or chains—in short, all belts, ropes, or chains exposed to contact, except belts which are so small or those which move so slowly that there is no possibility of danger, must be guarded.

In all cases the point where the belt, rope, or chain runs on to the pulley, sheave, or sprocket must be guarded.

All horizontal belts, ropes, or chains driving machinery or shafting 6½ feet or less from the floor where exposed to contact must be guarded.

Note.—In guarding overhead belts or rope-drives, unless so guarded that persons cannot pass under them, the width of the guard should not be less than the width of the belt or rope-drive, and the length should not be less than the distance between the outer faces of the two pulleys. It should cover the outer faces of the two pulleys or sheaves and extend upward to such a point and be attached in such a way that in case the belt breaks it will withstand the whipping force of the belt.

Belts running through floors should be boxed or railed to a height of 5 feet.

Note.—In rooms or parts of rooms used exclusively for transmission machinery, such as the ground floor of sawmill and the basement of paper or flour mills, it has been found practical to define certain passage-ways for the use of oilers and millwrights, and to guard the pulleys, belts, and shafts along these passage-ways.

Pulleys—Guards.—All pulleys over 18 inches in diameter which are exposed to contact must be guarded.

Loose Pulleys.—All machines not individually motor-driven must be equipped with a loose pulley or a clutch, or some other adequate means of stopping the machine quickly.

Belt-shifters.—All loose pulleys must be furnished with a permanent belt-shifter, so located as to be within easy reach of the operator. The belt-shifter must be so constructed as to make it impossible for the belt to creep from the loose pulley back to the tight pulley.

All belt-shifters must be equipped with a lock or some other efficient device which will prevent the shifter from being accidentally shifted.

Pulley near Shaft-hanger.—Pulleys must be so placed as to allow the width of the belt between two pulleys or between the pulley and the shaft-hanger, or a hook must be provided or a guard placed adjacent to the pulley to prevent the belt from leaving the pulley.

Clutches.—All clutches must be guarded.

Note.—Practically all clutches have protruding parts or screws which make them as dangerous as set-screws on shafts.

Emery-wheels—Hoods and Guards.—Emery-wheels used for grinding purposes must be equipped with a hood connected with an exhaust-fan or water system. A guard must be provided as a part of the hood construction, or in addition to the hood, which shall be strong enough to withstand the shock of a bursting wheel. This guard must be adjusted close to the wheel and extend over the top of the wheel to a point 30 degrees beyond a vertical line drawn through the centre of the wheel. The exhaust or water system is not required on emery-wheels which are in general use by all employees in common to touch up castings or tools.

Fly-wheels.—All sections of fly-wheels with spokes which are 6 feet or less from the floor and which are exposed to contact must be guarded. Fly-wheels which run in pits must be provided with toe-board around the pit.

Exception.—Where an engine is isolated in a room used exclusively as an engine-room, the fly-wheel of such engine may be guarded with a railing. This railing must be constructed with two rails, the bottom of which must be not less than 18 inches from the floor.

Friction Drives.—The contact faces of all friction drives when exposed to contact must be enclosed.

All friction drives with projecting bolts where exposed to contact must be guarded.

Gears.—All gears where exposed to contact must be entirely enclosed or equipped with a flange-guard which must enclose the teeth of the gears. All arm or spoke gears and all web gears with holes in the web, which are over 18 inches in diameter, where exposed to contact must be entirely enclosed.

Keys and Key-seats.—All projecting keys in shafting where exposed to contact must be cut off or guarded, and all key-seats and projecting ends of shafts where exposed to contact must be guarded.

Ladders with Steel Points.—All portable ladders must be equipped with steel points or steel feet on the bottom, or other effective means of preventing slipping.

Where the platform system is not used in connection with overhead shafting, or the oiling is not done automatically, a safety-ladder should be used, having hooks at one end to hold it on the shaft and sharp metal points at the other to make it secure on the floor.

On cement floors, where metal points are not applicable or permissible, the shoes are made of basswood blocks, which do not readily slip on cement or other smooth floors.

Passage-ways—Keep Clear.—All passage-ways and gangways must be kept smooth and in good repair and free from nails or obstruction over which persons may stumble and fall.

Platforms with Stairways or Stationary Ladders.—All permanent elevated platforms in frequent use must be equipped with a permanent stairway or stationary ladder.

Runways and Platforms—Rails and Toe-boards.—All elevated walks, runways, or platforms, except on loading or unloading side of platforms, must be provided with a guard-rail. A toe-board must be provided to prevent parts from falling off.

Set-screws.—All set-screws on moving parts where exposed to contact must be countersunk or protected by a solid collar, or a headless set-screw must be used. No part of the set-screws must project above the surface.

Shafting.—All transmission shafting in work-room or in passage-ways leading to work-rooms, and located less than 6½ feet from the floor, where exposed to contact must be guarded.

Vertical shafts must be surrounded by a metal or wooden casing.

Counter-shafts set on floor and every other point where belt and pulley meet at a place where a workman may ever have occasion to go must be guarded.

Chains.—All hoist-chains should be periodically tested and examined and annealed at least once in every twelve months.

Sprockets.—All sprockets exposed to contact must be guarded.

Stairways—Handrails.—All stairways must be equipped with handrails, and the rails must be kept smooth and free from nails and splinters. Where the stairway is not built next to a wall or partition, rails must be provided for both sides.

Oiling, Cleaning, and Repairs.—Clause (*b*): No machinery other than steam-engines shall be cleaned while in motion. Clause (*e*): Notice of Inspector as to precautions against accidents.

Workmen shall not undertake to oil, inspect, clean, or repair machines in motion or moving parts of machinery unless previously authorized to do so by the foreman or overseer.

Clothing.—The clothing of employees having to work around moving parts of machinery, and particularly those whose duty it is to oil up and repair machines, must be buttoned and close fitting.

Gloves and Mittens.—It is forbidden to wear gloves or mittens when working at saws or handling belts.

Handling Belts.—It is strictly forbidden to connect by hand a belt more than 3 inches wide unless the power has been slowed.

When a belt is not in use, it must be hung up in a place where it cannot be caught by the pulleys of shafts.

All workmen in a plant must be taught how to make use of the system of signal by which all the machines can be stopped in case of accident.

Children.—Owing to the number of accidents, fatal and otherwise, in allowing children around plants, I beg to draw your attention to this very dangerous practice. Children are naturally mischievous, and if allowed to play or loiter around factories their curiosity will tempt them to meddle with machinery or belting, sometimes with serious results.

Inspector to proceed against Actual Offender.—No person shall remove or make ineffective any safeguard required by the Act during the active use or operation of the guarded machine or device, except for the purpose of immediately making repairs thereto, and all such safeguards so removed shall be promptly replaced.

The term "guarded," when used in these orders, shall mean so covered, fenced, or enclosed that a person in the course of his employment is not liable to come in contact with the point of danger and be injured.

The term "exposed to contact," when used in these orders, shall mean that the location of a thing is such that a person, while in the course of his employment, is able to come into contact with it and be injured.

Wood-working.

Jointers.—All hand-jointers must be equipped with guard or safety cylinder-head.

NOTE.—It has been found from experience that the safety cylinder-head practically eliminates the possibility of serious injury to the hands.

Mats to prevent Slipping.—The floors where operators stand in operating dangerous machines used in manufacturing, such as wood-shapers, jointers, and circular saws, must be provided with rubber mats, gravel roofing-paper, or other effective means of preventing slipping.

Band-saws.—On all band-saws the upper and lower wheels and the saw must be guarded, except the part of the saw below the saw-guide.

NOTE.—The wheels of a band-saw should be treated the same as fly-wheels, and should be so guarded that a person will not be caught if he should stumble and fall against the wheels. It is necessary to guard the upper as well as the lower wheel, because the operator is liable to get up on the machine to oil or adjust it while in motion, and there is always danger of his making a misstep and being caught.

Circular Saws.—All circular saws must be guarded, and all such saws used for ripping, other than self-feed saws, must be equipped with a splitter. All other saws where possible must be equipped with a splitter.

Exception.—On saws while specific work is being done where it is impossible to do the work when the saw is guarded.

Machines with Knife-heads.—All knife-heads of wood-shapers and similar heads of other machines not automatically fed must be guarded, or forms must be used in which the part operated on is securely fastened.

All knife-heads of stickers, planers, etc., where exposed to contact must be guarded.

CHILD-LABOUR.

I am pleased to report that child-labour is something almost unknown in British Columbia. One case was found this year—a boy under the age of fourteen years employed in a machine-shop. However, when the matter was brought to the company's notice, the boy was sent to school.

CANNING-FACTORIES AND EVAPORATORS.

Evaporators are a new industry in the Province. To report on these industries may be of general interest to the public, and it is safe to say that the owners of canning-factories and evaporators fully realize this fact. In the preparation of food products every effort must be made to maintain cleanliness. Modern facilities have been provided in order to accomplish this. Some drawbacks, however, exist where these industries are located in a district where there are no sewerage systems, and in consequence it is most difficult to dispose of the refuse. But there should be no trouble in seeing that proper sanitary accommodations, wash-rooms, and an ample supply of clean towels and soap are provided for the employees. Condensation can also be removed. Floors can be kept clean and dry and in good repair and machinery safeguarded. Where wet processes are used the floors should be so drained that there is no measurable depth of water in which the operators must stand while working. Machines, benches, vessels, and other things in the room should be kept clean and sanitary as the nature of the industry will permit. Water-proof aprons and gum boots should be provided.

Dressing-rooms.—Where the labour performed by the operator is of such a character that it becomes desirable or necessary to change the clothing, wholly or in part, before leaving the building at the close of the day's work, separate dressing-rooms should be provided.

I find that there are several cases where municipal by-laws are violated. As the municipalities have their own by-laws drafted and in force, covering sanitary conditions, I believe it to be the duty of officers of such municipalities to enforce the rules and regulations as embodied in their by-laws. The enforcement of those by-laws by municipal officials would materially assist this Department in obtaining sanitary conditions.

FIRE-ESCAPES.

The question of providing adequate and safe egress from factories and workshops in case of fire is a matter of great importance and one that should receive serious attention. Under section 36, it is the duty of this Department to see that the lives of the workers are protected in every possible way against danger of fire. It is true that the various factories and workshop buildings throughout the Province have been generally equipped with outside fire-escapes, but this protection is far from being the best. The ordinary type of fire-escape has been not inappropriately termed "the human gridiron," because it can be easily put out of commission by

flames or smoke pouring out of the windows opening upon the escape or directly under it. High-grade fire-proof doors and windows wherever they open upon or directly underneath the escape should be so designed and constructed and glazed with wire glass to resist fire. The fact that for many years we have been spared the experience of a serious fire with loss of life is not a guarantee of immunity.

EYE-INJURIES.

Employees should always wear goggles when engaged in operations in which particles are likely to fly into the air. Goggles afford an excellent protection to the eye. The eye-injuries reported could have been prevented if employees had used the goggles supplied them. The foreman in charge of workers who use goggles should be careful to advise them that the face, and not the pocket, work-bench, or wall-nail, is the sensible place for the goggles—that an eye once lost can never be replaced.

HOURS OF FEMALES.

Although the Department has been unable to inspect every establishment employing females, the knowledge that the law is being enforced and that complaints will be followed up has resulted in the general observance of the law. The unusual conditions brought about by the war and demands of the Federal Government furnished reasons for overtime permits being issued. A complaint looked into regarding overtime showed that circumstances were such that it could not very well be avoided. When it is realized that this Department devotes a large part of its time to other duties, I do not feel that we should be criticized too severely for the few petty failures to enforce the law that have been found.

ELEVATORS.

Elevators and hoists are always a source of great danger, but with those that are protected according to law the danger is minimized. The accidents from this source have been greatly reduced in number since the passing and enforcing of the law governing them. Too much care cannot be given to the machinery and inspection of cables. The managing of an elevator is very important. Precautions for the prevention of accidents are not complete unless an alert and vigilant operator is in charge. No elevator operator should allow his car to become overcrowded. It not only interferes with his management of the car, but puts extra strain upon the equipment, which should not be permitted. Four hundred square inches should be allowed each occupant. The operation of a passenger-elevator is a man's job. Eighteen is the minimum age prescribed in most instances. Passenger-elevators should not be operated except by licensed operators. When a person takes up the duties of an operator he should be thoroughly instructed and required to pass an examination and be impressed with the responsibility of his position.

Below is the number of elevators inspected and orders to protect same since the Act was amended:—

	Passenger.	Freight.
Vancouver	82	204
Victoria	15	18
New Westminster	..	3
Prince Rupert	1	3
Anyox	..	1
Nelson	..	5
Fernie	1	2
Revelstoke	..	2
Steveston	..	1
Ioco	..	1
Britannia Beach	1	..
Swanson Bay	..	1
Powell River	..	1
Trail	..	2

Elevator Orders issued.

Install governor	83
„ gates	69
„ covering over car	51
„ tell-tale chains	67
„ lights	64
„ signal system	45
„ buffers	33
„ gate or bars over hatch-covers	6
„ doors, basement	6
„ limit stops	9
„ wire screens	14
Projecting floors—install bevel-guard	90
Enclose car	55
Equip with cable-lock	54
Screens under overhead sheaves	54
Remove mirrors	22
Pits to be kept clean	31
Fractured cables	12
Equip with collapsible gates	15
Board shaftway, basement	20
Board shaftway, all floors	2
Too much lateral	10
Reline shoes	1
Adjust equalizers	1
Renew cables	20
Replank floor of car	1
Adjust limit stops	6
Enclose counterweight runway	28
Total	869

Accidents caused by Elevators.

February 25th. Boy, aged seventeen, employed as regular operator on elevator which is used for the carriage of passengers and freight. He was in the act of bringing down two passengers from the fourth floor, and he pulled the shipper-rope the wrong way, causing the elevator to go up instead of down. He held on to the cable, and when the elevator had reached the fifth floor he was knocked off and fell down the shaft to the pit. Deceased had only been employed at this work a week, and had two days' instructions in operating.

March 27th. Employee, aged fifty years, employed in shop, was running at noon hour to get elevator. He stumbled and fell as elevator was moving upward. His leg was caught between car-platform and gate, and he suffered injuries which proved fatal.

August 12th. Operator, aged nineteen years, employed in hotel, was fatally injured when his head was caught between the car-platform and the door-lintel of the basement floor. Deceased had been employed about three weeks and at time of accident was off duty. He and another operator of about the same age were riding up and down on elevator. They had made three trips from the main floor to the sixth. Operator claims that deceased pinioned his hands on controller, which caused the elevator to go to the basement. Deceased jumped out of the car, and the operator, thinking to play a joke by making him walk from the basement to the main floor, started elevator. Deceased endeavoured to board the car while it was in motion. Owing to the position of the operator and the basement door being about three parts closed, he did not notice deceased attempting to board the car. The first he knew of anything being wrong was when the power went off car, caused by deceased's head and shoulders being wedged between car-platform and the underside of main floor.

May 15th. Operator, hydraulic elevator, hotel annex, had legs badly crushed. He left elevator and same started to creep. He jumped into car, stumbled, and must have caught the

controller with his hand, reversing it, allowing elevator to ascend, catching him between floor projecting and car-platform.

A number of accidents, fatal and otherwise, have occurred in buildings over which this Department has no jurisdiction. After a fatal accident the Coroner's jury added a rider: "We would suggest that the attention of the proper authorities governing public elevators be drawn to this matter, giving them jurisdiction over rooming-houses and apartment buildings."

I would recommend that the Act take in apartment-houses, rooming-houses, office and public buildings, as there are many lives at stake, and as a rule the elevators are not in the best of condition. At present the proportion of accidents is not excessive, when it is considered that this means of transportation carries possibly more people than any other.

"SHOPS REGULATION ACT."

It is the duty of the Inspector of Factories to enforce the provisions of this Act in all portions of the Province not situate in any municipality.

The inspection of bake-shops received the attention of the Inspectors, and results, in so far as they relate to the factory bake-shops, are quite satisfactory. Special effort has been made to keep the small bake-shop up to the requirements of the Act.

RECOMMENDATIONS.

That plans be submitted to the Department before erecting any building or altering any existing building which is intended to be used as a factory. The owner shall submit the plans of such building or the proposed alterations, and the Inspector shall examine the same, and if he finds that the plans provide for the fulfilment of the requirements of the Act as to the construction of factories he shall certify his approval. This would be of great assistance to this Department. Although it would in no way conflict with the "Municipal Act," empowering Councils to pass building by-laws, yet these local by-laws seem to be framed in certain cases in such a way that they have caused more or less overlapping of our duties. In some cases plans have been approved by local officials allowing a manufacturer to cover all the ground with his building, and making no provision for the extra safeguarding of elevator-shafts or adequate fire-protection, lavatory accommodation, opening of employees' doors outwardly, etc. And it might be well to consider taking away from municipalities such powers as now permit them to object to fire-protection, etc., that is imperative to safeguarding life and limb of employees in factories and shops.

That a book be supplied manufacturers to note list of alterations and improvements ordered; such book to be kept in factory.

Also that a book of defaulters be kept in which to enter the dates of cautions administered to operators who fail to use guards provided.

CONCLUSION.

I hope that the efforts in the accomplishment of our duties as Inspectors will receive your approval.

I have, etc.,

C. R. GORDON,

Inspector of Factories.

APPENDIX.

LIST OF FACTORIES.

Abattoirs	2	Planing-mills	101
Bag and sack factories	3	Potteries	1
Baking-powder factories	1	Printing and publishing establishments	75
Biscuit-factories	3	Sail and tent factories	3
Boiler-factories	13	Sash and door factories	47
Bookbinding-factories	5	Sawmills	156
Boot and shoe factories	1	Shingle-mills	114
Box-factories (wooden)	14	Show-case factories	2
Box-factories (paper)	5	Soap-works	3
Box-factories (tin)	1	Soda-water factories	9
Brass-foundries	5	Spice and coffee mills	6
Breweries	15	Steel-foundries	1
Broom-factories	2	Tailor-shops	22
Brush-factories	1	Tanneries	1
Carriage-factories	10	Vinegar-works	1
Car-shops	7	Window-shade factories	2
Chemical-works	2	Brickyards	3
Cider-factories	1	Button-factories	2
Cigar-factories	10	Cement-works	2
Cigar-box factories	1	Coffin-factories	3
Clothing-factories	14	Cold-storage plants	8
Confectionery-factories	6	Concentrators	2
Coopers' workshops	3	Condensing cream and milk	3
Distilleries	1	Creosoting-works	2
Dye-works	6	Drop-forging	1
Edge-tool factories	2	Evaporators	9
Envelope-factories	1	Fish-canneries	49
Flour and feed mills	7	Fish-packing	5
Furniture-factories	5	Gas and electric-light plants	3
Furriers' workshops	3	Glove-factories	3
Galvanized- and pressed-iron works	10	Laminated-material factories	1
Harness and leather factories	2	Nail-works	1
Iron-foundries	25	Oil-refineries	2
Jam, jelly, and pickle works	9	Powder-works	3
Knitting-factories	3	Pulp and paper mills	4
Laundries	31	Repair-shops	6
Lithographers' workships	2	Rolling-mills	1
Machine-shops	45	Shipyards	8
Marble-works	2	Smelters	4
Mattress-factories	3	Structural-iron works	3
Paint-works	2	Sugar-refineries	1
Patent-medicine factories	1	Toy-factories	1
Picture-frame works	4	Wooden-pulley factories	1

FATAL ACCIDENTS.

January 18th. Mill-hand, employed about ten years in mill, five years as log-haul man, distributing logs on log-deck to sawyer. Deceased had gone to place his gloves near the kicker-cylinder to dry. He had his head just over the cylinder when sawyer, who did not notice him, used the kickers to turn over cant on saw-carriage. When kickers are used, cylinder comes up. A log was on the deck and deceased's head was crushed between cylinder and log.

March 15th. Superintendent, shingle-mill. Suffered injuries to the extent of having his stomach ruptured and bowels and liver torn, dying shortly afterwards. Deceased went to place a loose belt on a pulley with the aid of a piece of 1 x 2 cedar about 4 feet long. The belt, being one which runs with a tightener, had to be placed directly around the pulley before putting the tightener down. He endeavoured to do this by putting the end of the stick in the inside of the belt to put it over the face of the pulley. The stick, slipping off the belt, struck the inside lower half of pulley which was running towards him, driving the stick back, striking him.

March 18th. Smelter employee. Killed by electric shock of 550 volts. He received shock while throwing in switch to start head-pumps.

April 5th. Edgerman was putting a piece of 2 x 6 through edger, and started another piece. He lifted rolls, allowing plank in the act of going through edger to fly back, striking him in the stomach.

May 30th. Concentrator employee, employed as mechanic's helper. He was working with other employees in making repairs to bucket elevator used to raise ore. Deceased was leaning over end of projecting shaft which had a collar with two projecting set-screws. While the elevator was being turned over by hand, his jumper, evidently near his throat, caught on the projecting set-screws, which resulted in death by suffocation. His fellow-workmen did not hear him shout or know he was near shafting. Death was practically instantaneous. Previous to accident, safety-collar was removed and collar with projecting set-screw placed on.

June 2nd. Oiler, planing-mill. Employed as oiler for a number of years. Suffered injuries to the extent of having his left leg above knee badly torn. Cause of death, blood-poisoning. Deceased came by his injuries by his overalls being caught on a set-screw projecting ⅜ inch above ring of the one-flange safety type of collar. He had made some repairs to a bearing near this collar the previous evening and was watching the results while the machinery was being started.

July 8th. Employee. Electrocuted. Was employed by Smelting Company, but had been loaned to Power Company to remove some insulators from their auxiliary line. He met his death while doing this work.

July 8th. Labourer employed at sawmill. Was working at the end of jack or log-chute; lost his balance and was drowned.

July 28th. Sawyer in sawmill. He stepped in front of saw-carriage. Either neglected to lock lever or locked it loosely. Carriage ran away and pushed him through saw, cutting him to pieces.

August 14th. Smelter employee. Was working on crane-track erecting a scaffold. Deceased was crushed between crane and wall.

August 15th. Sawmill employee, at time of accident employed as carpenter. He and two other carpenters were constructing a platform about 20 feet beneath transfer-rolls. A slab was sawn from log. Owing to the nature of slab, it could not be sawn into slab-lengths by cut-off saw so as to go by conveyor into burner. Cut-off-saw employee placed slab on board so that he could transfer it along rolls. Slabs of this nature are used for filling-in purposes and are seldom encountered. They are dumped on west side of rolls. Workmen were working on east side. Employee lost control of slab, allowing it to fall, striking deceased on the head.

September 3rd. Night engineer, planing-mill. Suffocated. At time of the fatality he was relieving the day engineer. His duties consisted of keeping steam up in boilers for the use of dry-kiln. Fuel for boilers is supplied from a large fuel-bin with chutes connected to Dutch oven. Bin was equipped with a cyclone which is used to convey the sawdust and shaving from the factory. The day of the fatality being Sunday, and the factory not operating, the cyclone was out of commission. The supposition is that deceased entered the fuel-bin and was engaged in shovelling the sawdust and shaving, which, through dampness and pressure, clogged the opening leading to chute. While engaged in this operation the bin from some unknown cause took fire.

September 29th. Sawmill employee. Fractured skull, dying shortly afterwards. Cause of injury, electric platform-car. Deceased was operating the car and had taken car with lumber to south end of platform, where part of the load was discharged. Was returning with the balance of the load towards the north end of the platform. In passing a certain point, the lumber on the car which was projecting over the end of the car came in contact with one of the rollers placed on the edge of the platform, causing the lumber to swing around. Deceased reversed the controller, which started the car going backward in the opposite direction, with

the result that the lumber knocked him off the car and several pieces fell on top of him. When he fell the back of his head struck the plank covering the trolly-wire.

October 5th. Shingle-mill boom-man. Drowned.

October 9th. Shingle-mill employee. Employed as cut-off man on bolt-saw. Shortly after the regular night shift had commenced work the belt driving conveyor broke. The engineer had just finished lacing the belt and had gathered up his tools and was on his way to engine-room when he heard a cry. Before the engine could be stopped the deceased's arm had been torn from its socket and he had fallen to the floor. Shafting is situated 10 feet 6 inches from the floor. It is supposed the belt left pulley and deceased went up on ladder nailed to post to adjust the belt.

November 5th. Smelter employee. Fractured skull. Was working on construction-work. Fell 25 feet, striking concrete floor.

November 11th. Lineman, employed by smelter. He was working on top of the tower-car. Locomotive ran into car, throwing him to track and run over by locomotive.

November 12th. Oiler in sawmill. Deceased was oiling the bearings on conveyor which carries refuse to the mill-burner. In some unaccountable manner he fell a distance of 60 feet, in his fall striking a cement pillar. He was rushed to the hospital, but died without regaining consciousness.

November 15th. Employee, flour-mill, machine operator, known as smutman. Was instantly killed by being caught on friction-clutch in the basement of mill.

September 26th. Foreman millwright, shingle-mill. Conveyor-chain came off sprocket and wedged, causing the top machinery to stop. Quarter-twist belt on lower pulley became wedged between pulley and bridge-tree. Lower pulley kept revolving, causing belt to burn. The oiler went up to the top side to height of about 20 feet to see what was wrong. Deceased in the meantime came along and tried to remove the belt. This was impossible and contrary to the rules of the mill. He turned his back to the shafting and looked up to speak to the oiler, and was then caught by a projecting set-screw in a safety-collar.

LIST OF ACCIDENTS.

January, 1916.

January 1st. Paper-mill employee. Contused wound, left forefinger. Hit by piece of concrete.

January 3rd. Lumber-mill employee. Thumb of left hand torn out at second joint. Mill foreman and millwright. A stick had gotten into conveyor in such a manner as to cause chain to come off sprocket. In putting this chain on sprocket, thumb was accidentally caught in chain. To save being drawn around shaft he had to pull thumb off. This accident would have been prevented if machinery had been slowed down when putting chain on sprocket.

January 6th. Shingle-mill employee. First joint of third finger cut off and inner side of second finger lacerated. While sawing shingles at his machine he claims that ice or snow from the blocks got on the floor, causing him to slip and strike the jointer-saw with his hand. Jointer-saw equipped with guard over top.

January 8th. Smelter employee. Bruised shoulder and hips and torn ankle. Hit by auxiliary hook, Niles crane.

January 11th. Paper-mill employee. Crushed foot. While untying a rope which was holding a timber for a small roof he was erecting over a scale, he stepped on a cross-timber when the elevator was being lowered, and caught his foot between elevator and timber. Injured was cautioned by employee working with him to watch that elevator did not catch him.

January 15th. Engineering-works employee. Three fingers of right hand amputated. Employed as sweeper. Tripped over a shovel, causing him to fall towards lathe. In an effort to save himself, his right hand was caught in the change gears of turret-lathe, such gears crushing the boy's fingers. The gears in question have always been covered with a guard, such guard being provided with two sliding panels to allow of access to gears. On examination of this accident the bottom panel was found missing, thereby exposing a live gear. The panel in question had undoubtedly been removed during the past few days, and probably taken by some

person to light a fire close by. "Salamander stoves used throughout this shop." The guard was quite intact ten days before, as the foreman and my father had occasion to examine the gears on the lathe.

January 28th. Paper-mill employee. Cut fingers and back of hand burned. Hand caught between shaft and drum.

January 22nd. Smelter employee. Leg bruised. Got his leg caught by stern-line of barge which was being moved along wharf.

FEBRUARY, 1916.

February 10th. Smelter employee. Broken leg. Fell off platform.

February 10th. Smelter employee. Burns on neck and body. While moving pot of matte, pot turned over.

February 15th. Smelter employee. Badly bruised knee, necessitating amputation. Locomotive backed up, causing his leg to get jammed between car and projecting plank.

February 19th. Oil Company employee. Burned on face and hands. While starting pump was burned by acid.

February 21st. Smelter employee. Third finger of left hand bruised and bone fractured. While about to blast some frozen rock in the bins a rock fell on his left hand, causing bruises and fracture.

February 22nd. Can Company employee. Nail torn loose from finger. Caught in curling-machine. Absent from work seven days.

February 22nd. Soap-works employee. Three fingers more or less lacerated. Caught hand in crank action, cutting and creasing press. Doctor reports no permanent injury.

MARCH, 1916.

March 3rd. Can Company employee. Three fingers of left hand amputated. Had his fingers under die when press was tripped.

March 3rd. Can Company employee. Lacerated wound of right ring-finger; five stitches.

March 3rd. Lumber-mill employee. Slight injury to eye. Struck by pieces of saw in machine-shop.

March 4th. Oil Company employee. Foot cut and swollen. Ran nail into left foot.

March 8th. Shingle-mill employee. First and second fingers amputated. Injured was facing shingle spalt and his hand was caught by jointer-saw on an upright shingle-machine.

March 10th. Oil Company employee. Finger-nail taken off second finger and third finger severed at first joint. Caught on cable while unloading gravel.

March 13th. Shingle-mill employee. Flesh-wound, forearm. Cut on cut-off saw housed to centre of arbor.

March . Shingle-mill employee. Third and little finger cut. Had to amputate third finger at first joint. While picking out some pieces of checked and broken shingles his fingers came in contact with saw.

March 17th. Lumber-mill employee. Foot injured. Straightening edgings and slabs on slasher-table.

March 17th. Lumber-mill employee. Splinter through back of hand. Feeding rip-saw, sliver flew back and pierced hand.

March 18th. Lumber-mill employee. Loss of eye. Hit in the eye with cable on log-haul.

March 18th. Shingle-mill employee. Index finger cut. While waiting for blocks was jointing shingles, and cut finger on saw.

March . Box Company employee. Terminal phalanx of second finger of left hand and also index finger of left hand slightly injured. Tips of index finger and second finger of right hand slightly injured. Fingers caught in ending-machine.

March 27th. Shingle-mill employee. While placing a 24-inch shingle to joint the shingle was checked and split, catching the jointer-saw and flying back, striking his left wrist. The force of the blow caused his arm to be knocked against the shingle-saw, causing a deep bruise and severing the skin.

March 28th. Oil Company employee. Bruised thumb, right hand. Working on punching-machine in boiler-shop.

March 29th. Planer-feeder. Index finger cut. While machine was in operation injured man put his hand in side-head to remove sliver.

March 30th. Oil Company employee. Jammed right limb between track and sleigh.

April, 1916.

April 4th. Paper-mill employee. Lacerated wound, right thumb, with compound fracture, necessitating amputation at terminal joint. Wound on outside of right foot. Injured was coming down by cut-up saw to slasher-deck and walked across saw just as it was coming up to cut off some lumber. He tripped on saw, and in trying to save himself cut off his thumb and bruised his foot.

April 4th. Shingle-mill employee. Hand cut. Was using wrench on spur-roll clamp-bolt and his knuckle came in contact with the saw.

April 14th. Shingle-mill employee. Cut fleshy part of hand at base of thumb. Doctor, on examination of the cut, found that it was only a flesh cut and that neither bone nor cord of thumb had been touched.

April 15th. Paper-mill employee. Cut wrist. Slipping, stuck hand through window.

April 17th. Lumber-mill employee. Two fingers cut off. Injured was cutting shingle bands 1 x 2 x 20 inches. Saw equipped with splitter and wooden guard over saw. Slide-table with hand-hold which would keep his hand 6 inches away from saw. Must have put his hand on splitter at back of saw.

April 24th. Paper-mill employee. Fracture of right forearm and wound of same. Injured was foreman and millwright. He came down from cutting-up floor, as he had been told by one of the men that one of the conveyor-chains to chipper had come off the idler. When he got up on the platform to adjust it he was leaning over to see it, when the transfer to edger started, hitting him on the chest, causing him to overbalance, and to save himself he thrust out his hand to catch hold of something. Hand caught in chain and dragged it around sprocket. It also threw him off the platform on to concrete floor.

April 25th. Shingle-mill employee. Toe of right foot cut. Toe of foot came in contact with jointer-saw, causing a deep cut through the nail.

April 29th. Shingle-mill employee. Cut first finger of right hand about second joint.

April 25th. Lumber-mill employee. Little finger jammed. Handling timbers in planing-mill.

April 27th. Lumber-mill employee. Arm broken and spine injured. Injured man was pulling lumber from chains; clothes caught in or on live roll.

May, 1916.

May 1st. Smelter employee. Compound facture of right arm. While unloading coke from barge with clam-shell which had already dug down about 8 feet in main hatch of vessel, engineer suspended unloading operations to examine his engine, which had been running too fast. While he was doing this injured thought he would have time enough to screw down grease-cups inside clam-shell, which was open in readiness for digging. This he did without notifying the engineer, and left a green man to notify engineer not to start digging. When engineer returned this man gave him the go-ahead signal instead of stop signal. Engineer started up slowly, allowing the clam-shell to partly close on injured's arm, causing a compound fracture.

May 8th. Shingle-mill employee. Slight jam, third finger of right hand. He started to treat finger himself, and in doing so used electric tape for wrapping finger. He wrapped it so tight that it must have stopped circulation, which left finger in bad condition.

May 10th. Lumber-mill employee. Two toes crushed. Caught in slasher-chains.

May 13th. Shingle-mill employee. Left clavicle broken. He was taking blocking from front of wheel-truck to allow truck-load of shingles to enter kiln. Was caught between truck-load already ahead and the one he was working with behind.

May 18th. Shingle-mill employee. Flesh-wound on second and third finger of left hand.

May 19th. Shingle-mill employee. First finger of left hand amputated between first and second joint. Slightly cut second finger. While sawing shingles allowed hand to come in contact with saw.

May 19th. Smelter employee. Badly cut hands. Injured was up guy-pole to place tin shim to protect pole from wire. Bark was left on pole. The bark broke out from his spurs and to save himself he grabbed the shim.

May 26th. Lumber-mill employee. Bone in foot broken and knee injured. Foot caught in bull-chain.

May 30th. Oil Company employee. Scalp-wound on head. Wooden block fell on injured person's head.

May 31st. Rolling-mill employee. Slight skin-burns. Injured employed as rougher in rolling-mills.

JUNE, 1916.

June 1st Lumber-mill employee. Back bruised.

June 3rd. Smelter employee. Badly bruised left forearm. Injured and partner were felling a tree. Partner went to get another wedge. While away a gust of wind took tree down; it hit another tree, bending it over. When it sprang back it threw broken limbs in the air, one striking injured.

June 3rd. Oil Company employee. Bruised left arm and right knee. Fell during fire-drill.

June 5th. Oil Company employee. Burned left leg. Slipped into condensor at crude stills.

June 5th. Oil Company employee. Eyes injured. Got acid in eyes whilst blowing out an air-line.

June 6th. Oil Company employee. Sprained left ankle. Fell from fire-wall.

June 7th. Pulp-mill employee. Face and hands burned. Injured was in act of starting a fire under one of the oil-boilers. It appears he had not the fan going at the time and there was an accumulation of escaped gas, which exploded outward when he applied the torch, causing severe burns to face and hands.

June 9th. Planing-mill employee. Three fingers on left hand stripped from first joint to finger-tips

June 15th. Lumber-mill employee. Fingers cut. Carriage was not running and injured man was cleaning around saw.

June 16th. Lumber-mill employee. Cut fingers while cleaning sawdust-chute under resaw.

June 18th. Smelter employee. Fractured pelvis. Fell between two joists.

June 19th. Smelter employee. Fractured skull. Caught between cars he was coupling.

June 19th. Lumber-mill employee. Leg bruised and cut. Jumped from saw-carriage when sawyer lost control of same.

June 19th. Lumber-mill employee. Injured wrist. Saw-carriage got out of control.

June 20th. Cannery Company employee. Flesh-wound, three fingers of left hand. Received injury on a piece of tin while operating a press. Six days absent from work to allow wound healing.

June 21st. Smelter employee. Infected hand. Was unloading bricks and scratched hand on one. He did not go to see the doctor or report the injury until hand got painful on July 2nd. The doctor ordered him to the hospital.

June . Shingle-mill employee. Cut second finger at root of nail. Flesh-wound and slightly touched first and third fingers on points. While jointing shingles he must have gotten fingers under the guard and allowed them to come in contact with jointer-saw.

June 26th. Planing-mill employee. Two fingers stripped. Fingers caught by trimmer-saw.

June 28th. Lumber-mill employee. Crushed in abdomen. Was employed as helper to edgerman. A slab coming down live rolls was caught at end by saw-carriage, which threw it off rolls. Slab caught injured, jamming him against live rolls of runway.

JULY, 1916.

July 2nd. Smelter employee. Bruised leg. Were fighting a bush fire, and to protect railroad had to fell some trees that were on fire. In felling them, one fell back on railroad trestle and broke off an electric trolly-pole. The line crew were getting the broken pole off the track when it slewed, and one of the cross-arms hit McPhee on the head, knocking him off the track.

July 3rd. Lumber Company employee. Broken arm. Caught in belt. Lath contractor. Trying to place belt on pulley while same was in motion.

July 5th. Lumber-mill employee. Part of fingers taken off. Caught in slab-chains.

July 10th. Lumber Company employee. Loss of first finger, right hand. Cut on knee bolter-saw.

July 11th. Shingle Company employee. Small bone in left wrist broken. Block rolled off conveyor.

July 13th. Shingle Company employee. Injured hip and foot. Was lifting up log to pull chain out when bar slipped and log rolled on his right foot and hip.

July 13th. Planing-mill employee. Lost third finger below first joint. Caught finger on planer-knife.

July 15th. Structural-iron employee. Thigh crushed. Was tightening up truss-rod. Jammed between post and travelling crane. Had been working as labourer three days.

July 20th. Shingle Company employee. Second finger of left hand severed between first and second joint. Block fell off shingle-block table, striking his arm, and his fingers came in contact with the saw.

July 21st. Engineering Company employee. Finger severed above second joint. Injured was attempting to wipe off some oil from drill-spindle when rag caught in gears and drew in finger. To do this he was standing on box to reach up. It was against orders. Gears were out of reach under working conditions.

July 24th. Cannery Company employee. Flesh-wound, left hand. Received injury on piece of tin while shearing same on slitters. Off work six days.

July 25th. Lumber Company employee. Broken leg. In cleaning out gondola car, plank was thrown over side of car and hit injured, who was passing along the wrong side of car to get in and help.

July 27th. Lumber Company employee. Fracture of left femur; compound fracture of right arm; lacerated wound on right arm. Was painting post about 3 feet away from a shaft, and in some unaccountable manner his clothes caught on the collar at the end of shaft revolving at 25 R.P.M.

July 27th. Lumber-mill employee. Cut on elbow while operating cut-off saw.

July 28th. Paper-mill employee. Laceration of right knee; stump of little finger of right hand lacerated, requiring amputation; scalp-wound on back of head. In sawing a spruce boom-stick, saw ran into a drift-bolt.

July 28th. Lumber-mill employee. Bruised. Dogger on carriage was thrown from the carriage when it struck the bumper.

July 31st. Shingle-mill employee. Body bruised. While pulling down ventilator-box in kiln the bolt holding weight pulled through the wood, allowing ventilator-box to fall.

August, 1916.

August 5th. Shingle-mill employee. Lost two-thirds of forefinger and one-third of middle finger of left hand. Injured was employed as block-piler, which constitutes the piling of blocks as they cut by slasher-saws from receiving-table on to sawyer's table. He persuaded the regular sawyer to allow him to try to saw shingles, the result being the above injuries.

August 5th. Shingle-mill employee. Right arm bruised; not serious. Clothing caught in saw-arbor.

August 5th. Planer-feeder. Lost index finger and middle finger cut. Was cleaning chips from planer while machine was in operation.

August 6th. Shingle-mill employee. Strained back. Lifting on fly-wheel engine.

August 10th. Lumber-mill employee. Cut in abdomen. Injured was operating a swing-saw. The saw jammed in a piece of lumber. Boss gave it an extra-hard pull, which snapped the leather with the weight used to swing the saw back.

August 15th. Cannery Company employee. Flesh-wound, second finger of left hand. Injured, while inserting plugs in friction-rings on a press, put his hand under the punch to straighten a plug that had slipped loose from the friction-ring. At the same time the punch came down, injuring his finger.

August 19th. Paper-mill employee. Smashed fingers. Caught in calenders on paper-machine.

August 20th. Smelter employee. Simple fracture of first, second, and third metacarpels. While placing furnace buckstay beam with crane anchor eye-bolt in wall with snatch-block attached broke, causing beam to fall, hitting a bar which fell on injured's foot.

August 25th. Mattress-manufacturing employee. Finger cut while machining piece of wood.

August 25th. Lumber-mill employee. Elbow caught in cog gear of printing-press in box-factory.

August 26th. Smelter employee. Fracture of right ulna and radius. Munro put his hand in close to a pulley to take a small rock out. Glove got caught and his hand was taken around pulley.

August 29th. Edgerman. Foot crushed. Was repairing edger and plank fell on foot.

August 30th. Oil Company employee. Piece of steel lodged in eyelid. Backing-out punch broke and piece of steel struck eye. Employees are furnished with safety-goggles, but refuse to wear same.

SEPTEMBER, 1916.

September 6th. Smelter employee. Fracture of third finger of right hand. Injured was swinging a hammer in boiler-shop when the crane went by with a load. His finger was crushed between handle of hammer and the load the crane was carrying.

September 8th. Tail-sawyer. Fractured leg. Board caught in block of carriage, which struck injured man.

September 11th. Mattress-manufacturing employee. Finger cut open. While machining piece of wood, same broke.

September 11th. Ship-building employee. Rupture of ligament of right ankle. Stepping off lumber into a hole. Probable disablement four weeks; no permanent injury.

September 12th. Mattress-manufacturing employee. Collar-bone broken. Timber slipping while putting baling-machine in order.

September 12th. Paper-mill employee. Wound on under-surface of big toe, with enucleation of nails of big and second toes.

September 13th. Log-deckman. Bruised leg. Got in way of steam kicker, which struck leg.

September . Mattress-manufacturing employee. Back wrenched. Turning fly-wheel of baling-machine.

September 19th. Smelter employee. Small toe of left foot amputated. Injured was operating air-hoist on Dock No. 2, loading copper from pile to car to transfer to Dock No. 1 to load on boat. When lifting one sling-load he must have been taking a side-pull at it, as the load swung around and hit another pile, knocking a bar from same, which fell on his foot.

September 20th. Lumber-mill employee. Bruised thumb while tailing edger.

September 21st. Smelter employee. Burns on face, neck, and body. Was helping to dump a car of hot flue-dust, and must have failed to place the dumping-tackle securely around rail, as it slipped off when they dumped car over, allowing dust to come out all at once.

September 22nd. Ship-building employee. Hæmorrhage of right ear; partial deafness at present. Struck by steel plate. NOTE.—After recommendation of this Department, the company is now supplying safety-clamps for lifting boiler-plates. The plates cannot slip through the clamps, thus preventing similar accidents.

September 25th. Lumber-mill employee. End of finger severed. While pulling sliver off side-head of moulder one of the knives caught the end of his finger.

September 26th. Sugar-refinery employee. Bruised head and legs. While loading sugar on trucks the bags slid down the pile from a height of 12 feet, striking him on head and hips.

September 27th. Ship-building employee. Fractured great toe of right foot. Dropped pipe on foot. Probable disablement, three weeks.

September 28th. Ship-building employee. Laceration of right wrist. Put his hand on circular saw. Probable disablement, two weeks.

OCTOBER, 1916.

October 2nd. Planerman. Grinding knife when piece of steel flew up and struck eye. Slight.

October 3rd. Sawmill employee. Forearm badly torn and flesh-wound back of fingers. Injured was pushing sawdust down in conveyor with scraper-handle when conveyor-chain caught handle and threw him off his balance and against the circular head-saw.

October 3rd. Lumber-mill employee. Slight injury to leg. Fell on slasher-chains.

October 7th. Smelter employee. Broken tibia of fibula of left leg. Was brakesman on steam-shovel train. Standing close to cars when craneman put a big stump on car with shovel-dipper, and it toppled over side of car and hit injured man on the leg.

October 8th. Lumber-mill employee. Injured back, bruised ribs, broken finger, and scalp-wound. Was tightening up bolts under log-deck. Wrench slipped, causing him to lose balance; falling over backward, he struck on line-shafting and from there he fell to floor about 8 feet.

October 9th. Lumber-mill employee. Assisting to adjust at planer, injury to finger.

October 13th. Smelter employee. Acute hernia. Operation necessary. In unloading quartz from scow, bucket struck him in abdomen.

October 14th. Paper-mill employee. Cut forearm. Slipped and put arm through window.

October 18th. Lumber-mill employee. Fracture of left leg above ankle. Was unloading truck 2 x 6 on solid pile about 3 feet high, and pile upset on him.

October 20th. Box-manufacturing employee. Left arm severed about 4 inches from shoulder. Jumper caught in gear, drawing arm and injuring it so badly it had to be amputated. Planer in good working condition. All disengaging devices installed, which injured failed to use.

October 21st. Paper-mill employee. Right ankle sprained. Slipped on cement floor. Horseplay caused this accident.

October 21st. Paper-mill employee. Severe laceration of index and second finger of right hand. Caught in calenders.

October 21st. Smelter employee. Lacerated foot. Crane-bale fell on foot.

October 23rd. Laundry employee. Fingers burned. One had to be amputated. Index finger caught in mangle.

October 23rd. Shingle-mill employee. Lost first three fingers of left hand. Was splitting a shingle on jointer-saw. Put his fingers too far over guard, or the saw pulled shingle farther than he expected.

October 25th. Planing-mill employee. Was tailing behind rip-saw and cleaning underneath with a stick when elbow struck saw.

October 28th. Car-shop employee. Right knee crushed and lacerated. Was taking out king-pin from underneath car. When king-pin was released car slipped sideways and jack tipped over, allowing car to settle down, catching leg between draft timber and wheel-flange. Injuries not of permanent character.

October 28th. Oil Company employee. Scalp-wound on head. Struck on head with a piece of coke.

October 30th. Box-manufacturing employee. Loss of thumb on left hand below first joint. Circular rip-saw equipped with guard. Hand followed board underneath guard.

November, 1916.

November 3rd. Cannery Company employee. First and second fingers of left hand badly cut. While inserting plugs in friction-rings on press, put hand under punch to straighten a plug. The punch coming down injured hand.

November 4th. Ship-building employee. Badly cut on head, cheek, ear, and knocked senseless. Was putting crown on stanchions of ship. Stanchion was being raised by hydraulic jack. The foot of jack sank into keelson and caused the jack to press against side of stanchion, breaking off a large piece. Stanchion sprang from under beam, striking injured.

November 8th. Smelter employee. Rupture of iris of right eye. While standing at side of furnace debris was shot out of tuyere-hole and hit him in eye. His vision will probably be about 60 per cent. normal in right eye.

November 8th. Ship-building employee. Cut at back of head and bruised shoulder and leg. Fell from ladder leading into hold. Ladder in good condition.

November 9th. Shingle-manufacturing employee. Slight flesh-wound on first finger of right hand.

November 9th. Smelter employee. Both eyes burnt. Cornea of left one-third burnt. Matte exploded while injured was claying same. Goggles were supplied for this work, but injured failed to use same.

November . Oil Company employee. Cut palm of left hand. Slipped off ladder and cut hand on piece of corrugated iron.

November 14th. Sawmill employee. Fracture of jaw-bone. Loss of sight of right eye. Emery-wheel burst.

November 14th. Ship-building employee. Left thumb nearly amputated. Slight cut on forehead and face. A clamp broke when being used to force piece of planking into place. Clamp struck thumb and injured was knocked off staging, about 10 feet high. An edge fell with him, cutting his forehead.

November 15th. Shingle-mill employee. Loss of third finger of right hand at first joint. Was clipping shingles in absence of sawyer. Not his work.

November 15th. Paper-mill employee. Severe laceration of three fingers of left hand. Was putting paper into calenders and caught fingers in same.

November 16th. Paper-mill employee. Laceration of right instep; contusion of right ankle; swelling of dorsum of foot. Caught foot under car-wheel.

November 18th. Ship-building employee. Face cut. Pneumatic wood-borer struck injured man under the left eye.

November 20th. Smelter employee. Broken ankle. Sacks of cement fell on him.

November 20th. Ship-building employee. Cut over left eye about 1 inch long. Struck by piston of pneumatic hammer, used in driving tree-nails.

November 21st. Lumber-mill employee. Scalp-wound 2½ inches long. Cause of wound unknown.

November 21st. Paper-mill employee. Broken rib, left side. Overbalanced and fell on edge of sluice.

November 22nd. Cannery Company employee. First finger of right hand badly bruised. While perforating top of spice-can injured put her hand under punch to catch a top that had slipped loose. As punch came down it injured her finger.

DECEMBER, 1916.

December 4th. Cannery Company employee. First finger, second, and ring fingers amputated. While cutting frictions out of No. 2½ sanitary fruit-ends put her hand under punch to guide end to place, instead of using stick provided.

December 5th. Shingle-mill employee. Left arm cut off below elbow. While injured was splitting and barking shingle-blocks one piece of a block, which was evidently covered with ice or frost, slipped out of his hand, and as he reached across the saw to pick up the block his arm came too close to the saw and was thus injured.

December 7th. Shingle-mill employee. Side injured. Fell on his left side when foot went through a hole.

December 7th. Lumber-mill employee. Fingers crushed. In turning a 6-inch cant for the gang-saw, he dropped same on his fingers.

December 13th. Lumber-mill employee. Loss of index finger of right hand. Sawyer was cleaning away with stick a piece of wood which had become wedged between saw and guide. Stick caught saw, drawing hand to saw. This accident would have been prevented if injured had complied with foreman's instructions. No obstructions in connection with any machinery to be removed while same is in motion.

December 14th. Lumber-mill employee. Finger and thumb cut. Examining board coming through machine. Put hand too close to knives on cylinder.

December 16th. Smelter employee. Fracture of left radius and right femur. Injured man and a helper were painting the roof-braces of bullion-room. They placed a plank in the V formed by one of the knee-braces. When they got on the plank it tipped sideways. Injured man fell about 12 feet.

December 17th. Oil Company employee. Face and hands badly burned. Caused by one of the oil-burners back-firing.

December 21st. Ship-building employee. Two ribs and collar-bone fractured. Injured was taking out the turns in a coil of rope when he stepped back over the edge of the platform, falling about 15 feet.

December 26th. Lumber-mill employee. Fracture of jaw. While doing millwright-work a plank he was standing on broke, and he fell about 12 feet.

December 26th. Cannery Company employee. Crushed ring-finger of left hand. Injured was helping the foreman lift biscuit-can body folding die from the press to the floor. In some way die slipped just as they had it nearly on the floor, crushing the end of his finger.

December 26th. Lumber-mill employee. Employed as mill-cleaner. Was sweeping sawdust from beam when he fell.

Serious Accident of Employee, Sawmill Paper Company.

Injuries received were: Laceration inside of right knee, involving internal condyle of fernum; stump of little finger of right hand lacerated, requiring amputation; scalp-wound, back of head.

The accident was due to some one driving a spike in log. They were in the act of sawing a spruce boom-stick and ran into a drift-bolt. The saw broke in the bridge and came out on the carriage straight for the set-works, where injured stood. He tried to get behind the set-works, but tripped and fell out on to the runway and was then injured. The drift-bolt had been hammered into the log clear out of sight, and it was impossible to see it was there until the saw hit it.

I have received a number of complaints from millmen regarding drift-bolts and spikes being driven into merchantable timber. While making an inspection of mill in the Interior, the managing director of the company produced eight railroad-spikes, minus heads, which were driven into a boom of logs. This caused a loss to the company of about $1,200 for saws. Fortunately, no one was injured.

I would suggest that this matter be taken up with the proper authorities, as this practice should be discontinued.

SUPPLEMENTARY

REPORT OF THE CHIEF INSPECTOR OF MACHINERY.

NEW WESTMINSTER, B.C., January 2nd, 1918.

The Honourable the Minister of Public Works,
Victoria, B.C.

SIR,—In accordance with the provisions of the "Boilers Inspection Act," I have the honour to submit to you the following tabulated reports of the work of the Inspectors for the months of January, February, and March, 1917, to be added to the twelve months' work previously reported on, ending December 31st, 1916, in order to make our inspection years coincide with the fiscal years.

I have, etc.,
JOHN PECK,
Chief Inspector.

TOTAL SUMMARY FOR ALL DISTRICTS.

ENGINEERS' EXAMINATIONS.

Number of applications for examinations (in addition to 114, balance on hand December 31st, 1916)	221
Number of applications for re-examination	13
Number of applications approved	147
Examination fees	$742.50

RESULTS OF EXAMINATIONS.

Class.	No. examined.	Passed.	Failed.
Second	9	5	4
Third	43	27	16
Fourth	66	44	22
Temporary	30	30	...
Special logging-donkey	27	17	10
Special logging-locomotive	3	3	...
Special heating	4	4	...
Special Doukhobor	9	9	...
Totals	191	139	52

SUMMARY OF TOTAL WORK DONE BY DISTRICT INSPECTORS FOR THE MONTHS OF JANUARY, FEBRUARY, AND MARCH, 1917.

Number of drawings and specifications calculated for new boilers	46
„ boiler-plates inspected	81
„ boiler-plates rejected	2
„ boilers built under inspection in British Columbia	12
„ boilers built under inspection in Eastern Canada	2
„ boilers built in Eastern Canada not under inspection	2
„ new boilers inspected built in United States	9
„ new boilers inspected built in British Columbia	6
„ new boilers inspected (total)	18
„ boilers imported from Eastern Canada (second-hand)	1
„ boilers imported from United States (second-hand)	3
„ boilers unclassified	4

Summary of Total Work done by District Inspectors—*Concluded*

Number of first inspections	27
„ inspections, external and internal	430
„ external inspections only	20
„ special inspections after repairs	17
„ visits in addition to inspections	292
„ boilers subjected to hydrostatic test	425
„ boilers on which pressure was reduced	13
„ boilers unsafe without extensive repairs	14
„ boilers repaired under Inspector's directions	22
„ boilers considered unfit for further use	2
„ accidents to engines and boilers	7
„ investigations	5
„ inspections completed	436
Total horse-power of boilers inspected	28,862
Number of defects observed as per summary	403
Number of defects considered dangerous	43
Inspection fees earned	$4,847.14
Inspection fees collected	$4,678.91
Miles travelled by the Inspector	10,532
Letters inward	1,307
Letters outward	1,675
Telegrams inward	11
Telegrams outward	8
Boilers taken out of service	11

Summary of Total Defects observed.

Nature of Defects.	Number.	Dangerous.
Boilers without safety-valves	1	1
Boilers with safety-valves overloaded	1	..
Boilers with safety-valves defective in construction	5	1
Boilers without pressure-gauges	1	1
Pressure-gauges inoperative	5	3
Pressure-gauges defective	45	2
Cases of broken rivets	1	..
Cases of defective riveting	4	4
Cases of broken stays or braces	8	2
Cases of loose stays or braces	1	..
Defective settings	19	3
Boilers with fractured plates	3	..
Boilers with laminated plates	1	1
Boilers with burned plates	3	1
Boilers with blistered plates	4	..
Cases of sediment on fire-sheets	27	1
Cases of internal corrosion	18	..
Cases of scale or encrustation	38	5
Cases of external corrosion	29	..
Cases of defective tubes	20	2
Cases of defective feed-water arrangement	4	..
Cases of broken feed-valves	1	..
Serious leakage around tube-ends	25	4
Serious leakage in rivet-joints	3	..
Defective blow-off pipes or cocks	29	4
Defective water-gauges	1	1
Broken blow-off pipes or cocks	4	1
Water-columns without blow-outs	1	1

SUMMARY OF TOTAL DEFECTS OBSERVED—*Concluded.*

Nature of Defects.	Number.	Dangerous.
Cases of broken test-cocks	31	..
Connections to water-columns without valves	1	1
Boilers without fusible plugs	4	1
Boilers low at front end	12	..
Cases of serious leakage of fittings	9	1
Defects in engines	2	1
Boilers without stop-valves	1	..
Cases of defective steam-pipes	2	1
Unclassified defects	39	..
Totals	403	43

JOHN PECK,
Chief Inspector of Steam-boilers.

Inspector's Report, District A.

SUMMARY OF WORK DONE FOR THE MONTHS OF JANUARY, FEBRUARY, AND MARCH, 1917.

Number of boiler-plates inspected	12
„ boilers built in Eastern Canada not under inspection	1
„ new boilers inspected built in British Columbia	1
„ new boilers inspected (total)	1
„ first inspections	2
„ inspections, external and internal	46
„ external inspections only	1
„ special inspections after repairs	3
„ visits in addition to inspections	24
„ boilers subjected to hydrostatic test	46
„ boilers on which pressure was reduced	1
„ boilers unsafe without extensive repairs	1
„ boilers repaired under Inspector's directions	1
„ accidents to engines and boilers	5
„ investigations	3
„ inspections completed	47
Total horse-power of boilers inspected	2,454
Number of defects observed as per summary	32
Number of defects considered dangerous	8
Inspection fees earned	$436.20
Inspection fees collected	$353.90
Miles travelled by the Inspector	1,104
Letters inward	64
Letters outward	75
Boilers taken out of service	4

SUMMARY OF DEFECTS OBSERVED.

Nature of Defects.	Number.	Dangerous.
Boilers with safety-valves defective in construction	2	..
Pressure-gauges defective	3	..
Defective settings	1	..

Summary of Defects observed—*Concluded.*

Nature of Defects.	Number.	Dangerous.
Boilers with fractured plates	1	..
Boilers with burned plates	2	..
Cases of sediment on fire-sheets	2	..
Cases of internal corrosion	1	..
Cases of scale or encrustation	5	5
Cases of external corrosion	2	..
Cases of defective tubes	1	1
Serious leakage around tube-ends	1	1
Defective blow-off pipes or cocks	1	..
Defective water-gauges	1	1
Broken blow-off pipes or cocks	3	..
Cases of broken test-cocks	4	..
Unclassified defects	2	..
Totals	32	8

John D. Kay,
Inspector of Steam-boilers, District A.

Inspector's Report, District A.

Summary of Work done for the Months of January, February, and March, 1917.

Number of inspections, external and internal	44
„ external inspections only	1
„ visits in addition to inspections	24
„ boilers subjected to hydrostatic test	42
„ boilers on which pressure was reduced	3
„ boilers unsafe without extensive repairs	1
„ boilers considered unfit for further use	1
„ inspections completed	43
Total horse-power of boilers inspected	3,914
Number of defects observed as per summary	69
Number of defects considered dangerous	9
Inspection fees earned	$572.75
Inspection fees collected	$365.35
Miles travelled by the Inspector	1,254
Letters inward	84
Letters outward	90
Boilers taken out of service	1

Summary of Defects observed.

Nature of Defects.	Number.	Dangerous.
Pressure-gauges defective	7	..
Cases of defective riveting	4	4
Defective settings	3	..
Cases of sediment on fire-sheets	4	..
Cases of internal corrosion	1	..
Cases of external corrosion	5	..
Cases of defective tubes	3	1

SUMMARY OF DEFECTS OBSERVED—*Concluded.*

Nature of Defects.	Number.	Dangerous.
Cases of defective feed-water arrangement	2	..
Serious leakage around tube-ends	2	1
Defective blow-off pipes or cocks	18	2
Boilers low at front end	2	..
Defects in engines	2	1
Cases of defective steam-pipes	1	..
Unclassified defects	15	..
Totals	69	9

G. C. MCGOWN,
Inspector of Steam-boilers, District A.

Inspector's Reports, Districts A and E.

SUMMARY OF WORK DONE FOR THE MONTHS OF JANUARY, FEBRUARY, AND MARCH, 1917.

Number of drawings and specifications calculated for new boilers	11
„ boiler-plates inspected	16
„ boilers built under inspection in British Columbia	2
„ boilers imported from Eastern Canada (second-hand)	1
„ boilers imported from United States (second-hand)	1
„ boilers unclassified	1
„ first inspections	3
„ inspections, external and internal	13
„ external inspections only	1
„ boilers subjected to hydrostatic test	12
„ inspections completed	14
Total horse-power of boilers inspected	905
Number of defects observed as per summary	20
Inspection fees earned	$176.70
Inspection fees collected	$ 27.70
Miles travelled by the Inspector	1,252
Letters inward	10
Letters outward	28

SUMMARY OF DEFECTS OBSERVED.

Nature of Defects.	Number.	Dangerous.
Boilers with safety-valves defective in construction	2	..
Pressure-gauge defective	1	..
Boilers with blistered plates	3	..
Cases of sediment on fire-sheets	1	..
Cases of scale or encrustation	9	..
Cases of external corrosion	2	..
Cases of defective feed-water arrangement	1	..
Defective blow-off pipes or cocks	1	..
Total	20	..

A. S. BENNETT,
Inspector of Steam-boilers, Districts A and E.

SUMMARY OF TOTAL WORK DONE IN DISTRICTS A AND E.

RESULTS OF EXAMINATIONS.

Class.	No. examined.	Passed.	Failed.
Second	1	1	..
Third	19	13	6
Fourth	29	20	9
Temporary	12	12	..
Special logging-donkey	12	10	2
Special logging-locomotive	1	1	..
Special heating	1	1	..
Totals	75	58	17

SUMMARY OF TOTAL WORK DONE.

Number of drawings and specifications calculated for new boilers	46
„ boiler-plates inspected	38
„ boilers built under inspection in British Columbia	2
„ boilers built in Eastern Canada not under inspection	1
„ new boilers inspected built in British Columbia	1
„ new boilers inspected (total)	1
„ boilers imported from Eastern Canada (second-hand)	1
„ boilers imported from United States (second-hand)	1
„ boilers unclassified	1
„ first inspections	5
„ inspections, external and internal	103
„ external inspections only	3
„ special inspections after repairs	3
„ visits in addition to inspections	48
„ boilers subjected to hydrostatic test	100
„ boilers on which pressure was reduced	4
„ boilers unsafe without extensive repairs	2
„ boilers repaired under Inspector's directions	1
„ boilers considered unfit for further use	1
„ accidents to engines and boilers	5
„ investigations	3
„ inspections completed	104
Total horse-power of boilers inspected	7,273
Number of defects observed as per summary	121
Number of defects considered dangerous	17
Inspection fees earned	$1,185.65
Inspection fees collected	$746.05
Miles travelled by the Inspector	3,610
Letters inward	158
Letters outward	193
Boilers taken out of service	5

SUMMARY OF DEFECTS OBSERVED.

Nature of Defects.	Number.	Dangerous.
Boilers with safety-valves defective in construction	4	..
Pressure-gauges defective	11	..
Cases of defective riveting	4	4
Defective settings	4	..
Boilers with fractured plates	1	..
Boilers with burned plates	2	..

SUMMARY OF DEFECTS OBSERVED—*Concluded.*

Nature of Defects.	Number.	Dangerous.
Boilers with blistered plates	3	..
Cases of sediment on fire-sheets	7	..
Cases of internal corrosion	2	..
Cases of scale or encrustation	14	5
Cases of external corrosion	9	..
Cases of defective tubes	4	2
Cases of defective feed-water arrangement	3	..
Serious leakage around tube-ends	3	2
Defective blow-off pipes or cocks	20	2
Defective water-gauges	1	1
Broken blow-off pipes or cocks	3	..
Cases of broken test-cocks	4	..
Boilers low at front end	2	..
Defects in engines	2	1
Cases of defective steam-pipes	1	..
Unclassified defects	17	..
Totals	121	17

J. DOWNIE,
J. D. KAY,
G. C. MCGOWN,
A. S. BENNETT,
Inspectors of Steam-boilers, Districts A and E.

Senior Inspector's Report, District B.

SUMMARY OF WORK DONE FOR THE MONTHS OF JANUARY, FEBRUARY, AND MARCH, 1917.

Number of boilers built under inspection in British Columbia	1
„ boilers built under inspection in Eastern Canada	2
„ new boilers inspected built in British Columbia	2
„ new boilers inspected (total)	4
„ first inspections	4
„ inspections, external and internal	31
„ special inspections after repairs	3
„ visits in addition to inspections	59
„ boilers subjected to hydrostatic test	30
„ boilers on which pressure was reduced	1
„ boilers unsafe without extensive repairs	3
„ boilers repaired under Inspector's directions	5
„ accidents to engines and boilers	1
„ investigations	2
„ inspections completed	31
Total horse-power of boilers inspected	1,772
Number of defects observed as per summary	18
Number of defects considered dangerous	2
Inspection fees earned	$300.40
Inspection fees collected	$188.90
Miles travelled by the Inspector	488
Letters inward	432
Letters outward	691

Summary of Work done—*Concluded.*

Telegrams inward	7
Telegrams outward	4
Boilers taken out of service	6

Summary of Defects observed.

Nature of Defects.	Number.	Dangerous.
Pressure-gauges defective	3	..
Defective settings	1	..
Boilers with fractured plates	1	..
Cases of external corrosion	1	..
Cases of defective tubes	2	..
Cases of broken feed-valves	1	..
Serious leakage around tube-ends	3	1
Cases of broken test-cocks	3	..
Cases of serious leakage of fittings	1	..
Cases of defective steam-pipes	1	1
Unclassified defects	1	..
Totals	18	2

S. Baxter,
Inspector of Steam-boilers, District B.

Inspector's Report, District B.

Summary of Work done for the Months of January, February, and March, 1917.

Number of inspections, external and internal	74
„ special inspections after repairs	3
„ visits in addition to inspections	24
„ boilers subjected to hydrostatic test	64
„ boilers on which pressure was reduced	2
„ boilers repaired under Inspector's directions	8
„ inspections completed	74
Total horse-power of boilers inspected	3,788
Number of defects observed as per summary	47
Number of defects considered dangerous	9
Inspection fees earned	$589.00
Inspection fees collected	$659.05
Miles travelled by the Inspector	1,588

Summary of Defects observed.

Nature of Defects.	Number.	Dangerous.
Pressure-gauges inoperative	3	3
Pressure-gauges defective	11	..
Cases of broken rivets	1	..
Cases of broken stays or braces	6	2
Defective settings	4	2
Cases of internal corrosion	7	..
Cases of scale or encrustation	2	..
Cases of external corrosion	4	..

SUMMARY OF DEFECTS OBSERVED—*Concluded.*

Nature of Defects.	Number.	Dangerous.
Cases of defective tubes	4	..
Serious leakage around tube-ends	2	1
Defective blow-off pipes or cocks	2	1
Unclassified defects	1	..
Totals	47	9

L. DUCKETT,
Inspector of Steam-boilers, District B.

Inspector's Report, District B.

SUMMARY OF WORK DONE FOR THE MONTHS OF JANUARY, FEBRUARY, AND MARCH, 1917.

Number of boilers built in Eastern Canada not under inspection	1
" new boilers inspected built in Scotland	5
" new boilers inspected (total)	6
" first inspections	6
" inspections, external and internal	41
" external inspections only	1
" special inspections after repairs	1
" visits in addition to inspections	4
" boilers subjected to hydrostatic test	36
" boilers on which pressure was reduced	1
" boilers unsafe without extensive repairs	4
" inspections completed	35
Total horse-power of boilers inspected	3,745
Number of defects observed as per summary	37
Inspection fees earned	$728.40
Inspection fees collected	$713.35
Miles travelled by the Inspector	2,355

SUMMARY OF DEFECTS OBSERVED.

Nature of Defects.	Number.	Dangerous.
Boilers with safety-valves overloaded	1	..
Pressure-gauges defective	8	..
Cases of broken stays or braces	2	..
Defective settings	1	..
Boilers with blistered plates	1	..
Cases of sediment on fire-sheets	1	..
Cases of internal corrosion	3	..
Cases of scale or encrustation	2	..
Cases of external corrosion	5	..
Cases of defective tubes	2	..
Serious leakage around tube-ends	4	..
Cases of broken test-cocks	6	..
Boilers without fusible plugs	1	..
Total	37	..

JOHN CLARK,
Inspector of Steam-boilers, District B.

SUMMARY OF TOTAL WORK DONE IN DISTRICT B.

Results of Examinations.

Class.	No. examined.	Passed.	Failed.
Second	1	...	1
Third	9	5	4
Fourth	6	4	2
Temporary	10	10	...
Special logging-donkey	2	2	...
Special heating	2	2	...
Totals	30	23	7

Summary of Work done.

Number of boilers built under inspection in British Columbia	1
„ boilers built under inspection of Eastern Canada	2
„ boilers built in Eastern Canada not under inspection	1
„ new boilers inspected built in United States	5
„ new boilers inspected built in British Columbia	2
„ new boilers inspected (total)	10
„ first inspections	10
„ inspections, external and internal	146
„ external inspections only	1
„ special inspections after repairs	7
„ visits in addition to inspections	87
„ boilers subjected to hydrostatic test	130
„ boilers on which pressure was reduced	4
„ boilers unsafe without extensive repairs	7
„ boilers repaired under Inspector's directions	13
„ accidents to engines and boilers	1
„ investigations	2
„ inspections completed	140
Total horse-power of boilers inspected	9,305
Number of defects observed as per summary	102
Number of defects considered dangerous	11
Inspection fees earned	$1,617.80
Inspection fees collected	$1,561.30
Miles travelled by the Inspector	4,431
Letters inward	432
Letters outward	691
Telegrams inward	7
Telegrams outward	4
Boilers taken out of service	6

Summary of Defects observed.

Nature of Defects.	Number.	Dangerous.
Boilers with safety-valves overloaded	1	..
Pressure-gauges inoperative	3	3
Pressure-gauges defective	22	..
Cases of broken rivets	1	..
Cases of broken stays or braces	8	2
Defective settings	6	2
Boilers with fractured plates	1	..
Boilers with blistered plates	1	..
Cases of sediment on fire-sheets	1	..
Cases of internal corrosion	10	..

SUMMARY OF DEFECTS OBSERVED—*Concluded.*

Nature of Defects.	Number.	Dangerous.
Cases of scale or encrustation	4	..
Cases of external corrosion	10	..
Cases of defective tubes	8	..
Cases of broken feed-valves	1	..
Serious leakage around tube-ends	9	2
Defective blow-off pipes or cocks	2	1
Cases of broken test-cocks	9	..
Boilers without fusible plugs	1	..
Cases of serious leakage of fittings	1	..
Cases of defective steam-pipes	1	..
Unclassified defects	2	..
Totals	102	10

S. BAXTER,
L. DUCKITT,
JOHN CLARK,
Inspectors of Steam-boilers, District B.

Inspector's Report, District C.

RESULTS OF EXAMINATIONS.

Class.	No. examined.	Passed.	Failed.
Fourth	2	2	..
Special Doukhobor	9	9	..
Totals	11	11	..

SUMMARY OF WORK DONE FOR THE MONTHS OF JANUARY, FEBRUARY, AND MARCH, 1917.

Number of inspections, external and internal	37
„ special inspections after repairs	1
„ visits in addition to inspections	18
„ boilers subjected to hydrostatic test	36
„ boilers unsafe without extensive repairs	1
„ boilers repaired under Inspector's directions	4
„ accidents to engines and boilers	1
„ inspections completed	37
Total horse-power of boilers inspected	3,718
Number of defects observed as per summary	62
Number of defects considered dangerous	2
Inspection fees earned	$486.19
Inspection fees collected	$411.56
Miles travelled by the Inspector	676
Letters inward	56
Letters outward	81
Telegrams inward	4
Telegrams outward	4

Summary of Defects observed.

Nature of Defects.	Number.	Dangerous.
Pressure-gauges defective	10	..
Defective settings	7	..
Boilers with burned plates	1	1
Cases of sediment on fire-sheets	6	..
Cases of scale or encrustation	8	..
Cases of external corrosion	5	..
Cases of defective tubes	6	..
Serious leakage around tube-ends	2	..
Defective blow-off pipes or cocks	1	..
Broken blow-off pipes or cocks	1	1
Cases of broken test-cocks	8	..
Boilers low at front end	7	..
Totals	62	2

A. Sutherland,
Inspector of Steam-boilers, District C.

Inspector's Report, District D.

Summary of Work done for the Months of January, February, and March, 1917.

Number of boiler-plates inspected	4
„ boilers built under inspection in British Columbia	1
„ new boilers inspected built in United States	2
„ new boilers inspected built in British Columbia	1
„ new boilers inspected (total)	3
„ boilers unclassified	2
„ first inspections	5
„ inspections, external and internal	67
„ external inspections only	4
„ special inspections after repairs	6
„ visits in addition to inspections	65
„ boilers subjected to hydrostatic test	60
„ boilers on which pressure was reduced	3
„ boilers unsafe without extensive repairs	4
„ boilers repaired under Inspector's directions	3
„ boilers considered unfit for further use	1
„ inspections completed	61
Total horse-power of boilers inspected	2,310
Number of defects observed as per summary	45
Number of defects considered dangerous	6
Inspection fees earned	$516.15
Inspection fees collected	$802.45
Miles travelled by the Inspector	750

Summary of Defects observed.

Nature of Defects.	Number.	Dangerous.
Boilers with safety-valves defective in construction	1	1
Pressure-gauges defective	1	1
Defective settings	1	1
Boilers with laminated plates	1	1
Cases of sediment on fire-sheets	10	1
Cases of internal corrosion	3	..

SUMMARY OF DEFECTS OBSERVED—*Concluded.*

Nature of Defects.	Number.	Dangerous.
Cases of scale or encrustation	5	..
Cases of defective tubes	4	..
Serious leakage around tube-ends	5	..
Serious leakage in rivet-joints	1	..
Defective blow-off pipes or cocks	1	..
Boilers without fusible plugs	2	..
Boilers low at front end	3	..
Cases of serious leakage of fittings	7	1
Totals	45	6

P. A. GOEPEL,
Inspector of Steam-boilers, District D.

Inspector's Report, District D.

SUMMARY OF WORK DONE FOR THE MONTHS OF JANUARY, FEBRUARY, AND MARCH, 1917.

Number of new boilers inspected built in United Kingdom	2
„ new boilers inspected (total)	2
„ boilers imported from United States (second-hand)	2
„ first inspections	4
„ inspections, external and internal	50
„ external inspections only	2
„ visits in addition to inspections	25
„ boilers subjected to hydrostatic test	56
„ boilers repaired under Inspector's directions	1
„ inspections completed	56
Total horse-power of boilers inspected	4,528
Number of defects observed as per summary	5
Inspection fees earned	$710.35
Inspection fees collected	$815.10
Miles travelled by the Inspector	820

SUMMARY OF DEFECTS OBSERVED.

Nature of Defects.	Number.	Dangerous.
Pressure-gauges inoperative	2	..
Cases of loose stays or braces	1	..
Cases of defective tubes	1	..
Serious leakage in rivet-joints	1	..
Total	5	..

F. BATH,
Inspector of Steam-boilers, District D.

Inspector's Report, District D.

Summary of Work done for the Months of January, February, and March, 1917.

Number of boiler-plates inspected	39
„ boiler-plates rejected	1
„ boilers built under inspection in British Columbia	9
„ new boilers inspected in British Columbia	2
„ new boilers inspected (total)	2
„ boilers unclassified	1
„ first inspections	3
„ inspections, external and internal	27
„ external inspections only	10
„ visits in addition to inspections	49
„ boilers subjected to hydrostatic test	43
„ boilers on which pressure was reduced	2
„ inspections completed	38
Total horse-power of boilers inspected	1,728
Number of defects observed as per summary	68
Number of defects considered dangerous	7
Inspection fees earned	$331.00
Inspection fees collected	$342.45
Miles travelled by the Inspector	245

Summary of Defects observed.

Nature of Defects.	Number.	Dangerous.
Boilers without safety-valves	1	1
Boilers without pressure-gauges	1	1
Pressure-gauges defective	1	1
Defective settings	1	..
Boilers with fractured plates	1	..
Cases of sediment on fire-sheets	3	..
Cases of internal corrosion	3	..
Cases of scale or encrustation	7	..
Cases of external corrosion	1	..
Cases of defective tubes	1	..
Cases of defective feed-water arrangement	1	..
Serious leakage around tube-ends	6	..
Serious leakage in rivet-joints	1	..
Defective blow-offs pipes or cocks	5	1
Water-columns without blow-outs	1	1
Cases of broken test-cocks	10	..
Connections to water-columns without valves	1	1
Boilers without fusible plugs	1	1
Cases of serious leakage of fittings	1	..
Boilers without stop-valves	1	..
Unclassified defects	20	..
Totals	68	7

E. Biggam,
Inspector of Steam-boilers, District D.

SUMMARY OF TOTAL WORK DONE IN DISTRICT D.

RESULTS OF EXAMINATIONS.

Class.	No. examined.	Passed.	Failed.
Second	7	4	3
Third	15	9	6
Fourth	29	18	11
Temporary	8	8	..
Special logging-donkey	13	5	8
Special logging-locomotive	2	2	..
Special heating	1	1	..
Totals	75	47	28

SUMMARY OF WORK DONE.

Number of boiler-plates inspected	43
„ boiler-plates rejected	2
„ boilers built under inspection in British Columbia	9
„ new boilers inspected built in United States	4
„ new boilers inspected built in British Columbia	3
„ new boilers inspected (total)	7
„ boilers imported from United States (second-hand)	2
„ boilers unclassified	3
„ first inspections	12
„ inspections, external and internal	144
„ external inspections only	16
„ special inspections after repairs	6
„ visits in addition to inspections	139
„ boilers subjected to hydrostatic test	159
„ boilers on which pressure was reduced	5
„ boilers unsafe without extensive repairs	4
„ boilers repaired under Inspector's directions	4
„ boilers considered unfit for further use	1
„ inspections completed	155
Total horse-power of boilers inspected	8,566
Number of defects observed as per summary	118
Number of defects considered dangerous	13
Inspection fees earned	$1,557.50
Inspection fees collected	$1,960.00
Miles travelled by the Inspector	1,815
Letters outward	661
Telegrams inward	710

SUMMARY OF DEFECTS OBSERVED.

Nature of Defects.	Number.	Dangerous.
Boilers without safety-valves	1	1
Boilers with safety-valves defective in construction	1	1
Boilers without pressure-gauges	1	1
Pressure-gauges inoperative	2	..
Pressure-gauges defective	2	2
Cases of loose stays or braces	1	..
Defective settings	2	1
Boilers with fractured plates	1	..
Boilers with laminated plates	1	1
Cases of sediment on fire-sheets	13	1
Cases of internal corrosion	6	..

Summary of Defects observed—*Concluded.*

Nature of Defects.	Number.	Dangerous.
Cases of scale or encrustation	12	..
Cases of external corrosion	5	..
Cases of defective tubes	2	..
Cases of defective feed-water arrangement	1	..
Serious leakage around tube-ends	11	..
Serious leakage in rivet-joints	3	..
Defective blow-off pipes or cocks	6	1
Water-columns without blow-outs	1	1
Cases of broken test-cocks	10	..
Connections to water-columns without valves	1	1
Boilers without fusible plugs	3	1
Boilers low at front end	3	..
Cases of serious leakage of fittings	8	1
Boilers without stop-valves	1	..
Unclassified defects	20	..
Totals	118	13

G. O. Madigan,
P. A. Goepel,
F. Bath,
F. Biggam,
Inspectors of Steam-boilers, District D.

VICTORIA, B.C.:
Printed by William H. Cullin, Printer to the King's Most Excellent Majesty.
1918.

BRITISH COLUMBIA

PUBLIC ACCOUNTS

FOR THE

FISCAL YEAR ENDED 31ST MARCH, 1917

PERIOD FROM 1ST APRIL, 1916, TO 31ST MARCH, 1917

THE GOVERNMENT OF
THE PROVINCE OF BRITISH COLUMBIA

PRINTED BY
AUTHORITY OF THE LEGISLATIVE ASSEMBLY.

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

To His Honour FRANK STILLMAN BARNARD,

Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to present the Public Accounts of British Columbia for the fiscal year ended 31st March, 1917.

All of which is respectfully submitted.

JOHN HART,

Minister of Finance.

Treasury Department,

Victoria, 24th November, 1917.

VICTORIA, B.C.,

24th November, 1917.

The Honourable John Hart,

Minister of Finance.

SIR,—I have the honour to submit herewith the Public Accounts of the Province of British Columbia for the fiscal year ended 31st March, 1917.

I have the honour to be,

Sir,

Your obedient servant,

A. N. MOUAT, C.A.,

Comptroller-General.

PUBLIC ACCOUNTS

FOR THE

FISCAL YEAR ENDED THE 31st MARCH, 1917.

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GOVERNMENT OF THE

BALANCE SHEET FOR THE

CAPITAL ASSETS.

REALIZABLE OR INCOME PRODUCING:

DOMINION OF CANADA:

Capital Account, "Terms of Union"—			
Interest, capitalized at 5 per cent	$ 583,021 40		
Annual subsidy, " 5 "	3,600,000 00		
Grant *per capita*, " 5 "	6,279,680 00		
Lands conveyed, " 5 "	2,000,000 00		
		$12,462,701 40	
INVESTMENT FOR REDEMPTION OF BRITISH COLUMBIA STOCK AND DEBENTURES:			
Sinking Fund, Loan 1887	$ 399,170 94		
" Loans 1891-3-5-9 and 1902	2,557,707 42		
" Loan 1914	145,737 54		
" Loan 1915	255,130 71		
" B.C. Dyking Debentures	71,388 76		
		3,429,135 37	
DYKING DISTRICTS ("DYKING ASSESSMENTS ADJUSTMENT ACT, 1905"):			
Capital Account	$ 544,464 99		
Maintenance Account	104,092 83		
Interest Account	18,283 15		
	$ 666,840 97		
Less Sinking Fund assessments	84,877 76		
		581,963 21	
FORMER INDIAN RESERVATIONS ACQUIRED:			
Kitsilano Reserve, Vancouver	$ 300,000 00		
Songhees Reserve, Victoria	925,652 72		
		1,225,652 72	
RAILWAY SUBSIDY LANDS REPURCHASED		1,509,114 73	
FAIRVIEW WORKS, FAIRVIEW		29,447 26	
LIVE STOCK AT COLONY FARM, ESSONDALE, B.C.		68,465 00	
			$19,306,479 69

BUILDINGS, ROADS, BRIDGES, AND OTHER PROPERTIES:

PROVINCIAL BUILDINGS AND FURNISHINGS	$10,629,203 82	
TRUNK AND MAIN ROADS	4,130,254 48	
BRIDGES (INCLUDING NEW WESTMINSTER BRIDGE)	4,775,968 13	
WHARVES (INCLUDING PRINCE RUPERT WHARF)	261,349 74	
ROAD MACHINERY	333,691 00	
PRINTING PLANT AND EQUIPMENT	96,797 10	
FISH-HATCHERY, SETON LAKE, LILLOOET, B.C.	28,700 00	
		20,255,964 27
Carried forward		$39,562,443 96

PROVINCE OF BRITISH COLUMBIA.

YEAR ENDED 31ST MARCH, 1917.

CAPITAL LIABILITIES.

BRITISH COLUMBIA STOCK AND DEBENTURES:

LOAN ACT, 1887, 4½	PER CENT.,	DUE 30TH	JUNE,	1917	$ 381,210 00	
" 1891, 3	"	"		1941	2,139,141 00	
" 1893, 3	"	"		1941	599,945 00	
" 1895, 3	"	"		1941	2,037,000 00	
" 1899, 3	"	"		1941	1,649,000 00	
" 1902, 3	"	"		1941	3,496,850 00	
" 1914, 4½	"	1ST APRIL,		1941	7,275,000 00	
" 1915, 4½	"	1ST DEC.,		1925	3,130,000 00	
" 1916, 4½	"	30TH JUNE,		1926	2,000,000 00	
DYKING DEBENTURES, 1897 AND 1899, 3½	PER CENT.,	DUE 30TH	JUNE,	1937	445,000 00	$23,153,146 00

MORTGAGE ON BRITISH COLUMBIA BUILDING, LONDON:

MATURING IN QUARTERLY INSTALMENTS TO 24TH JUNE, 1945	274,025 00	
		$23,427,171 00

BALANCE:

BEING EXCESS OF CAPITAL ASSETS OVER CAPITAL LIABILITIES	16,135,272 96

NOTE.—In addition to the above liabilities, the Province has guaranteed the principal and interest on securities as follows:—

	Authorized.	Issued.
Canadian Northern Pacific Railway Company (due 2nd April, 1950)	$47,975,000 00	$40,157,524 00
Pacific Great Eastern Railway Company (due 15th July, 1942)	20,160,000 00	20,160,000 00
Nakusp & Slocan Railway Company (due 1st July, 1918)	647,072 00	647,072 00
Vancouver and Districts Joint Sewerage and Drainage Board (due 1st March, 1954)	5,000,000 00	2,433,333 00
French's Complex Ore Reduction Co., Ltd. (due 1st June, 1919)	40,000 00	40,000 00
Agricultural Credit Commission (due 1st May, 1941)	1,000,000 00	1,000,000 00
	$74,822,072 00	$64,437,929 00

Carried forward $39,562,443 96

BALANCE SHEET FOR THE YEAR

CURRENT ASSETS.

Brought forward			$39,562,443 96
CASH AND ADVANCES:			
CASH BALANCES IN HANDS OF GOVERNMENT AGENTS AND COLLECTORS		$ 442,274 07	
ADVANCES TO DEPARTMENTS		429,475 75	
ADVANCES TO SCHOOL TRUSTEES OF RURAL DISTRICTS		50,643 38	
			$ 922,393 20
ACCOUNTS RECEIVABLE:			
LOANS UNDER THE "DAIRY ASSOCIATIONS ACT"		$ 4,500 00	
LOANS UNDER THE "AGRICULTURAL ASSOCIATIONS ACT"	$190,400 00		
Less SINKING FUNDS	8,176 19		
		182,223 81	
BRITISH COLUMBIA LOAN TRUSTEES		160,457 94	
STUMPING-POWDER ACCOUNTS		14,094 31	
GRAND TRUNK PACIFIC RY. CO. (IMPROVEMENTS AT PRINCE RUPERT)		135,800 67	
DOMINION GOVERNMENT, ACCRUED INTEREST, TERMS OF UNION		7,287 76	
VARIOUS MINES (ROYALTIES AND TAXES ON COAL AND COKE)		51,007 49	
			555,371 98
LIVE STOCK, STORES, AND EQUIPMENT:			
PUBLIC INSTITUTIONS		76,325 29	
GAOLS		2,664 00	
PRISON FARMS		16,880 59	
DEPARTMENT OF AGRICULTURE		27,874 08	
DEPARTMENT OF LANDS		100,703 93	
PROVINCIAL POLICE		59,006 24	
BOILER AND MACHINERY INSPECTION		7,900 25	
			291,354 38
SPECIAL DEPOSITS, TRUST ACCOUNTS:			
BANK OF MONTREAL, LAND REGISTRY ASSURANCE FUND		$ 69,014 72	
BANK OF BRITISH NORTH AMERICA, VANCOUVER AND DISTRICTS JOINT SEWERAGE AND DRAINAGE ACCOUNT		272,104 26	
CANADIAN BANK OF COMMERCE:			
Canadian Northern Pacific Railway Branch Lines Account		860,652 31	
Canadian Northern Pacific Railway Terminals Account		4,036,998 43	
Pacific Great Eastern Railway		260,638 41	
Workmen's Compensation Board		253,664 77	
French's Complex Ore Reduction Co., Ltd		819 53	
Lands Branch Trust Account		368,998 30	
Forest Branch Trust Account		57,790 75	
Dominion Government Grant *re* Agriculture		19,521 41	
WATER RIGHTS BRANCH TRUST ACCOUNT:			
Canadian Bank of Commerce	$ 45,495 86		
Cash on hand	136 59		
		45,632 45	
ESTATES OF INSANE PERSONS:			
Canadian Bank of Commerce	$ 31,953 05		
Cash on hand	356 94		
		32,309 99	
			6,278,145 33
			$ 8,047,264 89
BALANCE:			
BEING EXCESS OF CURRENT LIABILITIES OVER CURRENT ASSETS			1,428,581 56
			$ 9,475,846 45
Carried forward			$49,038,290 41

ENDED 31ST MARCH, 1917—*Continued.*

CURRENT LIABILITIES.

Brought forward		$39,562,443 96
TEMPORARY LOANS:		
LOAN ACT, 1916 (TREASURY BILL ISSUE), 4½ PER CENT. DUE 30TH JUNE, 1917	$ 500,000 00	
CANADIAN BANK OF COMMERCE, VICTORIA, CURRENT ACCOUNT	594,689 17	
CANADIAN BANK OF COMMERCE, VICTORIA, SPECIAL OVERDRAFT ACCOUNT	1,000,000 00	
		$ 2,094,689 17
ACCOUNTS PAYABLE:		
SUNDRY CREDITORS	$ 2,299 71	
INTEREST ACCRUED ON PUBLIC DEBT	315,734 39	
		318,034 10
REVENUE RECEIVED IN ADVANCE:		
DOMINION GOVERNMENT, TERMS OF UNION		173,496 00
SPECIAL FUNDS, TRUST ACCOUNTS:		
VANCOUVER AND DISTRICTS JOINT SEWERAGE AND DRAINAGE BOARD.	$ 272,104 26	
CANADIAN NORTHERN PACIFIC RAILWAY CO. BRANCH LINES ACCOUNT	860,652 31	
CANADIAN NORTHERN PACIFIC RAILWAY CO. TERMINALS ACCOUNT	4,036,998 43	
PACIFIC GREAT EASTERN RAILWAY CO	260,638 41	
WORKMEN'S COMPENSATION BOARD	253,664 77	
FRENCH'S COMPLEX ORE REDUCTION CO., LTD	819 53	
LANDS BRANCH TRUST ACCOUNT	368,998 30	
FOREST BRANCH TRUST ACCOUNT	57,790 75	
WATER RIGHTS BRANCH TRUST ACCOUNT	45,632 45	
DOMINION GOVERNMENT GRANT *re* AGRICULTURE	19,521 41	
ESTATES OF INSANE PERSONS	32,309 99	
FOREST PROTECTION FUND	4,986 76	
"PLANS CANCELLATION ACT"	518 00	
"LAND CLAUSES CONSOLIDATION ACT"	922 50	
WELLINGTON COLLIERIES RAILWAY CO	15,000 00	
INTESTATE ESTATES	346,811 04	
SUITORS' FUNDS	239,783 16	
SURPLUS MONEYS FROM TAX SALES	11,323 08	
OFFICIAL GUARDIAN	46,466 53	
RURAL DISTRICTS SCHOOL TAX	14,685 50	
		6,889,627 18
		9,475,846 45
Carried forward		$49,038,290 41

BALANCE SHEET FOR THE YEAR

DEFERRED ASSETS.

Brought forward		$49,038,290 41
NAKUSP & SLOCAN RAILWAY CO. (Amount paid for interest on bonds, etc., in excess of Dominion Subsidy and net earnings)	$ 297,374 80	
PACIFIC GREAT EASTERN RAILWAY CO. (Interest on Guaranteed Bonds)	1,053,826 27	
PACIFIC GREAT EASTERN RAILWAY CO. (Loan Account)	1,319,366 86	
BANK OF VANCOUVER (In Liquidation) (Amount in special Deposit Account)	100,086 37	
		2,770,654 30
		$51,808,944 71

ENDED 31ST MARCH, 1917—*Concluded.*

DEFERRED LIABILITIES.

Brought forward	$49,038,290 41

BALANCE:

BEING BOOK VALUES OF "DEFERRED ASSETS," THE ULTIMATE REALIZATION OF WHICH CANNOT BE DETERMINED AT THIS DATE	2,770,654 30
	$51,808,944 71

I CERTIFY THAT the foregoing Balance Sheet is in agreement with the books of the Treasury Department as at 31st March, 1917, but there are still outstanding those discrepancies between the Personal and General Ledgers referred to by the Auditor-General in the Public Accounts for the fiscal year ended 31st March, 1916, as follows:—

Intestate Estates	$1,114 03
Suitors' Funds	2,078 11
Surplus moneys from Tax Sales	114 54
Rural Districts School Tax	936 55

A. N. MOUAT, C.A.,
Comptroller-General.

Victoria, B.C.,
24th November, 1917.

PROVINCE OF BRITISH COLUMBIA.

———:o:———

CONSOLIDATED SURPLUS ACCOUNT.

DR.			CR.		
1916 April 1st	To Balance	$14,782,616 65	1917 March 31st	By Adjustment for Interest due, Sec. 2, "Terms of Union"	$ 7,287 76
				Dominion Government, "Terms of Union"	11,879,680 00
				Indian Reservations acquired	1,225,652 72
	Amounts written off by Order in Council—			Railway Subsidy Lands repurchased	1,509,114 73
	Defalcation of F. E. Morgan, Prince Rupert Agency	2,661 95		Buildings, Roads, Bridges, and other properties	20,255,964 27
	do E. C. Ocker, Fernie Agency	469 07		Live Stock, Colony Farm, Essondale	68,465 00
	Balance of advance to R. F. Lawrence	419 00		Inventories	291,354 38
	do C. J. Gillingham	56 21		Revenue for fiscal year ended 31st March, 1917	6,906,783 63
	Surcharged vouchers, Golden Agency	215 46			
	do Ashcroft Agency	6,480 00			
	do Cranbrook Agency	109 00			
	Advances to Rural School Districts	1,500 98			
	Land Registry Assurance Fund:				
	Compensation to Daniel Rowe	258 00			
	Amounts written off on Report of the Select Committee of the Legislative Assembly on Public Accounts—				
	Advance to farmers for seed in 1895	15,525 33			
	Loan to Abbotsford Creamery Association	400 00			
	Defalcation of T. H. McKay, late Collector, Vancouver	835 85			
	Amount written off under authority of Sec. 2, Chap. 6, 1912—				
	Dewdney Municipality	12,836 20			
1917 March 31st	Mortgage on London Building	274,025 00			
	Adjustment for interest accrued to 31st March	315,734 39			
	Adjustment for fixed revenues received in advance	173,496 00			
	Expenditure for fiscal year ended 31st March, 1917	9,079,317 70			
		$24,666,956 79			
	Balance: being excess of Assets over Liabilities	17,477,345 70			
		$42,144,302 49			$42,144,302 49

TABLE No. 3.

COMPARATIVE STATEMENT OF THE RECEIPTS AND EXPENDITURE OF THE PROVINCE OF BRITISH COLUMBIA,

FROM 1st JULY, 1902, TO 31st MARCH, 1917.

NOTE.—For statement of Receipts and Expenditure from 1st July, 1886, to 30th June, 1902, see *Table No. 3* in Public Accounts, 1902, discontinued.

REVENUE.	1902-1903 1st July to 30th June.	1903-1904 1st July to 30th June.	1904-1905 1st July to 30th June.	1905-1906 1st July to 30th June.	1906-1907 1st July to 30th June.	1907-1908 1st July to 30th June.	1908-1909 1st July to 31st March (9 Months).	1909-1910 1st April to 31st March.	1910-1911 1st April to 31st March.	1911-1912 1st April to 31st March.	1912-1913 1st April to 31st March.	1913-1914 1st April to 31st March.	1914-1915 1st April to 31st March.	1915-1916 1st April to 31st March.	1916-1917 1st April to 31st March.
Dominion of Canada:—															
Annual payment of Interest	$ 29,151 06	$ 29,151 06	$ 29,151 06	$ 29,151 06	$ 29,151 66	$ 29,151 06	$ 29,151 06	$ 29,151 06	$ 29,151 06	$ 29,151 06	$ 29,151 06	$ 29,151 06	$ 29,151 06	$ 29,151 06	$ 29,151 06
Do. Subsidy	35,000 00	35,000 00	35,000 00	35,000 00	35,000 00	35,000 00	35,000 00	150,000 00	150,000 00	180,000 00	180,000 00	180,000 00	180,000 00	180,000 00	180,000 00
Do. Grant per capita	144,033 60	142,925 60	142,925 60	142,925 60	142,925 60	142,925 60	142,925 60	142,925 60	142,925 60	223,338 40	313,384 00	313,384 00	313,384 00	313,384 00	313,384 00
Do. for Lands conveyed	100,000 00	100,000 00	100,000 00	100,000 00	100,000 00	100,000 00	100,000 00	100,000 00	100,000 00	100,000 00	100,000 00	100,000 00	100,000 00	100,000 00	100,000 00
Do. special grant "B. N. A. Act, 1907"															
Land Sales	64,884 00	118,276 80	141,510 80	180,931 20	665,035 51	548,936 00	228,994 64	2,618,188 73	2,431,231 26	1,805,256 71	2,344,590 35	1,172,353 72	749,098 31	119,772 48	216,453 47
Land Revenue	70,014 15	59,574 60	129,412 55	120,019 50	177,789 10	134,842 66	120,067 50	177,778 11	321,576 98	333,895 21	301,184 95	218,525 92	157,469 53	81,117 53	79,919 10
Survey Fees	1,169 85	1,251 00	1,092 00	1,185 30	2,689 62	1,865 20	2,387 91	15,871 85	18,692 97	17,344 59	22,053 48	20,162 33	17,144 72	5,496 33	10,100 56
Water Revenue										45,049 24	49,384 03	61,569 54	27,597 11	59,908 13	33,971 75
Rents, exclusive of Land	195 00	145 00	28 50	81 00		102 50	96 50	109 00	220 00	350 00	210 25	206 00	75 00	65 00	17,737 43
Timber Leases	84,111 55	116,582 30	76,228 17	100,449 87	95,219 90	74,045 65	59,085 50	87,855 20	100,857 75	83,066 01	84,576 39	114,545 38	79,962 43	126,479 01	76,960 11
Timber Royalty	214,196 50	283,066 75	410,288 20	560,042 41	1,155,316 14	2,258,506 67	1,848,254 93	2,274,066 21	2,357,951 32	2,300,262 28	2,457,129 37	2,444,179 06	1,785,119 64	1,477,378 26	1,759,469 16
Timber Sales													47,469 45	71,375 84	85,357 26
Free Miners' Certificates	67,487 88	59,854 75	55,504 01	54,228 82	54,241 56	53,256 27	18,739 42	53,695 67	68,857 86	68,101 21	62,983 70	59,881 25	66,651 75	47,920 89	48,875 25
Mining Receipts, General	148,722 34	108,270 55	105,192 21	116,865 20	117,778 12	96,538 15	79,965 64	91,255 75	106,410 55	93,461 74	94,754 35	92,010 35	62,960 35	59,577 85	62,315 61
Licences, Trade and Liquor (*see note*)	57,868 63	61,691 73	53,893 06	51,872 60	51,568 95	53,101 70	35,460 80	58,954 49	92,498 00	79,545 36	86,207 60	102,617 96	90,629 11	75,924 98	67,386 87
Licences, Game				2,735 00	3,765 00	4,320 00	7,920 00	7,250 00	7,815 00	7,995 00	6,175 00	107,154 50	90,948 25	71,382 00	66,097 50
Licences, Commercial Travellers				21,650 00	23,855 00	200 00	200 00	200 00	200 00						
Fines and Fees of Court	12,611 87	13,354 45	13,224 95	14,494 70	15,922 38	17,188 47	16,960 29	30,734 60	46,203 69	48,215 15	63,858 47	64,955 56	41,033 46	20,117 15	21,968 12
Probate Fees	8,747 90	10,932 32	10,013 53	10,676 75	12,550 00	8,705 20	15,211 28	19,465 86	37,291 41	30,111 23	43,743 52	44,810 23	40,250 77	64,505 49	72,093 47
Succession Duty	12,287 74	29,025 38	31,975 08	50,398 84	59,450 76	77,518 97	108,405 29	200,459 88	192,743 93	193,923 90	249,272 23	162,277 69	159,907 23	177,702 73	
Law Stamps	11,604 00	11,946 65	12,997 00	15,171 00	14,903 57	20,068 55	16,741 10	24,560 50	30,992 30	43,347 15	73,569 33	100,626 56	101,963 90	81,178 41	65,949 02
Registry Fees	75,041 66	89,057 95	93,092 24	152,120 71	210,384 74	229,689 04	195,707 82	408,826 15	613,892 22	592,398 75	712,258 43	652,431 48	443,727 07	241,548 50	196,663 90
Registration of Companies										173,401 70	141,957 55	96,470 65	64,814 90	37,940 66	44,863 50
Sale of Government Property	1,631 65	2,333 50	1,542 93	1,198 00	1,684 74	1,276 28	476 45	2,058 57	7,820 82	3,439 20	4,892 89	5,741 42	4,682 14	2,254 10	4,156 54
Marriage Licences	1,787 00	1,960 00	1,910 00	2,080 00	2,320 00	2,135 00	1,865 00	2,160 00	2,360 00	2,480 00	2,855 00	2,485 00	1,920 00	1,670 00	1,520 00
Revenue Tax	142,787 00	148,787 00	157,821 00	179,731 00	190,888 00	207,782 00	155,753 00	290,832 00	310,338 00	387,497 00	360,663 00	3,558 00	00 00		
Real Property Tax	205,402 08	287,497 88	286,226 16	301,765 23	293,547 21	293,151 32	49,187 94	333,744 26	352,372 44	298,076 26	459,570 40	501,051 11	515,143 26	492,813 64	532,106 85
Personal Property Tax	93,792 57	175,485 19	183,604 80	134,587 96	139,227 87	99,234 47	103,602 98	179,602 50	179,602 50	257,267 55	197,769 44	211,388 37	260,432 96	278,335 78	291,412 83
Wild Land Tax (including Coal and Timber Lands)	71,340 54	112,266 55	101,097 29	101,918 62	117,809 06	109,974 40	37,312 97	72,994 71	396,100 83	428,574 87	546,087 70	659,424 11	646,441 93	554,459 99	521,325 26
Income Tax	78,855 38	76,102 79	74,055 22	81,615 25	152,299 30	85,981 37	15,981 97	109,984 16	109,984 16	240,731 03	280,302 88	346,452 03	428,708 25	329,287 80	296,801 75
Mineral Tax	78,377 50	68,844 09	114,256 67	161,061 93	151,513 84	112,667 14	84,967 16	167,689 93	91,028 45	100,659 20	155,103 36	153,880 73	163,335 81	163,335 81	287,257 59
Royalty and Tax on Coal	107,290 74	114,256 67	141,510 40	167,387 42	161,518 50	143,223 94	222,726 91	278,382 86	195,987 78	192,223 35	164,257 93	173,261 75	194,536 62		
Revenue Service Refunds	4,264 99	1,629 93	1,282 87	874 45	1,573 55	1,120 34	1,216 50	1,755 25	1,463 72	3,564 74	2,396 70	3,184 93	977 10	563 31	632 63
Tax Sale Deeds	10 00	20 00	5,380 00	1,440 00	650 00	200 00	610 00	510 00	590 00	420 00	1,220 00	2,350 00	730 00	170 00	170 00
Tax on unworked Crown-granted Mineral Claims		28,696 55	28,989 80	28,790 65	31,495 35	36,991 80	22,525 05	39,869 65	42,020 84	43,426 00	42,733 45	40,953 83	40,296 71	35,703 23	37,903 97
Commission and Fees on Sales for Taxes	7,579 20	1,087 72	103 20	21 20	180 00	93 20	20 00								
Printing Office	27,466 84	29,016 10	21,879 69	28,166 01	26,443 70	27,693 68	23,034 11	45,104 14	127,776 49	115,111 43	87,102 70	54,916 87	41,243 22	25,000 85	39,000 50
Registered Taxes (all denominations)	169 00	148 00	148 00	166 18	95 70	27,693 68	244 72	28 91	206 91	47 59	46 36	32 95	8 62		
Bureau of Mines	625 20	831 35	1,709 50	788 70	860 05	960 45	507 50	687 00	917 00	662 50	883 00	1,977 51	929 79	884 25	570 50
Hospital for the Insane	11,237 75	15,703 62	14,179 53	19,957 81	21,622 78	22,943 78	24,064 67	26,274 87	27,991 09	35,641 08	42,875 63	39,428 88	32,740 69		
Provincial Home	1,698 31	1,771 72	1,887 37	1,692 45	2,042 35	1,477 07	3,895 33	308 30	5,332 62	4,101 87	2,628 31	4,846 60	4,900 27		
Reimbursements for keep of prisoners	3,478 31	3,264 20	2,186 55	2,332 10	1,620 80	1,295 33	355 65	1,286 20	706 45	1,445 66	5,017 16	18,542 30	15,317 50	13,479 50	11,333 95
Chinese Restriction Act and Amending Acts (Dominion Statutes)	86,287 50	278,950 00	195,100 00	345,000 00	356,200 00	304,500 00	253,700 00	1,096,000 00	1,422,600 00	1,770,351 93	1,729,200 00	1,723,200 00	1,731,600 00	1,731,600 00	1,731,600 00
Traffic Tolls, New Westminster Bridge			16,140 25	22,161 75	25,252 95	25,661 50	20,901 75	23,817 81	21,500 00	23,000 00	22,500 00	26,000 00	26,000 00	26,394 99	
Interest	256 65	7,855 94	18,896 69	17,025 11	33,011 68	59,064 38	82,461 84	157,498 13	248,772 10	229,820 00	276,525 56	91,967 47	190,172 12	159,680 54	75,893 66
Indian Assessment Act, 1905 (Tax on land against capital charge)				14,705 31	14,705 07	19,060 07	19,060 07	19,060 07	19,060 07	19,060 07	19,060 07	19,060 07	19,060 07	19,060 07	19,060 07
Boiler Inspection Fees							19,614 62	20,927 01	26,454 46	28,829 81	31,288 81	26,857 31	24,337 05	28,369 36	
Log-scaling Fees				13,069 65	19,320 15	13,010 59	21,498 75	27,518 61	27,230 61	25,210 93	18,575 60	29,821 59	29,439 38	40,397 85	
Fishery and Cannery Licences						23,052 50	31,340 00	32,677 79	26,888 67	32,170 00	39,702 18	34,648 92	33,335 00	38,563 50	
Licences, Taxes, and Fees under "Fire Insurance Act"										36,609 08	45,861 73	75,728 52	81,680 01	76,581 17	
Licences and Fees, under "Motor Traffic Regulation Act"											98,530 76	110,446 43	94,892 30	134,361 50	
Fees under "Moving Pictures Act"												18,429 86	17,715 50	18,429 86	
Miscellaneous Receipts	26,646 32	23,048 90	28,706 33	78,895 54	39,196 60	37,447 53	41,340 89	45,632 70	62,751 48	90,735 38	290,457 71	155,404 66	95,588 43	98,161 37	136,826 69
	2,609,412 05	2,887,867 48	2,874,554 76	3,200,080 30	4,338,462 32	5,031,377 16	4,658,562 35	8,818,366 28	10,470,968 42	10,677,762 71	12,430,027 72	10,398,381 10	7,871,376 10	6,193,560 60	6,709,958 50
Interest on Investment of Sinking Funds	35,218 30	40,295 80	45,598 95	51,542 13	57,440 31	47,682 00	25,983 64	56,145 66	61,923 80	67,046 11	74,187 36	80,877 64	103,121 36	98,133 00	106,823 23
Unclaimed Money Deposits (reverted to the Province, Act 1905)					48,511 18										
NET REVENUE	2,644,630 35	2,928,163 28	2,920,153 71	3,251,622 43	4,444,413 81	5,079,059 16	4,684,546 99	8,874,511 94	10,532,892 22	10,745,808 82	12,504,215 08	10,479,258 74	7,974,496 46	6,291,693 60	6,816,781 73
Loan Act, 1902 (£721,000)	3,496,850 00														
Loan Act, 1903		1,000,000 00											7,275,000 00	3,130,000 00	
Loan Act, 1914 (£1,500,000)															2,000,000 00
Loan Act, 1915															1,000,000 00
Loan Act, 1916															
Treasury Bills												1,503,500 00	2,700,000 00		
Deposits on account of Intestate Estates (receipts)	65,991 11	68 2 14 45	78,181 21	71,961 74	105,602 83	199,963 73	131,302 66	106,346 20	223,749 42	100,504 01	246,455 24	276,808 32	146,784 13	165,716 72	173,608 51
Do " Suitors' Fund "	49,901 31	29,132 84	29,996 11	36,824 12	97,196 32	87,142 52	42,807 20	90,502 23	276,567 84	389,165 22	290,035 56	389,666 40	146,478 01	235,104 72	93,310 40
Do " Tax Sales surplus "		1,877 90	995 50	6,582 24	6,040 41	4,045 91	6,594 79	4,935 50	46,045 38	14,218 19	7,061 74				
Do " Official Guardian "										35,654 16	28,272 21	31,073 49	31,087 88		
Do " Rural Districts School Tax "												126,715 36	134,255 75		
Shuswap & Okanagan Railway receipts (Act, 1890)	19,571 02	21,896 37	24,021 10	28,909 34	32,796 39	26,991 24	27,202 40	44,536 45	50,395 55	61,767 28	401,111 81				
Nakusp & Slocan Railway receipts (Act, 1894)	6,076 37	9,499 66	6,901 18	9,783 90	7,582 14	6,745 80	4,375 52	5,101 92	5,769 81	8,826 84	9,024 35	9,353 12	4,908 16	3,362 06	5,282 80
Victoria and Sidney Railway (Act, 1892)												25,000 00			

EXPENDITURE.	1902-1903 1st July to 30th June.	1903-1904 1st July to 30th June.	1904-1905 1st July to 30th June.	1905-1906 1st July to 30th June.	1906-1907 1st July to 30th June.	1907-1908 1st July to 30th June.	1908-1909 1st July to 31st March (9 Months).	1909-1910 1st April to 31st March.	1910-1911 1st April to 31st March.	1911-1912 1st April to 31st March.	1912-1913 1st April to 31st March.	1913-1914 1st April to 31st March.	1914-1915 1st April to 31st March.	1915-1916 1st April to 31st March.	1916-1917 1st April to 31st March.
I.—Public Debt:—															
Interest	$ 396,127 82	$ 346,083 54	$ 395,623 93	$ 411,758 93	$ 466,408 93	$ 364,876 19	$ 182,091 26	$ 335,213 43	$ 333,112 58	$ 352,037 52	$ 331,335 53	$ 330,587 53	$494,075 03	$779,262 53	$827,774 30
" Sinking Funds (chargeable to Investment acc't.) as follows:—															
Trustees' account, "Loan Act, 1877"	9,253 80	9,253 80	9,253 80	9,253 80	9,253 80	4,626 90									
Do Interest invested, "	12,019 99	12,773 40	13,548 15	14,357 05	15,164 20										
Do " Loan Act, 1887	8,577 22	8,577 22	8,577 22	8,577 22	8,577 22	8,577 22	4,288 61	8,577 22	8,577 22	8,577 22	8,577 22	8,577 22	8,577 22	8,577 22	4,288 61
Do Interest invested, "	5,241 78	5,762 78	6,305 57	6,880 17	7,488 58	5,859 58	4,167 30	5,847 54	6,598 08	10,606 14	10,606 14	11,333 73	12,193 65	12,193 65	6,169 99
Do "Loan Acts, 1891, '93, '95, '99 & 1902"	99,219 36	99,219 36	99,219 36	99,219 36	99,219 36	99,219 36	49,609 68	99,219 36	99,219 36	99,219 36	99,219 36	99,219 36	99,219 36	99,219 36	41,096 59
Do Interest invested, "	17,870 73	21,806 42	26,005 03	30,424 95	34,967 72	29,791 72	24,771 34	47,387 92	52,935 77	57,389 97	63,490 99	69,058 74	75,619 92	82,141 55	145,500 00
Sinking Fund, "Loan Act, 1914"															237 54
Do Interest invested "Loan Act, 1914"															254,715 00
Do "Loan Act, 1915"															415 71
Do Interest invested, "Loan Act, 1915"															
† Do "Dyking Assessments Adjustment Act, 1905"							13,428 88	13,442 20	13,449 00	16,176 08					
Premium and Exchange	8 00	2,980 00	3,009 28	3,571 79	7,069 26	2,031 67	1,102 24	2,627 18	2,068 82	2,587 61	2,925 15	1,446 65	3,489 94	388 00	94 57
Discount and Commission	373,215 10	5,620 40	5,603 88	5,711 44	5,457 89	4,918 76	2,428 92	5,689 64	5,444 01	5,819 24	5,884 54	5,530 41	231,566 58	428,570 01	107,155 52
Incidental Expenses of negotiating Loan	3,042 47												8,668 28		
† Redemption of Debentures (Loan Act, 1897)	10,000 00	10,000 00	10,000 00	10,000 00	10,000 00	10,000 00		4,000 00	4,000 00	4,000 00	4,000 00	4,000 00			
† Redemption of Debentures (Loan Act, 1903)			100,000 00	100,000 00	100,000 00	70,000 00									
† Redemption of $60,000 Dyking Debentures (purchased before maturity @ 91)							54,947 61								
† Do $71,000 " 93								66,030 00							
† Do 55,000 " 95									52,750 00						
† Do 50,000 " 95															
													28,500 00		
II.—Civil Government (Salaries)	265,450 62	290,562 28	250,568 89	239,624 75	282,922 70	318,817 65	264,273 87	289,750 87	349,676 44	875,999 73	857,092 24	1,329,707 20	1,596,731 31	1,555,562 26	1,477,611 45
III.—Administration of Justice (Salaries)	119,519 96	124,378 35	145,455 40	118,782 32	130,290 40	131,255 95	106,233 50	141,785 84	161,986 47	28,874 65	43,489 89	57,848 26	63,392 50	62,600 54	59,201 52
IV.—Legislation	14,455 95	79,719 50	45,683 97	47,565 05	89,747 70	67,157 75	68,075 08	114,286 80	71,580 87	74,171 95	132,008 89	87,499 87	86,328 99	96,877 54	206,281 02
V.—Public Institutions (Maintenance):—															
Printing Office	49,688 57	49,960 21	59,287 45	41,291 35	73,745 97	86,673 49	56,542 52	90,015 58	190,815 65	95,666 52	83,032 30	96,723 43	59,592 99	51,350 65	52,000 31
Hospital for the Insane	63,443 58	67,786 88	74,267 89	84,000 68	93,667 75	106,519 17	95,372 67	120,666 69	151,264 75	169,951 64	357,710 13	404,435 40	277,241 84	280,207 24	286,455 30
Museum	3,747 63	3,614 99	3,288 50	3,766 20	3,559 85	3,889 00	3,747 82	4,329 52	3,721 58	3,721 58	7,557 38	9,188 16	6,093 71	3,987 09	5,372 70
Provincial Home	12,343 67	13,169 74	12,574 35	12,474 16	13,756 11	14,389 91	11,124 47	13,995 13	15,221 68	14,129 84	15,980 93	17,022 47	18,375 86	18,586 63	21,187 31
Bureau of Mines	3,670 96	2,811 96	4,091 75	1,988 78	2,440 12	2,526 88	4,304 45	4,421 65	3,261 35	3,223 20	7,887 62	8,166 07	4,949 84	10,160 68	
Mines Rescue-stations													6,736 31	8,642 94	2,704 78
Fisheries (hatcheries and administration)			12,219 96	14,991 85	12,025 56	12,829 14	16,518 54	21,578 03	17,508 86	17,699 57	20,668 63	30,579 41	23,366 28	23,736 33	4,936 32
Industrial School for Boys															17,559 80
Industrial School for Girls													13,196 92	4,696 87	12,445 55
VI.—Hospitals and Charities	82,950 31	123,875 01	96,466 83	107,371 10	125,620 61	163,047 57	178,379 49	209,442 14	304,697 01	360,994 92	393,369 21	430,784 07	513,563 71	355,440 67	486,590 67
VII.—Administration of Justice (other than Salaries)	101,692 91	103,787 43	108,188 87	116,405 53	114,060 89	152,840 75	143,305 70	213,386 61	229,239 20	272,808 06	451,205 69	747,112 40	404,082 58	249,392 20	188,961 79
VIII.—Education	397,645 46	447,358 43	453,141 17	478,067 97	469,686 37	466,083 63	373,769 42	587,935 91	689,111 7	789,295 47	944,037 71	1,141,079 43	1,310,200 12	1,325,308 24	1,331,413 43
IX.—Transport	27,226 95	28,641 60	27,748 92	29,091 62	27,878 97	40,053 65	27,023 40	50,104 43	54,251 00	91,912 29	84,428 50	111,039 83	57,785 22	38,850 86	32,374 38
X.—Department of Agriculture															124,099 25
XI.—Revenue Service	50,329 52	21,185 36	22,691 96	24,918 17	58,130 54	52,431 45	54,243 00	97,268 80	57,067 68	56,349 25	94,566 55	23,256 26	20,369 79	18,555 04	18,196 09
XII.—Public Works':—															
Works and Buildings	232,240 11	142,291 10	104,129 99	72,088 37	242,399 54	469,942 44	529,900 59	811,163 79	1,060,245 74	1,818,402 95	2,845,648 50	3,004,626 72	1,572,893 99	383,571 18	429,083 94
Parliament Buildings			2,400 00												
Government House, Victoria	3,648 06	3,817 78	3,029 76	3,125 77	9,065 80	5,944 12	10,448 64	22,106 83	18,548 74						
Roads, Streets, Bridges and Wharves	2,060,629 26	1,966,012 92	2,286,410 76	3,068,394 66	3,567,722 72	3,866,179 50	1,115,508 88	2,012,103 42	3,032,606 50	2,966,792 92	4,790,461 24	3,329,386 35	2,357,524 11	2,063,203 39	1,939,961 99
Surveys	17,144 04	5,191 34	6,653 48	6,658 56	29,047 10	73,389 96	190,118 32	508,463 66	425,267 00						
New Westminster Bridge	201,501 86	479,245 36	45,593 46												
Irrigation								2,000 00							
Ferries															
Subsidies to Steamboats															
Subsidies to Steamboats, Ferries, and Bridges															
Miscellaneous															
XIII.—Miscellaneous	161,522 20	181,915 70	180,168 50	179,567 91	188,967 74	275,910 69	210,697 45	254,455 36	881,795 42	2,283,926 46	2,902,566 85	2,448,880 93	2,656,163 37	2,000,892 63	1,005,264 50
XIV.—Department of Lands															286,237 06
	3,356,440 93	3,060,257 47	3,575,374 17	2,620,147 66	3,147,766 46	4,541,630 34	3,932,204 01	6,616,035 51	8,556,773 8	11,208,746 64	15,626,805 06	15,595,123 65	12,153,109 65	10,083,504 47	9,531,740 35
* Less amount of Sinking Funds as above, chargeable to Investm't acc't.	137,308 68	157,143 26	182,957 73	180,021 53	185,216 63	168,927 58	96,013 01	163,942 24	186,577 44	179,742 49	181,983 94	188,211 07	210,442 65	202,842 10	452,422 65
	3,498,183 25	3,817,594 60	3,442,416 44	2,800,169 19	3,332,983 09	4,372,703 76	3,836,191 05	6,453,093 27	8,370,196 4	11,029,003 15	15,444,822 12	15,406,912 48	11,942,667 00	9,880,662 37	9,079,317 70
† Less Redemption of Debentures as above, chargeable against Loans	10,000 00	10,000 00	110,000 00	110,000 00	110,000 00	80,000 00	54,947 61	4,000 00	56,750 00	4,000 00	32,500 00	4,000 00			
NET EXPENDITURE	3,488,183 25	3,807,594 60	3,332,416 44	2,690,169 19	3,222,983 09	4,292,703 76	3,781,243 44	6,449,093 27	8,313,446 4	11,025,003 15	15,412,322 12	15,402,912 48	11,942,667 00	9,880,662 37	9,079,317 70
Deposits on account of Intestate Estates (repaid)	28,278 19	68,242 78	61,683 26	69,209 91	78,208 25	83,703 50	129,146 24	147,886 11	130,466 77	140,467 43	236,678 22	245,417 76	106,564 88	170,712 33	
Do " Suitors' Fund "	38,289 40	23,572 25	19,708 14	26,766 18	39,105 81	87,642 42	46,385 40	89,701 80	136,001 18	185,051 81	265,115 63	264,348 49	231,475 16	208,285 31	90,888 93
Do " Tax Sales surplus "		449 26	705 64	448 74	1,104 13	5,472 08	5,666 66	7,113 49	1,681 65	15,387 62	37,171 00	17,593 92	7,146 30	4,041 32	89 25
Do " Official Guardian "										1,000 00	30,193 96	24,894 85	22,791 52	22,711 15	40,667 96
Do " Rural Districts School Tax "														123,214 13	128,319 01
Suitors' Fund Deposits " "				4,681 66											
Shuswap & Okanagan Railway payments (Act, 1890)	50,476 34	50,189 15	51,378 71	50,095 08	51,200 38	50,190 15	20,113 80	50,225 30	52,158 94	49,630 39	25,088 70				
Nakusp & Slocan Railway payments (Act, 1894)	26,498 18	26,716 63	26,765 66	26,244 14	26,499 62	26,242 63	13,131 26	26,275 16	26,269 35	26,276 13	26,282 70	26,137 46	26,050 20	26,047 83	25,855 98
Victoria & Sidney Railway payments (Act, 1892)	6,000 00	6,000 00	6,000 00	6,000 00	6,000 00	6,000 00	6,000 00	6,000 00	6,000 00	6,000 00	6,000 00				
Pacific Great Eastern Railway (interest on bonds)															
Do (loan)															316,016 80
Redemption of Treasury Bills															1,310,366 86
															500,000 00

Certified,

A. N. MOUAT, C.A.,
Comptroller-General.

NOTE.—In Expenditure for 1902-1903, Discount and Commission include $279,748 for discount on Loan of £721,000, also Commissions, Stamp Duty, etc., on same, $88,886.40.
Under the head of "Licences, Trade and Liquor," were also included Game Licences up to the year 1905.
Expenditure on *Bridges*, separate account from year ending 31st March, 1912.
Expenditure on *Surveys*, included under "Miscellaneous Expenditure" from year ending 31st March, 1912.
Expenditure on *Government House*, included under "Works and Buildings" from year ending 31st March, 1912.

W. J. GOEPEL,
Deputy Minister of Finance.

STATEMENT

SHOWING DETAILS OF AMOUNT BROUGHT TO ACCOUNT IN THE REVENUE RETURN UNDER THE HEAD OF "MISCELLANEOUS RECEIPTS." (*See* PAGE 13.)

	Amount.
Agricultural Department, sundry fees and refunds	$ 782 76
Balance of account, Agricultural Department, *re* publicity work in U.S.A., 1912	612 07
Balance of General Hospital Account, Stewart	12 52
Copies of documents and filing same	4,236 85
Conscience money	10 00
Cattle-brands	1,230 73
Certificate fees	62 75
Cheques issued but not presented for payment	1,768 47
Difference in sterling exchange	11,063 78
Dispensation from advertising water applications, etc	52 97
Education Department, sundry refunds	1,898 75
Exchange on cheques	267 69
Fees for teachers' examinations and certificates	1,725 35
Fees for coal-mine managers' and coal-miners' examinations and certificates	1,037 80
Fees and refunds from Horticultural Board	18,220 79
Fees for civil marriages	120 00
Fees from Stock-breeders' Association and receipts from sale of pure-bred stock	1,062 03
Forest Branch, refund of cost of cruising, scaling expenses, etc	6,797 06
Forfeited deposits, "Elections Act"	2,100 00
Hotel Inspection	30 00
Licence fees, "Hospital Act Amendment Act"	175 00
Lease fees	5,701 00
Miscellaneous refunds	220 94
Money confiscated in gambling-den	10 35
Notarial fees	1,910 00
Naturalization fees	381 98
Old bank balance, New Westminster, J. H. Sprott	11 00
Payment of Debenture No. 15 by Richmond Municipality	1,400 00
Private Bills fees	2,434 00
Pruning-school fees	214 95
Packing-school fees and sale of fruit and eggs	531 80
Permit fees, "Game Act"	316 00
Payment on account of improvements on pre-emptions	769 10
Refund of expenses incurred cutting noxious weeds	104 63
Refund of expenses, Returning Officer, Victoria	24 50
Refund of cost of administration of various estates by Official Guardian	2,539 05
Refund of cost of seed-grain supplied	3,025 00
Refund of burial expenses	141 73
Refund by contractors	140 28
Refund on vouchers overpaid	982 93
Refund of expenses incurred in connection with arrests	157 74
Refund for keep of prisoners	107 55
Refund of advances for maintenance	36 00
Refund of insurance premiums on cancelled policies	30 80
Refund of jury and witness fees	71 00
Refund on pure-bred stock supplied to Farmers' Institutes	445 85
Refund on spray material	2,225 77
Refund for cattle slaughtered for tuberculosis	405 00
Refund from Forest Protection Fund	23,266 33
Refund from assisted miners	22 50
Refund from resident physician, Salmon Arm	61 30
Sale of sundry articles	672 78
Sale of maps	366 63
Sale of text-books	1,229 82
Sale of vaccine	10 91
Sale of stock and produce, Colony Farm, Essondale	9,842 76
Sale of Acts	159 60
Sale of Voters' Lists	639 66
Statutory payment by E. & N. Railway Company in terms of paragraph 2 of the Schedule to chapter 33 of the B.C. Statutes, 1912, in respect of the unalienated land in the E. & N. Railway Belt	15,890 55
Surplus money	163 91
Searches	213 90
Sundry fees	60 15
Sealers' examination fees	275 91
Taxed costs	214 93
Unclaimed money	499 47
Wharfage and dock dues	5,629 26
Total	$136,826 69

INSCRIBED STOCK ISSUED.

—:o:—

RETURN showing the amount of INSCRIBED STOCK issued under the British Columbia Loan Acts.

[To 31st March, 1917.]

3 per cent.—Inscribed Stock, issued under "Loan Act, 1891" (Payable in 50 Years).

Terminable 30th June, 1941.	Issue for Money Loan.	Issue for redemption of Debentures of Loan, 1877.	Issue for redemption of Debentures of Loan, 1887.	Total Issue.	
Date of Issue.					
1st July, 1891..	£200,000=$970,000			£200,000 @ $4.85 =	$ 970,000.00
1st July, 1892..		£42,195=$204,645.75	£126,750=$614,737.50	168,945 "	819,383.25
1st Jan., 1893..		20,450= 99,182.50	12,720= 61,692.00	33,170 "	160,874.50
1st July, 1893..		980= 4,753.00		980 "	4,753.00
1st Jan., 1894..		2,100= 10,185.00	7,250= 35,162.50	9,350 "	45,347.50
1st Jan., 1895..		2,380= 11,543.00	9,375= 45,468.75	11,755 "	57,011.75
1st July, 1895..		1,540= 7,469.00	500= 2,425.00	2,040 "	9,894.00
1st July, 1896..		1,820= 8,827.00	2,000= 9,700.00	3,820 "	18,527.00
1st Jan., 1897..		6,250= 30,312.50	3,600= 17,460.00	9,850 "	47,772.50
1st July, 1897..			1,150= 5,577.50	1,150 "	5,577.50
				£441,060	$2,139,141.00

		$2,139,141 00

3 per cent.—Inscribed Stock issued under "Loan Act, 1893" (Payable in 48 Years), Terminable 30th June, 1941.

Date of Issue, 1st July, 1893..	Issue for Parliament Buildings Construction, £123,700 @ $4.85	599,945 00

3 per cent.—Inscribed Stock issued under "Loan Act, 1895" (Payable in 46 Years), Terminable 30th June, 1941.

Date of Issue, from 1st Jan., 1895..	£420,000 @ $4.85	2,037,000 00

3 per cent.—Inscribed Stock issued under "Loan Act, 1899" (Payable in 42 Years), Terminable 30th June, 1941.

Date of Issue, from 1st July, 1899..	£340,000 @ $4.85	1,649,000 00

3 per cent—Inscribed Stock issued under "Loan Act, 1902" (Payable in 39 Years), Terminable 30th June, 1941.

Date of Issue, from 1st July, 1902..	£721,000 @ $4.85	3,496,850 00

4 1/2 per cent.—Inscribed Stock issued under "Loan Act, 1914" (Payable in 27 Years), Terminable 1st April, 1941.

Date of Issue, from 1st April, 1914	£1,500,000 @ $4.85	$7,275,000 00
		17,196,936 00

DEBENTURES OUTSTANDING.

———:o:———

RETURN showing the amount of DEBENTURES outstanding, issued under the British Columbia Loan Acts.

[To 31ST MARCH, 1917.]

4 1/2 per cent.—Debentures issued under "Loan Act, 1887" (Payable in 30 years).

Terminable, 30th June, 1917.	Numbers.	Denomination.	Total amount issued.	*Deduct* Amount redeemed by conversion under authority of Act, 1891, for consolidating the Public Debt.	Outstanding subject to conversion.	Total Amount outstanding.
Date of Issue, 1st July, 1887.	1 to 200 201 to 1,254	200 @ £500 1,054 @ £100	£205,400 = $996,190	£126,800 = $614,980	£78,600 @ 4.85 =	$381,210 00

4 1/2 per cent.—Debentures issued under "Loan Act, 1915" (payable in 10 years).

Terminable 1st Dec., 1925.	Numbers.	Denomination.	Total amount issued.	Total amount outstanding.
Date of Issue, 1st Dec., 1915	1 to 500 501 to 3,380	$ 500 1,000	$3,130,000.00	$3,130,000.00

4 1/2 per cent.—Debentures issued under "Loan Act, 1916" (payable in 10 years).

Terminable 1st July, 1926.	Numbers.	Denomination.	Total amount issued.	Total amount outstanding.
Date of Issue, 1st July, 1916.....	D. 0001 to D. 2,000	$1,000	$2,000,000 00	$2,000,000 00

DYKING DEBENTURES OUTSTANDING.

———:o:———

RETURN showing the amount of DEBENTURES outstanding, issued under the Dyking Acts.

[To 31st March, 1917.]

3½ per cent.—Debentures issued under the "Dyking Debenture Act, 1897," the "Public Dyking Act, 1898," and the "Public Dyking Act (1898) Amendment Act, 1899."

Date of issue.	Date issued from Treasury.	Numbers.	Denomination.	When redeemable.	Total amount outstanding.
July 1st, 1897....	November 24th, 1897.	1 to 118	$1,000 00	40 years from 1st July, 1897.	$118,000 00
"	January 15th, 1898.	119 to 314	1,000 00	" "	196,000 00
"	February 3rd, 1898.	315 to 374 Act 1897.	1,000 00	" "	60,000 00
"	February 9th, 1898.	375 to 424	1,000 00	" "	50,000 00
"	May 16th, 1898.	425 to 471	1,000 00	" "	47,000 00
July 1st, 1899....	December 29th, 1899.	1 to 200—Acts 1898 and 1899.	1,000 00	38 years from 1st July, 1899.	200,000 00
					$671,000 00
	Less Debentures re	deemed in 1908, $100,000; do. 1909,		$71,000; do. 1911, $25,000. do. 1912, 30,000.	226,000 00
					$445,000 00

STATEMENT

SHOWING the amount of Debentures of the Loan of 1887 redeemed by conversion into 3 per cent. Inscribed Stock, by authority of the "Loan and Consolidation Act, 1891," and the "Inscribed Stock Act, 1891."

[To 31st March, 1917.]

DEBENTURES, "LOAN, 1887."

Date of Redemption.	4½ per cent. Debentures. Amount redeemed.		Rate paid for conversion.	3 per cent. Inscribed Stock issued therefor.		Date of Inscription.
From	£ sterling.	$ cts.	Per cent.	£ sterling.	$ cts.	From
1st July, 1892	97,500	472,875 00	130	126,750	614,737 50	1st July, 1892
1st January, 1893	4,400	21,340 00	130	5,720	27,742 00	1st January, 1893
1st January, 1893	5,600	27,160 00	125	7,000	33,950 00	1st January, 1893
1st January, 1894	5,800	28,130 00	125	7,250	35,162 50	1st January, 1894
1st January, 1895	7,500	36,375 00	125	9,375	45,468 75	1st January, 1895
1st July, 1895	400	1,940 00	125	500	2,425 00	1st July, 1895
1st July, 1896	1,600	7,760 00	125	2,000	9,700 00	1st July, 1896
1st January, 1897	3,000	14,550 00	120	3,600	17,460 00	1st January, 1897
1st July, 1897	1,000	4,850 00	115	1,150	5,577 50	1st July, 1897
	£126,800	$614,980 00		£163,345	$792,223 25	

LOAN ACT, 1887.—SINKING FUND.

DR. BRITISH COLUMBIA LOAN TRUSTEES, LONDON, IN ACCOUNT WITH THE PROVINCE OF BRITISH COLUMBIA. CR.

Date.	Remittances	Interest on Investments	Proceeds of Bonds sold and reinvested.	Proceeds of Bonds sold and paid into Revenue Account.	Total.
Oct. 11th, 1887	$ 8,730 00				$ 8,730 00
April 9th, 1888	8,730 00				8,730 00
June 30th, 1888		$ 138 75			138 75
Oct. 8th, 1888	8,730 00				8,730 00
May 8th, 1889	8,730 00				8,730 00
June 30th, 1889		763 08			763 08
Oct. 8th, 1889	8,730 00				8,730 00
June 27th, 1890	8,730 00				8,730 00
June 30th, 1890		1,350 65			1,350 65
Dec. 22nd, 1890	8,730 00				8,730 00
June 25th, 1891	8,730 00				8,730 00
June 30th, 1891		893 09			893 09
Nov. 14th, 1891		1,044 32			1,044 32
Dec. 23rd, 1891	8,730 00				8,730 00
June 23rd, 1892	8,730 00				8,730 00
June 30th, 1892		2,437 00			2,437 00
Dec. 31st, 1892	4,586 00				4,586 00
Mar. 31st, 1893		1,492 20			1,492 20
June 30th, 1893	4,161 00				4,161 00
Dec. 31st, 1893	4,160 99				4,160 99
June 30th, 1894	3,914 44				3,914 44
June 30th, 1894		3,225 90			3,225 90
June 30th, 1894		1,815 84			1,815 84
June 30th, 1894			$29,279 49 (£6,220 2s.10d. Ca. 3% In. St)		29,279 49
Dec. 31st, 1894	4,615 99				4,615 99
Feb. 28th, 1895		1,993 58			1,993 58
June 30th, 1895		2,064 48			2,064 48
June 30th, 1895	4,594 16				4,594 16
Dec. 31st, 1895	4,594 16				4,594 16
Jan. 31st, 1896		2,169 47			2,169 47
Jan. 31st, 1896			$27,146 54 (£5,231 2s. 0d. Ca. 3½% St.)		27,146 54
June 30th, 1896				$48,617 77 (£10,024 5s. 8d. B.C. 3% St)	48,617 77
June 30th, 1896	4,506 86				4,506 86
June 30th, 1896		1,539 23			1,539 23
Dec. 31st, 1896	4,343 18				4,343 18
Jan. 31st, 1897		1,627 48			1,627 48
June 30th, 1897	4,288 61	1,715 28			6,003 89
Jan. 31st, 1898	4,288 61	1,594 74			5,883 35
Jan. 31st, 1898				$14,584 92 (£2,879 10s. 6d. B.C. 3 % St)	14,584 92
June 30th, 1898	4,288 61	1,680 63			5,969 24
Dec. 31st, 1898	4,288 61	1,770 83			6,059 44
June 30th, 1899	4,288 61	1,862 64			6,151 25
Dec. 31st, 1899	4,288 61	1,955 60			6,244 21
June 30th, 1900	4,288 61	2,056 58			6,345 19
Dec. 31st, 1900	4,288 61	2,158 51			6,447 12
June 30th, 1901	4,288 61	2,263 33			6,551 94
Dec. 31st, 1901	4,288 61	2,371 92			6,660 53
June 30th, 1902	4,288 61	2,479 64			6,768 25
Dec. 31st, 1902	4,288 61	2,588 80			6,877 41
June 30th, 1903	4,288 61	2,702 78			6,991 39
Dec. 31st, 1903	4,288 61	2,820 29			7,108 90
June 30th, 1904	4,288 61	2,942 49			7,231 10
Dec. 31st, 1904	4,288 61	3,068 25			7,356 86
June 30th, 1905	4,288 61	3,197 32			7,485 93
Dec. 31st, 1905	4,288 61	3,324 73			7,613 34
June 30th, 1906	4,288 61	3,455 44			7,744 05
Dec. 31st, 1906	4,288 61	3,590 49			7,879 10
June 30th, 1907	4,288 61	3,728 09			8,016 70
Dec. 31st, 1907	4,288 61	3,869 59			8,158 20
June 30th, 1908	4,288 61	4,020 69			8,309 30
Dec. 31st, 1908	4,288 61	4,167 30			8,455 91
June 30th, 1909	4,288 61	4,317 47			8,606 08
Dec. 31st, 1909	4,288 61	4,469 27			8,757 88
June 30th, 1910	4,288 61	4,621 14			8,909 75
Dec. 31st, 1910	4,288 61	4,776 94			9,065 55
June 30th, 1911	4,288 61	4,935 96			9,224 57
Dec. 31st, 1911	4,288 61	5,100 18			9,388 79
June 30th, 1912	4,288 61	5,263 66			9,552 27
Dec. 31st, 1912	4,288 61	5,432 71			9,721 32
June 30th, 1913	4,288 61	5,609 88			9,898 49
Dec. 31st, 1913	4,288 61	5,796 01			10,084 62
June 30th, 1914	4,288 61	5,996 03			10,284 64
Dec. 31st, 1914	4,288 61	6,188 55			10,477 16
June 30th, 1915	4,288 61	6,386 22			10,674 83
Dec. 31st, 1915	4,288 61	6,595 84			10,884 45
June 30th, 1916	4,288 61	6,210 91			10,499 52
	$294,032 57	$169,641 80	$56,426 03	$63,202 69	$583,303 09

Date.	Investments.		Expenses and Brokerage	Withdrawal under "Release Act, 1896."	Total.
April 12th, 1888	Can. In. Stock, 3½ %	$ 8,467 13	$ 20 37		$ 8,487 50
June 30th, 1888	B.C. Deben's., 4½ %	8,768 80	19 53		8,788 33
Jan. 30th, 1889	Can. In. Stock, 3½ %	8,951 16	21 34		8,972 50
June 30th, 1889	Do. " 3½ %	9,193 05	21 95		9,215 00
Feb. 6th, 1890	Do. " 3 %	9,432 64	24 85		9,457 49
August, 1890	Do. " 3 %	9,432 52	24 98		9,457 50
Jan. 8th, 1891	Do. " 3 %	9,687 00	25 99		9,712 99
October, 1891	B.C. " 3 %	9,671 60	28 39		9,699 99
June 30th, 1892	Do. " 3 %	16,756 75	24 36		16,781 11
Mch. 31st, 1893	Do. " 3 %	7,878 83	11 03		7,889 86
June 30th, 1894	Do. " 3 %	13,054 85	35 86		13,090 71
June 30th, 1894	Do. " 3 %	5,714 45	15 83		5,730 28
June 30th, 1894	Do. " 3 %	29,199 46	80 03		29,279 49
Feb. 28th, 1895	Do. " 3 %	6,592 52	17 05		6,609 57
June 30th, 1895	Do. " 3 %	6,640 90	17 74		6,658 64
Jan. 31st, 1896	Do. " 3 %	6,746 41	17 21		6,763 62
Jan. 31st, 1896	Do. " 3 %	27,078 40	68 15		27,146 55
June 30th, 1896	Do. " 3 %	6,031 11	14 98		6,046 09
June 30th, 1896				$48,617 77	48,617 77
Jan. 31st, 1897	B.C. In. Stock 3 %	5,955 74	14 92		5,970 66
June 30th, 1897	Do. " 3 %	5,988 78	15 11		6,003 89
Jan. 31st, 1898	Do. " 3 %	5,868 80	14 55		5,883 35
Jan. 31st, 1898				14,584 92	14,584 92
June 30th, 1898	B.C. In. Stock 3 %	5,953 86	15 38		5,969 24
Dec. 31st, 1898	Do. " 3 %	6,043 93	15 52		6,059 45
June 30th, 1899	Do. " 3 %	6,135 48	15 76		6,151 24
Dec. 31st, 1899	Do. " 3 %	6,227 14	17 07		6,244 21
June 30th, 1900	Do. " 3 %	6,327 98	17 21		6,345 19
Dec. 31st, 1900	Do. " 3 %	6,429 40	17 72		6,447 12
June 30th, 1901	Do. " 3 %	6,533 51	18 43		6,551 94
Dec. 31st, 1901	Do. " 3 %	6,642 33	18 20		6,660 53
June 30th, 1902	Do. " 3 %	6,749 80	18 45		6,768 25
Dec. 31st, 1902	Do. " 3 %	6,858 14	19 27		6,877 41
June 30th, 1903	Do. " 3 %	6,971 51	19 88		6,991 39
Dec. 31st, 1903	Do. " 3 %	7,088 65	20 25		7,108 90
June 30th, 1904	Do. " 3 %	7,209 90	21 20		7,231 10
Dec. 31st, 1904	Do. " 3 %	7,335 04	21 82		7,356 86
June 30th, 1905	Do. " 3 %	7,464 47	21 46		7,485 93
Dec. 31st, 1905	Do. " 3 %	7,591 28	22 06		7,613 34
June 30th, 1906	Do. " 3 %	7,721 30	22 75		7,744 05
Dec. 31st, 1906	Do. " 3 %	7,855 93	23 17		7,879 10
June 30th, 1907	Do. " 3 %	8,016 70			8,016 70
Dec. 31st, 1907	Do. " 3 %	8,158 20			8,158 20
June 30th, 1908	Do. " 3 %	8,309 30			8,309 30
Dec. 31st, 1908	Do. " 3 %	8,455 91			8,455 91
June 30th, 1909	Do. " 3 %	8,606 08			8,606 08
Dec. 31st, 1909	Do. " 3 %	8,732 42	25 46		8,757 88
June 30th, 1910	Do. " 3 %	8,881 86	27 89		8,909 75
Dec. 31st, 1910	Do. " 3 %	9,037 91	27 64		9,065 55
June 30th, 1911	Do. " 3 %	9,195 72	28 85		9,224 57
Dec. 31st, 1911	Do. " 3 %	9,359 93	28 86		9,388 79
June 30th, 1912	Do. " 3 %	9,522 20	30 07		9,552 27
Dec. 31st, 1912	Do. " 3 %	9,690 04	31 28		9,721 32
June 30th, 1913	Do. " 3 %	9,865 99	32 50		9,898 49
Dec. 31st, 1913	Do. " 3 %	10,066 98	17 64		10,084 62
June 30th, 1914	Do. " 3 %	10,267 67	16 98		10,284 65
Dec. 31st, 1914	Do. " 3 %	10,443 20	33 95		10,477 15
June 30th, 1915	Do. " 3 %	10,638 33	36 50		10,674 83
Dec. 31st, 1915	Do. " 3 %	10,842 86	41 59		10,884 45
June 30th, 1916	Do. " 3 %	10,457 81	41 71		10,499 52
		$518,799 66	$1,300 74	$63,202 69	$583,303 09

Treasury, 24th November, 1917.

W. J. GOEPEL, *Deputy Minister of Finance.*

INSCRIBED STOCK. — SINKING FUND.

LOAN ACTS, 1891, 1893, 1895, 1899, and 1902.

DR. BRITISH COLUMBIA LOAN TRUSTEES, LONDON, IN ACCOUNT WITH THE PROVINCE OF BRITISH COLUMBIA. CR.

Date.	Remittances.	Interest on Investments.	Total.
December 23rd, 1891	$4,850 00		$4,850 00
June 23rd, 1892	4,850 00		4,850 00
June 30th, 1892		$ 13 34	13 34
Dec. 31st, 1892	8,946 92		8,946 92
March 31st, 1893		115 37	115 37
June 30th, 1893	9,751 28		9,751 28
December 31st, 1893	9,775 05		9,775 05
June 30th, 1894	10,001 79		10,001 79
June 30th, 1894		1,477 85	1,477 85
June 30th, 1894	17,998 35		17,998 35
December 31st, 1894	13,286 57		13,286 57
February 28th, 1895		1,096 62	1,096 62
June 30th, 1895		1,315 95	1,315 95
June 30th, 1895	13,336 04		13,336 04
December 31st, 1895	23,521 05		23,521 05
January 31st, 1896		1,547 19	1,547 19
June 30th, 1896	23,613 68		23,613 68
June 30th, 1896		1,936 88	1,936 88
December 31st, 1896	23,852 53		23,852 53
January 31st, 1897		2,309 87	2,309 87
June 30th, 1897	23,880 42	2,694 62	26,575 04
January 31st, 1898	23,880 43	3,088 32	26,968 75
June 30th, 1898	23,880 43	3,482 02	27,362 45
December 31st, 1898	23,880 43	3,895 54	27,775 97
June 30th, 1899	23,880 43	4,318 56	28,198 99
December 31st, 1899	30,684 98	4,734 69	35,419 67
June 30th, 1900	33,565 88	5,293 29	38,859 17
December 31st, 1900	32,125 43	5,917 42	38,042 85
June 30th, 1901	32,125 43	6,536 00	38,661 43
December 31st, 1901	32,125 43	7,176 78	39,302 21
June 30th, 1902	32,125 43	7,812 42	39,937 85
December 31st, 1902	32,125 43	8,456 56	40,581 99
June 30th, 1903	67,093 93	9,420 17	76,514 10
December 31st, 1903	49,609 68	10,412 26	60,021 94
June 30th, 1904	49,609 68	11,444 16	61,053 84
December 31st, 1904	49,609 68	12,505 96	62,115 64
June 30th, 1905	49,609 68	13,589 07	63,198 75
December 31st, 1905	49,609 68	14,661 57	64,271 25
June 30th, 1906	49,609 68	15,763 36	65,373 04
December 31st, 1906	49,609 68	16,903 58	66,513 26
June 30th, 1907	49,609 68	18,063 95	67,673 63
December 31st, 1907	49,609 68	19,258 20	68,867 88
June 30th, 1908	49,609 68	20,533 52	70,143 20
December 31st, 1908	49,609 68	21,771 34	71,381 02
June 30th, 1909	49,609 68	23,038 45	72,648 13
December 31st, 1909	49,609 68	24,320 47	73,930 15
June 30th, 1910	49,609 68	25,606 50	75,216 18
December 31st, 1910	49,609 68	26,919 27	76,528 95
June 30th, 1911	49,609 68	28,261 50	77,871 48
December 31st, 1911	49,609 68	29,648 17	79,257 85
June 30th, 1912	49,609 68	31,031 15	80,640 83
December 31st, 1912	49,609 68	32,459 84	82,069 52
June 30th, 1913	49,609 68	33,950 68	83,560 36
December 31st, 1913	49,609 68	35,521 07	85,130 75
June 30th, 1914	49,609 68	37,209 52	86,819 20
December 31st, 1914	49,609 68	38,834 76	88,444 44
June 30th, 1915	49,609 68	40,503 39	90,113 07
December 31st, 1915	49,609 68	42,273 14	91,882 82
June 30th, 1916		41,254 94	41,254 94
	$1,815,399 34	$748,379 58	$2,563,778 92

Date.	Investments.	Expenses and Brokerage.	Total.
March 31st, 1893	Brit. Columbia inscribed stock 3%	$16,195 36	$22 55	$16,217 91
June 30th, 1894	Do do 3%	25,800 10	70 57	25,870 67
June 30th, 1894	Do do 3%	13,655 07	37 40	13,692 47
Dec. 31st, 1894	Do do 3%	11,968 18	30 72	11,998 90
Feb. 28th, 1895	Do do 3%	14,346 44	36 75	14,383 19
June 30th, 1895	Do do 3%	14,613 19	38 80	14,651 99
Jan. 31st, 1896	Do do 3%	25,005 25	62 99	25,068 24
June 30th, 1896	Do do 3%	25,488 10	62 46	25,550 56
Jan. 31st, 1897	Do do 3%	26,097 90	64 50	26,162 40
June 30th, 1897	Do do 3%	26,509 15	65 89	26,575 04
Jan. 31st, 1898	Do do 3%	26,902 87	65 88	26,968 75
June 30th, 1898	Do do 3%	27,293 28	69 17	27,362 45
Dec. 31st, 1899	Do do 3%	27,706 33	69 64	27,775 97
June 30th, 1899	Do do 3%	28,127 57	71 42	28,198 99
Dec. 31st, 1900	Do do 3%	35,406 33	13 34	35,419 67
June 30th, 1900	Do do 3%	38,754 63	104 54	38,859 17
Dec. 31st, 1900	Do do 3%	37,939 49	103 36	38,042 85
June 30th, 1901	Do do 3%	38,554 37	107 06	38,661 43
Dec. 31st, 1901	Do do 3%	39,196 04	106 17	39,302 21
June 30th, 1902	Do do 3%	39,830 18	107 67	39,937 85
Dec. 31st, 1902	Do do 3%	40,468 99	113 00	40,581 99
June 30th, 1903	Do do 3%	76,299 73	214 37	76,514 10
Dec. 31st, 1903	Do do 3%	59,849 52	172 42	60,021 94
June 30th, 1904	Do do 3%	60,876 65	177 19	61,053 84
Dec. 31st, 1904	Do do 3%	61,934 86	180 78	62,115 64
June 30th, 1905	Do do 3%	63,019 06	179 69	63,198 75
Dec. 31st, 1905	Do do 3%	64,087 08	184 17	64,271 25
June 30th, 1906	Do do 3%	65,182 76	190 28	65,373 04
Dec. 31st, 1906	Do do 3%	66,319 34	193 92	66,513 26
June 30th, 1907	Do do 3%	67,673 63		67,673 63
Dec. 31st, 1907	Do do 3%	68,867 88		68,867 88
June 30th, 1908	Do do 3%	70,143 20		70,143 20
Dec. 31st, 1908	Do do 3%	71,381 02		71,381 02
June 30th, 1909	Do do 3%	72,648 13		72,648 13
Dec. 31st, 1909	Do do 3%	73,830 49	99 66	73,930 15
June 30th, 1910	Do do 3%	74,992 35	223 83	75,216 18
Dec. 31st, 1910	Do do 3%	76,300 28	228 67	76,528 95
June 30th, 1911	Do do 3%	77,636 01	235 47	77,871 48
Dec. 31st, 1911	Do do 3%	79,020 44	237 41	79,257 85
June 30th, 1912	Do do 3%	80,398 09	242 74	80,640 83
Dec. 31st, 1912	Do do 3%	81,813 20	256 32	82,069 52
June 30th, 1913	Do do 3%	83,292 40	267 96	83,560 36
Dec. 31st, 1913	Do do 3%	84,985 70	145 05	85,130 75
June 30th, 1914	Do do 3%	86,679 64	139 55	86,819 19
Dec. 31st, 1914	Do do 3%	88,159 64	284 81	88,444 45
June 30th, 1915	Do do 3%	89,813 83	299 24	90,113 07
Dec. 31st, 1915	Do do 3%	91,547 08	335 74	91,882 82
June 30th, 1916	Do do 3%	41,096 59	158 35	41,254 94
		$2,557,707 42	$6,071 50	$2,563,778 92

Treasury, 24th November, 1917.

W. J. GOEPEL, *Deputy Minister of Finance.*

UNIVERSITY OF ILLINOIS

LOAN ACT 1914.—SINKING FUND.

THE MINISTER OF FINANCE, TRUSTEE, IN ACCOUNT WITH THE PROVINCE OF BRITISH COLUMBIA.

DR.

Date.	Remittances.	Interest on Investments.	Bank Interest.	Total.
12th March, 1917....	$145,500 00	.....	.....	$145,500 00
31st do	.....	.....	$237 54	237 54
	$145,500 00	.....	$237 54	$145,737 54

CR.

Date.		Dominion Government 5 per cent. War Loan, 1937 (par value).	Purchase Price.	Cash in Bank.	Total.
12th March, 1917....	Investment.....	$151,500 00	$145,105 79	.....	$145,105 79
31st do	Uninvested.....	.....	.....	$631 75	631 75
		$151,500 00	$145,105 79	$631 75	$145,737 54

LOAN ACT 1915.—SINKING FUND.

THE MINISTER OF FINANCE, TRUSTEE, IN ACCOUNT WITH THE PROVINCE OF BRITISH COLUMBIA.

Date	Remittances.	Interest on Investments.	Bank Interest.	Total.
12th March, 1917....	$254,715 00	.....	.....	$254,715 00
31st do	.....	.....	$415 71	415 71
	$254,715 00	.....	$415 71	$255,130 71

Date.		Dominion Government 5 per cent. War Loan, 1937 (par value).	Purchase Price.	Cash in Bank.	Total.
12th March, 1917....	Investment.....	$265,300 00	$254,106 18	.....	$254,106 18
31st do	Uninvested.....	.....	.....	$1,024 53	1,024 53
		$265,300 00	$254,106 18	$1,024 53	$255,130 71

NAKUSP AND SLOCAN RAILWAY COMPANY, IN ACCOUNT WITH THE GOVERNMENT OF BRITISH COLUMBIA.

—o—

"NAKUSP AND SLOCAN RAILWAY AID ACT, 1894."

[STATEMENT UP TO DATE, 31ST MARCH, 1917.]

NOTE—The issue of Bonds by the Company is £131,400, payable in London, and £1,560 payable in Victoria, making a TOTAL ISSUE of £132,960 ($647,072), dated 1st July, 1893, bearing interest at the rate of 4 per cent. per annum, payable half-yearly, redeemable at the expiration of 25 years (1st July, 1918,) the Principal and Interest of which have been guaranteed by the Government of British Columbia.

DR.

Fiscal year ending 31st March.†	Amount paid for interest on bonds.	Commission for payment of interest in London.	Sundry payments.		Total payments.
1894	$ 25,882 87	.....	Accrued interest on $118,400 from 27th July, 1893, to 1st July, 1894	$3,849 00	$ 29,731 87
1895	25,535 40	$ 256 20	Accrued interest on $118,400 from 1st July, 1894, to 1st January, 1895	$2,072 00	
			Cablegrams	8 77	
			Express charges and insurance of bonds ...	94 25	
				2,175 02	27,966 62
1896	26,230 36	257 50	.....		26,487 86
1897	26,005 52	257 27	.....		26,262 79
1898	25,966 10	255 69	.....		26,221 79
1899	25,952 95	256 95	.....		26,209 90
1900	25,887 26	256 49	.....		26,143 75
1901	25,966 10	256 86	.....		26,222 96
1902	26,005 52	257 00	.....		26,262 52
1903	25,795 28	254 90	.....		26,050 18
1904	25,959 53	256 81	.....		26,216 34
1905	26,012 09	256 97	.....		26,269 06
1906	25,992 38	256 74	.....		26,249 12
1907	25,992 38	256 88	.....		26,249 26
1908	25,985 81	256 82	.....		26,242 63
1909	13,002 76	128 56	.....		13,131 26
1910	26,018 61	257 14	.....		26,275 75
1911	25,972 67	256 68	.....		26,229 35
1912	25,949 67	256 46	.....		26,206 13
1913	25,946 39	256 40	.....		26,202 79
1914	25,880 69	256 77	.....		26,137 46
1915	25,795 28	254 92	.....		26,050 20
1916	25,795 28	252 55	.....		26,047 83
1917	25,604 75	251 23	.....		25,855 98
					$620,923 40
			To balance		$297,374 80

CR.

Fiscal year ending 31st March.	Cash deposit in lieu of Dominion subsidy.	Accrued interest from 27th July, '93, to 31st Dec., '94.	Receipts from Can. Pac. Ry., being 40 % of gross earnings of the line.	Total Receipts.
				$118,400 00
1893	$118,400 00	.....	.....	
1895	.....	$ 5,921 00	$ 3,364 36	9,285 36
1896	.....	.....	11,266 13	11,266 13
1897	.....	.....	18,484 67	18,484 67
1898	.....	.....	17,752 89	17,752 89
1899	.....	.....	15,571 43	15,571 43
1900	.....	.....	9,806 34	9,806 34
1901	.....	.....	12,071 51	12,071 51
1902	.....	.....	8,334 92	8,334 92
1903	.....	.....	6,976 37	6,976 37
1904	.....	.....	9,429 66	9,429 66
1905	.....	.....	6,301 48	6,301 48
1906	.....	.....	9,783 96	9,783 96
1907	.....	.....	7,552 11	7,552 11
1908	.....	.....	6,765 80	6,765 80
1909	.....	.....	4,575 52	4,575 52
1910	.....	.....	5,191 92	5,191 92
1911	.....	.....	5,709 81	5,709 81
1912	.....	.....	8,326 84	8,326 84
1913	.....	.....	9,024 35	9,024 35
1914	.....	.....	9,383 12	9,383 12
1915	.....	.....	4,908 46	4,908 46
1916	.....	.....	3,363 06	3,363 06
1917	.....	.....	5,282 89	5,282 89
	By balance		.....	297,374 80
				$620,923 40

† Fiscal year ended 30th June, prior to 1909.

SECURITIES deposited with the Government as at 31st March, 1917, pursuant to the "British Columbia Fire Insurance Act," Chapter 113, R.S.B.C. 1911, and the "Insurance Act," Chapter 33, 1913.

NAME OF COMPANY.	Accepted Value of Security.	NATURE OF SECURITY.
Agricultural Insurance Company	$25,000 00	Bond of the National Surety Company.
Alliance Insurance Company of Philadelphia	25,000 00	Bond of the National Surety Company.
American Life & Accident Insurance Company	700 00	Deposit Receipt, Canadian Bank of Commerce.
Boston Insurance Company	25,000 00	Bond of the Canadian Surety Company.
British Columbia Plate Glass Insurance Company	5,973 32	5 Township of Richmond Debentures, Waterworks By-law 141—$1,000 each. British Columbia 3% Inscribed stock—£200 sterling.
British Crown Assurance Corporation, Limited	25,220 00	5 City of Cranbrook Debentures, Sewage By-law 96—$1,000 each. 10 District of Coquitlam Debentures, Road By-law, 1911—$1,000 each. 21 City of Victoria Debentures, By-law 811—£100 sterling, each.
Century Insurance Company, Ltd.	29,893 28	10 Corporation of Richmond Debentures, Waterworks Extension By-law 151—$1,000 each. 16 Corporation of Richmond Debentures, Road By-law 152—$1,000 each. 4 Grand Trunk Pacific Railway Company Lake Superior Branch Bonds—£200 sterling, each.
Citizens' Insurance Company of Missouri	25,000 00	Bond of the United States Fidelity & Guaranty Company.
Commercial Union Fire Insurance Company of New York	25,000 00	Bond of the Ocean Accident & Guarantee Corporation, Ltd.
Detroit Fire & Marine Insurance Company	25,000 00	Bond of the National Surety Company.
Fire Association of Philadelphia	25,000 00	Bond of the Canadian Surety Company.
The Franklin Fire Insurance Company of Philadelphia	25,000 00	Bond of the Canadian Surety Company.
German Alliance Insurance Company	25,000 00	Bond of the National Surety Company.
Guardian Casualty & Guaranty Company of Utah	25,000 00	Deposit Receipt, Union Bank of Canada.
Industrial Fire Insurance Company	25,000 00	Bond of the United States Fidelity & Guaranty Company.
Mechanics' & Traders' Insurance Company	25,000 00	Bond of the United States Fidelity & Guaranty Company.
Merchants Fire Assurance Corporation of New York	25,000 00	Bond of the Canadian Surety Company.
Michigan Commercial Insurance Company	25,000 00	Bond of the United States Fidelity & Guaranty Company.
Michigan Fire & Marine Insurance Company	25,000 00	Bond of the United States Fidelity & Guaranty Company.
Minneapolis Fire & Marine Insurance Company	25,000 00	Bond of the Canadian Surety Company.
National Benefit Life & Property Assurance Company, Ltd.	27,233 20	City of Regina 5% Consolidated Registered Stock—£2,000 sterling. 15 City of New Westminster 5% Exhibition Building and Fence Debentures—$1,000 each. Canadian Pacific Railway Co., 6% Note Certificates, No. M.D. 287, $500; No. M.M. 2193 and No. M.M. 2194—$1,000 each.
National Plate Glass Insurance Company, Limited	5,510 00	5 City of Salmon Arm 5% Debentures—$1,000 each. 3 City of Nelson 5% Street Railway Purchase By-law Debentures—$100 each. 3 City of Alberni Roger Creek Debentures By-law 19—$70 each.
Newark Fire Insurance Company	25,000 00	Bond of the United States Fidelity & Guaranty Company.
New Jersey Fire Insurance Company	25,000 00	Bond of the Canadian Surety Company.
New Zealand Insurance Company, Ltd.	25,000 00	Bond of the Guarantee Company of North America.
Northwestern Mutual Fire Association	25,000 00	Bond of the United States Fidelity & Guaranty Company.
Pacific Fire Insurance Company	25,000 00	Bond of the Canadian Surety Company.
Pacific States Fire Insurance Company	25,000 00	25 City of New Westminster three-year 6% Gold Treasury Notes, $1,000 each.
The Reliance Insurance Company of Philadelphia	25,000 00	Bond of the United States Fidelity & Guaranty Company.
Rhode Island Insurance Company	25,000 00	Bond of the Canadian Surety Company.
Royal Plate Glass Insurance Company	5,125 00	Deposit Receipt, Canadian Bank of Commerce—$125. 5 Dominion of Canada War Loan, 5% Bonds, No. 11189 to No. 11193 (inclusive)—$1,000 each.
Svea Fire & Life Insurance Company, Ltd.	25,000 00	Bond of the National Surety Company.
Union Marine Insurance Company, Ltd.	24,333 00	4½% First Mortgage Terminal Debenture Stock of Canadian Northern Pacific Railway Company, guaranteed by the Province of British Columbia—£5,000.
Vulcan Fire Insurance Company of Oakland, Cal.	25,000 00	Bond of the National Surety Company.
Western Life Assurance Company	25,000 00	30 Edmonton, Dunvegan & British Columbia Railway 4½% First Mortgage Bonds, guaranteed by Province of Alberta—$1,000 each and cash $187.

Certified,

A. N. MOUAT, C.A.,
Comptroller-General.

W. J. GOEPEL,
Deputy Minister of Finance.

SECURITIES deposited with the Government as at 31st March, 1917, pursuant to various Acts of Incorporation.

NAME OF COMPANY.	Accepted Value of Security.	NATURE OF SECURITY.	AUTHORITY FOR DEPOSIT.
B.C. Trust Company	$25,000 00	Bond, F. Carter-Cotton, R. Kelly	Section 4, chapter 49, 1907.
Dominion Trust Company	50,000 00	*Bond, London Guarantee & Accident Company, Ltd.	Section 9, chapter 89, 1913.

Certified,

A. N. MOUAT, C.A.,
Comptroller-General.

W. J. GOEPEL,
Deputy Minister of Finance.

SECURITIES deposited with the Government as at 31st March, 1917, pursuant to the "Trust Companies Act," Chapter 13, 1914.

NAME OF COMPANY.	Accepted Value of Security.	NATURE OF SECURITY.
British American Trust Company	$50,000 00	*Bond of Railway Passengers Assurance Co.
B.C. Land and Investment Agency, Ltd	50,000 00	Conveyance and Certificate of Title of Lots 13 and 14, Block 75, Victoria.
B.C. Trust Corporation	50,000 00	Conveyance of undivided one-half interest in 313 lots, North Vancouver.
Canada Permanent Trust Company	25,000 00	Canadian Pacific Railway Company's 6% Notes Nos. M. 53270 to 53293 and 53890.
Canadian Financiers Trust Company	25,000 00	Assignment of 5 mortgages Vancouver City, Hastings Townsite, Point Grey.
Canadian Liverpool Trust Company	25,000 00	*Bond, Guardian Casualty and Guaranty Co.
Continental Trust Company	25,000 00	*Bond, Guardian Casualty and Guaranty Co.
Colonial Trust Company	50,000 00	Bond, Employers Liability Assurance Corporation.
Dow Fraser Trust Company	75,000 00	Bonds, *Railway Passengers Assurance Co., Guardian Casualty and Guaranty Co., and assignment of 18 mortgages.
Dominion Trust Company	200,000 00	*Bond, Railway Passengers Assurance Co.
General Administration Society of Montreal	25,000 00	Bond, Globe Indemnity Company.
Imperial Canadian Trust Company	25,000 00	Assignment of mortgage.
Japan and Canada Trust Savings Company, Ltd	75,000 00	Assignment of mortgages.
Michigan Trust Company	25,000 00	Municipal Debentures, Moose Jaw, By-law No. 779, Nos. 11810 to 11834.
Montreal Trust Company	200,000 00	Deposit Receipt, Royal Bank of Canada.
National Finance Company, Ltd.	125,000 00	Conveyance of 8 lots, Vancouver City, subject to mortgage of $35,000.
National Trust Company	200,000 00	Bond, Imperial Guarantee and Accident Insurance Co.
National Finance Trustee, Ltd.	25,000 00	*Bond, United States Fidelity and Guaranty Co.
Northern Trust Company	25,000 00	Deposit Receipt, Union Bank of Canada.
North West Trust Company	175,000 00	Conveyance of Vancouver Realty subject to mortgage of $75,000.
Prudential Trust Company	25,000 00	Municipal Debentures, City of Victoria, $8,500. Municipal Debentures, Oak Bay, $9,000. Municipal Debentures, Point Grey, $11,000.
Royal Financial Corporation	25,000 00	*Bond, Guardian Casualty and Guaranty Co.
Royal Trust Company	200,000 00	Deposit Receipt, Bank of Montreal.
Standard Trusts Company	25,000 00	Bond, Employers Liability Assurance Co., Ltd.
Sterling Trust Company	25,000 00	Assignment of 2 mortgages, Vancouver realty.
Toronto General Trusts Corporation	25,000 00	Bond, Dominion of Canada Guarantee and Accident Insurance Co.
Trustee Company, Ltd.	25,000 00	*Bond, National Surety Co. of New York.
Trust Company of Victoria	25,000 00	*Bond, National Surety Co. of New York.
Vancouver Trust Company	50,000 00	Assignment of mortgage, New Westminster District.
Westminster Trust Company	150,000 00	44 Glen Valley Dyking Bonds, $22,000. Mortgage of New Westminster City property, $170,000, subject to encumbrance of $30,000 on account of unpaid instalments of purchase price.
Yorkshire and Canadian Trust, Ltd.	200,000 00	Assignment of mortgages, $207,325.

* Bonds not good for new business at this date, but are held as security in respect of business previously existing, arising, contracted, or entered into during the period of their currency.—
A. N. M.

W. J. GOEPEL,
Deputy Minister of Finance.

Certified,

A. N. MOUAT, C.A.,
Comptroller-General.

APPROPRIATION AND EXPENDITURE

FOR THE FISCAL YEAR ENDED 31ST MARCH, 1917.

STATEMENT of Appropriation and Expenditure from 1st April, 1916, to 31st March, 1917; showing also the sums unexpended and overexpended.

No. of Vote.	SERVICE.			TOTAL APPROPRIATION	TOTAL EXPENDITURE.	UNEXPENDED.	OVER-EXPENDED.
	I.—PUBLIC DEBT.						
1	Interest	Appropriation,	$798,612 53				
		Supplementary,	5,424 66				
		Statutory,	47,602 70				
				$851,639 89	$827,774 30	$ 23,865 59	.....
2	Sinking Fund			612,141 58	452,422 65	159,718 93	.....
3	Premium and Exchange			2,000 00	94 57	1,905 43	.....
4	Discount and Commission	Appropriation,	$ 9,500 00				
		Statutory,	100,327 88	109,827 88	107,155 82	2,672 06	.....
				1,575,609 35	1,387,447 34	188,162 01	.....
	II.—CIVIL GOVERNMENT (SALARIES).						
5	Lieutenant-Governor's Office			2,100 00	2,100 00	.....	.....
6	Premier's Office			6,380 00	6,275 08	104 92	.....
7	Provincial Secretary's Department	Appropriation,	$259,576 00				
		Special Warrant No. 2,	480 00				
				260,056 00	236,561 14	23,494 86	.....
8	Department of Mines			48,856 00	47,516 32	1,339 68	.....
9	do Finance			73,934 00	68,656 75	5,277 25	.....
10	do Agriculture			73,496 00	62,566 94	10,929 06	.....
11	do Lands			296,218 00	223,702 86	72,515 14	.....
12	do Public Works			127,376 00	119,283 22	8,092 78	.....
13	do Railways			10,372 00	9,189 45	1,182 55	.....
14	Attorney-General's Department			540,216 00	474,799 63	65,416 37	.....
15	Government Agencies			249,212 00	226,960 06	22,251 94	.....
				1,688,216 00	1,477,611 45	210,604 55	.....
	III.—ADMINISTRATION OF JUSTICE (SALARIES).						
16	Stipendiary Magistrates			3,300 00	2,292 74	1,007 26	.....
17	County Gaols			64,128 00	56,908 78	7,219 22	.....
				67,428 00	59,201 52	8,226 48	.....
	IV.—LEGISLATION.						
18	Sessional Salaries			5,420 00	5,290 00	130 00	.....
19	Indemnity to Members			75,200 00	71,900 00	3,300 00	.....
20	Mileage			7,000 00	5,520 50	1,479 50	.....
21	Registration of Voters			3,000 00	2,524 36	475 64	.....
22	Expenses of Elections	Appropriation,	$70,000 00				
		Special Warrant No. 15,	30,000 00				
		Supplementary,	2,500 00				
				102,500 00	101,081 67	1,418 33	.....
23	Fees and Expenses of Witnesses attending and giving Evidence before Select Standing Committees,	Appropriation,	$1,000 00				
		Special Warrant No. 31,	1,000 00				
				2,000 00	1,012 45	987 55	.....
23A	Expenses incurred in connection with Inquiries by Select Standing Committee	Supplementary,	$6,000 00	6,000 00	5,969 05	30 95	.....
24	Contingent Fund	Appropriation,	6,000 00				
		Supplementary,	1,000 00				
		Special Warrant No. 31,	6,500 00				
				13,500 00	12,982 99	517 01	.....
				214,620 00	206,281 02	8,338 98	.....
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).						
25	Bureau of Mines			29,000 00	10,160 68	18,839 32	.....
26	Mine-rescue Stations			16,250 00	4,936 32	11,313 68	.....
27	Fisheries			30,000 00	17,528 80	12,471 20	.....
28	Mental Hospital, Essondale	Appropriation,	$131,580 00				
		Supplementary,	1,700 00				
				133,280 00	132,860 65	419 35	.....
29	Colony Farm, "	Appropriation,	$38,600 00				
		Supplementary,	120 00				
				38,720 00	37,314 19	1,405 81	.....
	Carried forward			$247,250 00	$202,800 64	$44,449 36	.....

No. of Vote.	SERVICE.	TOTAL APPROPRIATION	TOTAL EXPENDITURE.	UNEXPENDED.	OVER-EXPENDED.
	Brought forward	$247,250 00	$202,800 64	$44,449 36	
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Concluded.*				
30	Nursery, Essondale	6,060 00	6,045 24	14 76	
31	Mental Hospital, New Westminster, Appropriation, $110,935 00 Supplementary, 600 00	111,535 00	110,235 22	1,299 78	
32	Printing Office, Victoria	66,000 00	52,000 31	13,999 69	
33	Provincial Home, Kamloops .. ....Appropriation, $19,150 00 Supplementary, 2,000 00	21,150 00	21,147 31	2 69	
34	Provincial Museum	4,000 00	3,372 70	627 30	
35	Industrial School for Boys	15,000 00	12,445 55	2,554 45	
36	do do Girls	6,000 00	4,484 44	1,515 56	
		476,995 00	412,531 41	64,463 59	
	VI.—HOSPITALS AND CHARITIES.				
37	Grants to Hospitals	275,000 00	280,985 55		$5,985 55
38	Grants to Refuge Homes, Aid Societies, etc. (subject to Government inspection)	19,000 00	16,950 00	2,050 00	
39	In Aid of Resident Physician, Alert Bay	500 00	500 00		
40	do Arrowhead	300 00		300 00	
41	do Atlin	500 00	500 00		
42	do Bella Coola	300 00	300 00		
43	do Campbell River	300 00	300 00		
44	do Chase	300 00	300 00		
45	do Chilcotin	300 00	300 00		
46	do Clayoquot	300 00	300 00		
47	do Clinton	300 00	300 00		
48	do Fraser Lake	300 00		300 00	
49	do Gulf Islands	600 00	600 00		
50	do Gibson's Landing and Squamish	300 00	300 00		
51	do Kitwanga	300 00	300 00		
52	do Masset	500 00	166 66	333 34	
53	do Nakusp	300 00	300 00		
54	do Nobles	300 00	300 00		
55	do 150-Mile House	200 00	200 00		
56	do Parksville	300 00	287 50	12 50	
57	do Port Simpson	300 00	300 00		
58	do Quatsino	500 00		500 00	
59	do Queen Charlotte Islands	500 00		500 00	
60	do Quesnel	300 00	300 00		
61	do Rock Bay	300 00	300 00		
62	do Salmon River	300 00		300 00	
63	do Telegraph Creek	400 00		400 00	
64	do Terrace	300 00		300 00	
65	do Vananda	500 00	500 00		
66	do West Coast (Ucluelet)	400 00	233 33	166 67	
67	do Windermere District	300 00	225 00	75 00	
68	Contingencies	2,000 00	936 86	1,063 14	
69	Children's Protection Act.....Appropriation, $9,500 00 Special Warrant No. 40, 2,500 00	12,000 00	11,562 70	437 30	
70	In aid of Destitute Poor and Sick	60,000 00	19,393 07	40,606 93	
71	Assistance, building Hospitals	150,000 00	149,650 00	350 00	
		528,300 00	486,590 67	47,694 88	$5,985.55
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES.)				
72	Summoning and Paying Witnesses	30,000 00	13,510 08	16,489 92	
73	Paying Grand and Petit Jurors ..	25,000 00	17,938 30	7,061 70	
74	Prosecution and Interpreters	25,000 00	20,058 16	4,941 84	
75	Expenses of Inquests	7,500 00	4,856 84	2,643 16	
76	Rewards	2,500 00		2,500 00	
77	Keep of Prisoners	60,000 00	39,949 51	20,050 49	
78	Special Constables	45,000 00	21,287 80	23,712 20	
79	Transport of Police Officers, Constables and Prisoners	65,000 00	38,947 04	26,052 96	
80	Medical Officers at Gaols (fixed allowances)	2,420 00	2,419 88	12	
81	Inspection of Licensed Premises (allowance to Deputies)	1,500 00	1,080 00	420 00	
82	Allowance to Sheriffs (fixed allowances)	9,750 00	7,500 00	2,250 00	
83	Constitutional Litigation and General Law Costs	15,000 00	11,684 43	3,315 57	
84	Miscellaneous	20,000 00	9,729 75	10,270 25	
		308,670 00	188,961 79	119,708 21	
	VIII.—EDUCATION.				
85	Education Office	15,000 00	12,145 86	2,854 14	
86	Free Text-book Branch	55,000 00	42,512 50	12,487 50	
87	Inspection of Schools	17,500 00	13,446 68	4,053 32	
88	Provincial Normal Schools	9,500 00	7,899 78	1,600 22	
89	Education of Deaf, Dumb, & Blind	14,000 00	12,586 60	1,413 40	
90	Agricultural Education	20,000 00	2,157 82	17,842 18	
91	Industrial Education	15,000 00	6,879 37	8,120 63	
92	Per Capita Grant to City, Municipality, and Rural School Districts	965,000 00	878,762 90	86,237 10	
93	Salaries of Teachers in Assisted Schools	310,000 00	278,419 00	31,581 00	
94	do in E. & N. Railway Belt	85,000 00	66,888 05	18,111 95	
	Carried forward	$1,506,000 00	$1,321,698 56	$184,301 44	

No. of Vote.	SERVICE.	TOTAL APPROPRIATION	TOTAL EXPENDITURE.	UNEXPENDED.	OVER-EXPENDED.
	Brought forward	$1,506,000 00	$1,321,698 56	$184,301 44	.....
	VIII.—EDUCATION.—*Concluded.*				
95	Grant to Libraries	2,500 00	221 39	2,278 61	.....
96	Conveying Children to Central School	3,500 00	1,584 55	1,915 45	.....
97	Manual Training Equipment	5,000 00	4,974 72	25 28	.....
98	Contingencies	7,500 00	2,934 21	4,565 79	.....
		1,524,500 00	1,331,413 43	193,086 57	.....
	IX.—TRANSPORT.				
99	Charges on Remittances	3,000 00	675 31	2,324 69	.....
100	Travelling Expenses of Officers on Duty (not otherwise provided for)	40,000 00	31,699 07	8,300 93	.....
		43,000 00	32,374 38	10,625 62	.....
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).				
101	Administration and Outside Service (including agricultural products for departmental exhibition-room and miscellaneous expenditure)	20,000 00	16,701 54	3,298 46	.....
102	Board of Horticulture, Expenses of Members attending Meetings	500 00	131 00	369 00	.....
103	Crop Competitions in Commercial Fruits and Vegetables, and Garden and Vacant Lot Competitions and Demonstrations	2,000 00	852 35	1,147 65	.....
104	Demonstration Orchards and Experimental Trees	1,000 00	376 87	623 13	.....
105	Fruit-handling, Cold-storage, and Precooling Investigation Work	1,000 00	149 01	850 99	.....
106	Fruit-packing Schools	1,500 00	1,499 27	73	.....
107	In Aid of Agricultural Associations	30,000 00	19,638 69	10,361 31	.....
108	do B.C. Dairymen's Association	2,500 00	2,106 25	393 75	.....
109	do B.C. Entomological Society	250 00	250 00	.....	.....
110	do B.C. Fruit-growers' Association	5,000 00	4,998 42	1 58	.....
111	do B.C. Poultry Association	2,500 00	1,171 00	1,329 00	.....
112	do B.C. Stock-breeders' Association	2,500 00	2,076 76	423 24	.....
113	do Flockmasters' Association	250 00	250 00	.....	.....
114	do Farmers' Institutes (including educational work)	20,000 00	12,925 28	7,074 72	.....
115	do Women's Institutes (including educational work)	7,500 00	7,253 49	246 51	.....
116	Inspection of Nursery Stock, Trees, Plants, etc	20,000 00	6,036 06	13,963 94	.....
117	Suppression of Diseases affecting Fruits, Vegetables, Plants, etc.	15,000 00	13,468 86	1,531 14	.....
118	Suppression of Noxious Weeds	10,000 00	6,052 16	3,947 84	.....
119	Compensation to Owners of Cattle slaughtered for Tuberculosis	10,000 00	9,702 93	297 07	.....
120	Travelling Expenses of Officers on Duty	25,000 00	18,459 31	6,540 69	.....
		176,500 00	124,099 25	52,400 75	.....
	XI.—REVENUE SERVICES.				
121	Commission, Courts of Appeal, Travelling Expenses, and Miscellaneous	25,000 00	18,196 09	6,803 91	.....
	XII.—PUBLIC WORKS.				
	Works and Buildings.				
122	Court-house, Prince Rupert	10,000 00	238 70	9,761 30	.....
123	Furniture, Government Offices throughout the Province	20,000 00	10,837 84	9,162 16	.....
124	Gaols and Lock-ups throughout the Province (maintenence and repairs)	20,000 00	4,305 65	15,694 35	.....
125	Prison Farm, Oakalla	15,000 00	6,390 84	8,609 16	.....
126	do Saanich	15,000 00	11,870 48	3,129 52	.....
127	Improvement of Government Grounds, Victoria	15,000 00	8,540 64	6,459 36	.....
128	do " throughout the Province	10,000 00	4,098 51	5,901 49	.....
129	do Reserve, Burnaby	10,000 00	.....	10,000 00	.....
130	King Edward Sanatorium, Tranquille	10,000 00	10,000 00	.....	.....
131	Mental Hospital, Essondale	17,900 00	15,905 55	1,994 45	.....
132	Nursery, "	13,000 00	8,673 05	4,326 95	.....
133	Colony Farm, Essondale.....Appropriation, $4,000 00 Supplementary, 2,000 00	6,000 00	5,047 00	953 00	.....
134	Mental Hospital, New Westminster	10,000 00	8,956 30	1,043 70	.....
135	Provincial Government Buildings, London, England (completion and maintenance)	175,000 00	153,883 05	21,116 95	.....
136	Provincial Normal School, Vancouver (maintenance). Appropriation, $2,500 00 Supplementary, 500 00 Special Warrant No. 32, 500 00	3,500 00	3,379 39	120 61	.....
137	Provincial Normal School, Victoria (maintenance)	8,000 00	3,037 38	4,962 62	.....
138	Public Schools throughout the Province	200,000 00	124,747 46	75,252 54	.....
139	Repairs to Buildings, Furniture, Fuel, Light, etc., Government House (including upkeep of garden)	17,000 00	16,907 94	92 06	.....
140	Repairs to Government Buildings throughout the Province	20,000 00	18,161 53	1,838 47	.....
141	Repairs to Parliament Buildings	14,500 00	14,102 63	397 37	.....
		609,900 00	429,083 94	180,816 06	.....
	Roads, Streets, Bridges, and Wharves.				
142	Alberni District	53,500 00	50,170 62	3,329 38	.....
143	Atlin "	18,000 00	17,896 57	103 43	.....
	Carried forward	$71,500 00	$68,067 19	$3,432 81	.....

No. of Vote.	SERVICE.	TOTAL APPROPRIATION	TOTAL EXPENDITURE.	UNEXPENDED.	OVER-EXPENDED.
	Brought forward	$71,500 00	$68,067 19	$3,432 81	
	XII.—PUBLIC WORKS.—*Continued.*				
	Roads, Streets, Bridges, and Wharves.—Concluded.				
144	Cariboo District	123,000 00	122,580 93	419 07	
145	Chilliwack "	33,300 00	33,212 92	87 08	
146	Columbia "	36,000 00	35,686 57	313 43	
147	Comox "	59,500 00	51,322 62	8,177 38	
148	Cowichan "	33,300 00	27,510 21	5,789 79	
149	Cranbrook "	41,000 00	39,440 34	1,559 66	
150	Delta "	22,500 00	21,714 74	785 26	
151	Dewdney "	68,500 00	64,922 09	3,577 91	
152	Esquimalt "	36,000 00	35,999 48	52	
153	Fernie "	41,000 00	34,268 40	6,731 60	
154	Grand Forks "	28,800 00	26,998 99	1,801 01	
155	Greenwood "	19,800 00	19,301 63	498 37	
156	The Islands "	27,000 00	25,304 33	1,695 67	
157	Kamloops "	72,000 00	57,193 64	14,806 36	
158	Kaslo "	36,000 00	35,027 86	972 14	
159	Lillooet "	65,000 00	54,125 73	10,874 27	
160	Nanaimo City "	9,000 00	7,653 26	1,346 74	
161	Newcastle "	24,300 00	22,535 34	1,764 66	
162	Okanagan "	79,000 00	73,561 28	5,438 72	
163	Revelstoke " Appropriation, $37,000 00 Supplementary, 300 00 Special Warrant No. 25, 1,000 00	38,300 00	38,130 45	169 55	
164	Richmond "	40,000 00	39,044 48	955 52	
165	Saanich "	5,500 00	1,293 19	4,206 81	
166	Similkameen "	72,000 00	70,964 35	1,035 65	
167	Skeena "	176,000 00	170,350 64	5,649 36	
168	Slocan "	36,000 00	35,771 96	228 04	
169	Yale "	51,300 00	49,616 91	1,683 09	
170	Ymir "	72,000 00	68,825 41	3,174 59	
171	Kingsway-Burnaby Municipality (revote)	80,500 00		80,500 00	
172	Roads, Point Grey	10,000 00	9,359 75	640 25	
173	Road-construction, Interned Aliens	30,000 00	16,957 57	13,042 43	
174	Road, Strathcona Park	9,000 00	8,800 28	199 72	
175	Observatory Road (completion)	2,000 00	1,847 00	153 00	
176	Main Road, Saanich Paving	20,000 00	19,459 74	540 26	
177	Assistance towards Dyke, Nicomen Island	10,000 00	10,000 00		
178	Confining Peterson Creek through Crown Lands, Sections 25 and 36, Township 106, Kamloops District	25,000 00		25,000 00	
179	Location of Roads	5,000 00	4,577 79	422 21	
180	Protection of River-banks Appropriation, $10,000 00 Special Warrant No. 39, 3,200 00	13,200 00	12,730 86	469 14	
181	Road Machinery	5,000 00	3,291 69	1,708 31	
182	Wharves generally	25,000 00	19,085 36	5,914 64	
183	Wharf, Prince Rupert (maintenance)	8,000 00	6,462 99	1,537 01	
184	Bridges generally	450,000 00	346,964 02	103,035 98	
184A	Claim, Armstrong, Morrison & Co., Ltd., Interest on Deferred Payment, Contract, Pitt River Bridge, Supplementary	1,240 00		1,240 00	
185	Bridge, Fraser River, Prince George	150,000 00	150,000 00		
		2,261,540 00	1,939,961 99	321,578 01	
	Subsidies and Maintenance, Steamboats, Ferries, and Bridges.				
	Ferries.				
186	Barnston Island	3,500 00	3,440 41	59 59	
187	Bulkley River, South Hazelton	2,500 00	1,272 39	1,227 61	
188	Canoe River	800 00	783 70	16 30	
189	Columbia River, Goldstream	100 00	100 00		
190	do Waterloo	500 00		500 00	
191	Francois Lake	7,500 00	6,501 08	998 92	
192	Fraser River at Alexandria	1,200 00	1,129 32	70 68	
193	do Macalister	5,000 00	295 00	4,705 00	
194	do Agassiz	3,500 00	3,500 00		
195	do Big Bar	1,000 00	836 85	163 15	
196	do Chilliwack-Harrison	800 00	800 00		
197	do Fort George	1,500 00	539 80	960 20	
198	do High Bar	1,100 00	600 00	500 00	
199	do Lytton (above)	1,000 00	571 50	428 50	
200	do Mission	8,000 00	5,541 87	2,458 13	
201	do Quesnel	1,800 00	1,470 16	329 84	
202	do Rauch Valley	3,000 00	2,610 22	389 78	
203	do Ruby Creek	600 00	200 00	400 00	
204	do Lee's Landing	525 00		525 00	
205	do Soda Creek Appropriation, $2,000 00 Special Warrant No. 36, 150 00	2,150 00	2,121 01	28 99	
206	do Twenty-mile Post, above Lillooet	500 00	500 00		
207	do Ladner-Woodward Appropriation, $13,500 00 Special Warrant No. 34, 4,100 00	17,600 00	17,307 57	292 43	
208	East Summerland	1,000 00	1,000 00		
	Carried forward	$65,175 00	$51,120 88	$14,054 12	

No. of Vote.	SERVICE.	Total Appropriation	Total Expenditure.	Unexpended.	Over-expended.
	Brought forward	$65,175 00	$51,120 88	$14,054 12	
	XII.—Public Works.—*Concluded.*				
	Subsidies and Maintenance, Steamboats, Ferries, and Bridges.—Concluded.				
	Ferries.—Concluded.				
209	Hall's Landing	475 00	475 00		
210	Kelowna-Westbank	1,000 00	1,000 00		
211	Kootenay River, Lewis	100 00	76 25	23 75	
212	do Reclamation Farm..Appropriation, $1,100 00 Supplementary, 125 00	1,225 00	1,214 51	10 49	
213	Nechako River, Fraser Lake	1,000 00	833 80	166 20	
214	do Fort George	1,500 00	720 33	779 67	
215	do near mouth of Chilako River	3,000 00	2,978 13	21 87	
216	do Neulett, near Vanderhoof	3,000 00		3,000 00	
217	do Vanderhoof	1,000 00	614 80	385 20	
218	North Thompson River, Bester, Mosquito Flat	600 00	562 10	37 90	
219	do Chinook Cove	600 00	586 14	13 86	
220	do Jones'..... Appropriation, $600 00 Special Warrant No. 38, 250 00	850 00	823 17	26 83	
221	do Little Fort	1,150 00	920 70	229 30	
222	do Upper Crossing	1,200 00	1,027 57	172 43	
223	Shuswap Lake, Sorrento, Scotch Creek, Appropriation, $1,580 00 Special Warrant No. 35, 250 00	1,830 00	1,721 26	108 74	
224	South Thompson, Ducks	650 00	597 97	52 03	
225	do Pritchard	600 00	588 37	11 63	
226	Stuart Lake	900 00	496 25	403 75	
227	Stewart River, Tsinkit-Stuart Lake Road	3,000 00	2,988 24	11 76	
228	Skeena River, Breckenridge	1,020 00	653 00	367 00	
229	do Copper City	1,300 00	724 71	575 29	
230	do Hazelton	750 00	190 41	559 59	
231	do Kitwanga	1,300 00	735 97	564 03	
232	do Meanskinisht-Cedarville	4,500 00	3,015 66	1,484 34	
233	do Pacific	4,500 00	4,306 01	193 99	
234	do Terrace .....Appropriation, $1,380 00 Special Warrant No. 29, 600 00	1,980 00	1,915 66	64 34	
235	do Usk	1,300 00	1,083 75	216 25	
236	West Arm, Kootenay Lake, at Nelson, Appropriation, $3,600 00 Supplementary, 400 00 Special Warrant No. 30, 600 00	4,600 00	4,301 10	298 90	
	Bridge-tenders.				
237	Canoe Pass	720 00	720 00		
238	Eburne	840 00	840 00		
239	Kamloops	540 00	540 00		
240	Pitt River	1,680 00	1,680 00		
	Steamboats.				
241	North-east Arm Arrow Lake	3,000 00	2,400 00	600 00	
242	Dog Lake, Similkameen	1,250 00	1,250 00		
243	Shuswap Lake (conditional)	4,000 00	3,961 54	38 46	
	Miscellaneous.	122,135 00	97,663 28	24,471 72	
244	Boiler Inspection (maintenance, wages, repairs, etc., launch "Adanac"	2,500 00	1,961 28	538 72	
245	Extra Janitors and Janitors' Supplies, Appropriation, $20,000 00 Supplementary, 4,200 00	24,200 00	23,917 82	282 18	
246	Garage, Victoria (chauffeurs' wages and expenses, supplies and repairs)	4,000 00	3,892 83	107 17	
247	Premium, Insurance, Government Buildings	16,650 00	14,872 00	1,778 00	
248	Special Guard, Parliament Buildings, Appropriation, $1,500 00 Supplementary, 1,500 00 Special Warrant No 1, 1,200 00	4,200 00	4,177 30	22 70	
		51,550 00	48,821 23	2,728 77	
	XIII.—Miscellaneous.				
	Provincial Secretary's Department.				
249	Advertising	20,000 00	5,401 79	14,598 21	
250	Burial of Indigent Persons	4,000 00	2,256 70	1,743 30	
251	Civil Service Commission, Examiners and Registrar, under "Public Service Act"	1,200 00	1,080 35	119 65	
252	Collecting Archives	6,000 00	5,983 46	16 54	
253	Postage.....Appropriation, $30,000 00 Supplementary, 2,000 00 Special Warrant No. 28, 3,000 00	35,000 00	33,260 66	1,739 34	
	Carried forward	$66,200 00	$47,982 96	$18,217 04	

No. of Vote.	SERVICE.	TOTAL APPROPRIATION	TOTAL EXPENDITURE.	UNEXPENDED.	OVER-EXPENDED.
	Brought forward	$66,200 00	$47,982 96	$18,217 04	
	XIII.—MISCELLANEOUS.—*Continued.*				
	Provincial Secretary's Department. —Concluded.				
254	Provincial Board of Health (other than salaries)	30,120 00	13,822 97	16,297 03	
255	Premiums on Guarantee Bonds	2,000 00	1,256 50	743 50	
256	Royal Commissions ..... Appropriation, $15,000 00 Supplementary, 13,350 00 Special Warrant No. 27, 1,500 00	30,350 00	25,591 23	4,758 77	
257	Stationery	40,000 00	30,332 13	9,667 87	
258	Subscriptions to Newspapers and Periodicals	1,000 00	567 59	432 41	
259	Superannuation ..... Appropriation, $33,606 00 Special Warrant No. 8, 600 00 Special Warrant No. 9, 540 00	34,746 00	33,564 50	1,181 50	
260	Grant to B.C. Regiments	5,000 00	750 00	4,250 00	
261	do City of Phoenix	4,000 00	4,000 00		
262	do City of Rossland	12,000 00	12,000 00		
263	Grant in Aid of Communication with Remote Settlements, Alert Bay to Kingcome Inlet	300 00		300 00	
264	do Kitimat Mail Service	300 00	300 00		
265	Grant to Governors of University of B.C. (conditional)	200,000 00	200,000 00		
266	do Canadian Patriotic Fund (Provincial Branch)	6,000 00	6,000 00		
267	do Boy Scouts (Province)	1,000 00	1,000 00		
268	do Victorian Order of Nurses (Province)	500 00	500 00		
269	do Returned Soldiers' Aid Commission	15,000 00	7,769 49	7,230 51	
269A	Grant towards Cost of Repairs to Sunbury Wharf	100 00	100 00		
269B	Gratuity to the Widow of the late Hon. Ralph Smith	3,000 00	3,000 00		
269C	Funeral Expenses of the late Hon. Ralph Smith	645 00	629 30	15 70	
269D	Gratuity to the Widow of the late J. P. McLeod, equal to 3 month's salary @ $335, $1,005, less $400 already paid on account of Superannuation	605 00	605 00		
	Department of Mines.				
270	Coal-miners' Examinations (allowances to Examiners and Secretaries)	4,000 00	2,814 70	1,185 30	
271	Grant to Western Branch of Canadian Mining Institute	1,000 00	1,000 00		
	Attorney-General's Department.				
272	Destruction of Wolves, Cougars, Coyotes, etc. (bounties and salaries), Appropriation, $35,000 00 Supplementary, 12,500 00 Special Warrant No. 24, 10,000 00 do 26, 15,000 00	72,500 00	72,499 50	50	
273	Game Protection (including temporary salaries, travelling expenses, and incidentals of office)	31,700 00	23,585 07	8,114 93	
274	Departmental Libraries	1,500 00	621 02	878 98	
275	Provincial Library ..... Appropriation, $10,000 00 Supplementary, 3,500 00	13,500 00	13,238 77	261 23	
276	Travelling Libraries	2,000 00	1,833 38	166 62	
277	Motor Traffic Regulation (plates, badges, express, etc.)	6,000 00	4,686 00	1,314 00	
278	Special Surveys ..... Appropriation, $2,500 00 Statutory, 443 68	2,943 68	2,943 68		
279	Contribution to City of Vancouver towards Purchase of certain Lanes in Lot 301, New Westminster District	5,000 00	5,000 00		
	Department of Railways.				
280	Cross-section Books	455 75	55 75	400 00	
281	Fraser River Bridge, New Westminster (salaries, maintenance, and repairs) ..... Appropriation, $20,200 00 Special Warrant No. 10, 8,600 00	28,800 00	24,542 49	4,257 51	
282	Songhees Indian Reserve Improvements	240,000 00	73,751 48	166,248 52	
	Agent General's Office, London.				
283	Salary of Agent General (including clerical assistance, rent of office, advertising, etc., 12 months to 31st March, 1917.) Appropriation, $35,000 00 Supplementery, 7,000 00	42,000 00	35,151 62	6,848 38	
	Immigration and Publicity.				
284	Miscellaneous requirements	15,000 00	5,310 13	9,689 87	
	General.				
285	Advance to Minister of Finance and Agriculture for administration purposes on account of Dominion Trust Co. (in liquidation) as recited in bonds—unpaid at this date—of :— London Guarantee and Accident Co., Ltd. .. $ 50,000 00 Railway Passengers' Assurance Co. 200,000 00	250,000 00		250,000 00	
	Carried forward	$1,169,265 43	$656,805 26	$512,460 17	

No. of Vote.	SERVICE.	Total Appropriation	Total Expenditure.	Unexpended.	Over-expended.
	Brought forward	$1,169,265 43	$656,805 26	$512,460 17	
	XIII.—Miscellaneous.—*Concluded.*				
	General.—Concluded.				
286	Freight, Express, and Cartage	15,000 00	5,173 20	9,826 80	
287	Fuel, Light, Power, and Water	40,000 00	39,911 20	88 80	
288	Interest on Suitors' Fund Deposits	5,000 00	2,648 29	2,351 71	
289	Refunds ... Appropriation, $2,500 00; Supplementary, 6,335 76	8,835 76	7,291 88	1,543 88	
290	Rents ... Appropriation, $5,000 00; Supplementary, 1,000 00	6,000 00	5,164 67	835 33	
291	Telegrams	15,000 00	6,772 31	8,227 69	
292	Telephone Service	22,500 00	18,685 27	3,814 73	
293	Temporary Assistance	25,000 00	24,008 22	991 78	
294	Miscellaneous, not detailed in Estimates	75,000 00	37,444 31	37,555 69	
	Special Warrants.				
	Special Warrants Nos. 3, 5, 13. Workmen's Compensation. $2,000 00; 2,500 00; 2,000 00	6,500 00	6,428 95	71 05	
	do 4. Gratuity to the Widow of the late T. Cunningham	600 00	600 00		
	do 6. Gratuity to the Widow of the late H. F. Langton	303 00	303 00		
	do 7. Gratuity to the Widow of the late R. Howard	288 00	288 00		
	do 11. Gratuity to the Widow of the late Capt. F. McKay	315 00	315 00		
	do 12. Gratuity to the Widow of the late E. H. Kemp	240 00	240 00		
	do 14. Funeral Expenses of the late Hon. E. Dewdney	404 50	404 50		
	do 16. Gratuity to the Widow of the late T. H. Spilling	225 00	225 00		
	do 17. Grant to British Sailor's Relief Fund	1,000 00	1,000 00		
	do 18. Gratuity to the Widow of the late J. Kirkup	590 00	590 00		
	do 21, 33. Purchase of Seed-grain for Farmers ... $3,000 00; 7,000 00	10,000 00	8,519 18	1,480 82	
	do 22. Gratuity to the Widow of the late W. M. Fatt	346 50	346 50		
	do 23. Gratuity to the Widow of the late M. Christian	75 00	75 00		
	Statutory Expenditures.				
	G. S. Powell, Executor J. L. Powell Estate	4 60	4 60		
	R. J. Hornung, Executor B. K. Arndt	17 50	17 50		
	Delinquent School Taxes (under Section 76 of the "Public Schools Act")	7,733 09	7,733 09		
	Gratuity to J. H. Turner, retiring Agent-General for B.C.	5,000 00	5,000 00		
	Pension, J. H. Turner, retiring Agent-General for B.C., 12 months @ $500	6,000 00	6,000 00		
	Workmen's Compensation Board (sec. 31, 1916, Workmen's Compensation Board, for purpose of assisting Board in defraying expenses)	10,000 00	10,000 00		
	Workmen's Compensation Board (sec. 60 "Workmen's Compensation Act"), salaries	3,249 99	3,249 99		
	Kettle Valley Railway (chap. 35, 1912, and chap. 64, 1914)	100,000 00	100,000 00		
	"Coal-miners' Certificates Act" (chap. 42, 1916)	1,264 60	1,264 60		
	"Mines Development Act" (chap. 43, 1916)	48,754 98	48,754 98		
		1,584,512 95	1,005,264 50	579,248 45	
	XIV.—Department of Lands.				
	Forest Branch.				
295	Determination of Lumber Values under "Royalty Act" and Investigation of Timber Measurement (salaries and travelling expenses)	5,000 00	838 50	4,161 50	
296	In aid of Encouraging Lumber Trade (including salaries, travelling expenses, and purchase of material)	50,000 00	30,745 33	19,254 67	
297	Forest Products Investigations (salaries and travelling expenses)	10,000 00	8 50	9,991 50	
298	Forest Protection Fund	150,000 00		150,000 00	
299	Miscellaneous (including transport, salaries of temporary staff, upkeep of boats, incidental expenses, etc.	90,000 00	63,317 59	26,682 41	
300	Timber-testing and Investigation of Wood Products	20,000 00	54 55	19,945 45	
	Carried forward	$325,000 00	$94,964 47	$230,035 53	

No. of Vote.	SERVICE.	TOTAL APPROPRIATION	TOTAL EXPENDITURE.	UNEXPENDED.	OVER-EXPENDED.
	Brought forward	$325,000 00	$94,964 47	$230,035 53	..
	XIV.—DEPARTMENT OF LANDS.—*Concluded.*				
	Lands Branch.				
301	Dry-lands Investigations and Experiments	10,000 00	9,926 95	73 05	
302	Salaries and Expenses of Pre-emption Inspectors	15,000 00	9,752 96	5,247 04	
303	Balance of Compensation to North Pacific Lumber Co., Ltd., *re* Timber Lease, Lot 439, Group 2, New Westminster District	7,500 00	7,500 00		
	Surveyor-General's Branch.				
304	Maps (including lithographing, printing, and purchase of non-departmental maps)	5,000 00	1,369 25	3,630 75	
305	Photo-topographical Surveys	10,000 00	5,850 30	4,149 70	
306	Surveys throughout the Province	100,000 00	94,204 65	5,795 35	
307	Temporary Assistance	4,000 00	492 00	3,508 00	
308	Purchase of Maps	400 00	115 00	285 00	
	Water Rights Branch.				
309	Board of Investigation (including salaries and travelling expenses)	9,000 00	6,467 26	2,532 74	
310	B.C. Hydrographic Survey	5,000 00	4,999 87	13	
311	Collecting Rainfall and Climatic Statistics (including Observers' salaries)	1,000 00	654 00	346 00	
312	Expert Assistance	6,500 00	4,000 00	2,500 00	
313	Public Irrigation Corporations—Surveys and Investigations (including salaries and travelling expenses)	5,000 00	1,083 85	3,916 15	
314	Surveys (general)	40,000 00	31,979 70	8,020 30	
315	Temporary Assistance (including salaries of Office Engineers and Draughtsmen)	22,000 00	12,376 80	9,623 20	
316	Grant to Irrigation Convention at Kamloops	500 00	500 00		
		565,900 00	286,237 06	279,662 94	

DETAILED EXPENDITURE.

STATEMENT showing the Expenditure, as brought to account in the Treasury Department, on account of the Province of British Columbia, for the Fiscal Year ended 31st March, 1917.

[PERIOD FROM 1ST APRIL, 1916, TO 31ST MARCH, 1917.]

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	I.—PUBLIC DEBT.		
	Vote No. 1.—Interest.		
Canadian Bank of Commerce, London	12 mos.' interest @ 4½% on $381,210.00, Loan Act, 1887	17,154 45	
Glyn, Mills, Currie & Co, London	12 " 3 " 9,921,936.00, Loan Acts, 1891, 1893, 1895, 1899, 1902	297,658 08	
Ditto	12 " 4½ " 7,275,000.00, Loan Act, 1914	327,375 00	
Canadian Bank of Commerce, Victoria	12 " 4½ " 3,130,000.00, Loan Act, 1915	140,850 00	
Ditto	6 " 4½ " 2,000,000.00, Loan Act, 1916 (Statutory)	45,000 00	
do	88 days " 4½ " 500,000.00, Loan Act, 1916 (Treasury Bill due March 31st, 1917) (Supplementary)	5,424 66	
do	19 " " 5 " 1,000,000.00, Overdraft (Statutory, section 12, Revenue Act)	2,602 70	
Deputy Min of Finance	12 " 3½ " 59,000.00, Dyking Debentures (Held by Government as Sinking Fund)	2,065 00	
Sundry Banks	12 " 3½ " 386,000.00, Dyking Debentures	13,510 00	
		851,639 89	
	Less Accrued interest on sale of Debentures, Loan Act, 1916, $12,791 13 Interest to 31st December, 1916, charged to P.G.E. Railway on advances under Loan Act, 1916 ..... 11,074 46	23,865 59	
			827,774 30
	Vote No. 2.—Sinking Fund.		
B C Loan Trustees	2¼% on $ 381,210.00, 12 mos.' ending 31st March, 1917, Loan Act, 1887	8,577 22	
do do	1 2,139,141.00, " " " 1891	21,391 40	
do do	1 599,945.00, " " " 1893	5,999 46	
do do	1 2,037,000.00, " " " 1895	20,370 00	
do do	1 1,649,000.00, " " " 1899	16,490 00	
do do	1 3,496,850.00, " " " 1902	34,968 50	
do do	Accrued interest on Sinking Fund Investments, " 1887	6,169 20	
do do	" " (Inscribed Stock) Loans, 1891-3-5-9 and 1902	41,096 59	
Canadian Bank of Commerce, Victoria	2% on $7,275,000.00, 12 mos.' ending 31st March, 1917, Loan Act, 1914	145,500 00	
Ditto	8.14 3,130,000.00, " " 1915	254,715 00	
do	Accrued interest on Sinking Fund Investments, " 1914	237 54	
do	" " 1915	415 71	
		555,930 62	
	Less Transferred from Sinking Fund, Loan 1887 to B.C. Loan Trustees, Deposit Account ..... $ 4,288 61 Transferred from Sinking Fund, Loan 1891-3-5-9 and 1902 to B.C. Loan Trustees, Deposit Account 99,219 36	103,507 97	
			452,422 65
	Vote No. 3.—Premium and Exchange.		
Canadian Bank of Commerce, Victoria	Premium and exchange on remittances for payment of coupons, Loan Acts 1915 and 1916	.....	94 57
	Vote No. 4.—Discount and Commission.		
Brown Shipley & Co, London	Commission on payment of interest, Loan 1887	169 09	
B C Loan Trustees	Commission on sums annually invested	255 27	
do do	Brokerage, etc. on Sinking Fund Investments, Loans, 1887, 1891-3-5-9, and 1902	200 06	
Glyn, Mills, Currie & Co.	Annual commission for inscribing and paying interest on Inscribed Stock	5,820 00	
do do	Stamps and postage on Dividend Warrants	207 86	
Canadian Bank of Commerce, Victoria	Commission on payments of Interest, Loans 1915 and 1916	175 66	
Macneill & Young, Toronto	Discount on sale of $1,180,327.88 being portion of issue of $2,000,000.00 Debentures dated 1st July, 1916 (Discount on balance of $819,672.12 charged to P.G.E. Railway) Loan Act, 1916	100,327 88	107,155 82
			1,387,447 34

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	II.—CIVIL GOVERNMENT (SALARIES).		
	Vote No. 5.—Lieutenant-Governor's Office.		
Muskett, H J	Private Secretary ..... 12 months @ $175	.....	2,100 00
	Vote No. 6.—Premier's Office.		
Bowser, Hon W J	Premier ..... 7 mos. 23 d. @ $250	1,941 66	
Brewster, Hon H C	do ..... 4 " 7 d. 250	1,058 34	
Gosnell, R E	Secretary to Premier ..... 9 " 216.66	1,949 94	
Baer, W W	do ..... 4 " 7 d. 150	634 99	
Buckett, G V	Junior Clerk ..... 12 months @ $65, less military pay 407.35	372 65	
Mullaly, H M	Stenographer ..... 4 mos. 7 d. 75	317 50	
			6,275 08
	Vote No. 7.—Provincial Secretary's Department.		
McGuire, Hon A G	Provincial Secretary ..... 5 mos. 18 d. @ $500	2,799 99	
MacLean, Hon J D	do ..... 4 " 1 d. 500	2,016 66	
Reddie, A C	Deputy Provincial Secretary ..... 12 months 280	3,360 00	
Walker, P	Chief Clerk ..... 12 " 176	2,112 00	
Maynard, F G	Postal Clerk ..... 12 " 117	1,404 00	
Lowe, J C	Clerk ..... 12 months @ $102, less military pay 355	869 00	
Smillie, W	do ..... 12 months 50	600 00	
Fergusson, J H W	Stenographer ..... 12 " 50	600 00	
Jesse, C	do ..... 12 days 2.50	30 00	
King, W	do ..... 9 months @ $85; 17 " 2.50	807 50	
Hurst, M	do ..... 14 " 2.50	35 00	
Warren, P	do ..... 4½ " 2.50	11 25	
	Total, $14,645.40		
	Provincial Board of Health.		
Young, H E	Secretary ..... 10 months @ $350	3,500 00	
DeGrey, F	Acting-Secretary ..... 2 " 100	200 00	
do	Sanitary Inspector ..... 12 " 175	2,100 00	
Avison, H	Assistant Inspector ..... 12 " 115	1,380 00	
Swan, B	School Nurse ..... 1 " 90	90 00	
Locke, N	do ..... 8½ " 90	765 00	
Miller, M	Deputy Registrar, Births, Deaths, and Marriages ..... 12 " 112	1,344 00	
Meakin, R A	Clerk.....(3 months arrears) 15 months @ $96, less military pay 455.35	946 25	
French, H B	do ..... 12 months 90	1,080 00	
McNaught, M	do ..... 12 " 87	1,044 00	
Brown, K	Junior Clerk ..... 12 " 65	780 00	
Park, J R	Clerk ..... 10½ " 60	630 00	
Gillingham, H E	do ..... 12 months @ $65, less military pay 365	415 00	
	Total $14,274.25		
	Provincial Museum.		
Kermode, F	Director ..... 12 months @ $182.66	2,192 00	
Anderson, E M	Taxidermist ..... 6 " 3 d. 131	798 70	
Whittaker, S	Assistant Taxidermist ..... 12 " 109	1,308 00	
Andrew, W A	Stenographer ..... 10 " 65	650 00	
Park, R W	Attendant ..... 12 " 75	900 00	
Marsden, G	Janitor..... 10 months @ $80; superannuation, 2 " 40	880 00	
Hendry, H. J	Stenographer ..... 2½ " 60	150 00	
	Total, $6,878.70		
	Provincial Home, Kamloops.		
McLean, H	Superintendent ..... 12 months @ $90	1,080 00	
McLean, M	Matron ..... 12 " 60	720 00	
Inman, A	Nurse and Attendant ..... 12 " 70	840 00	
Walkley, G	Orderly ..... 12 " 65	780 00	
Hannis, A	do ..... 12 " 60	720 00	
Hearn, J W	Cook ..... 1½ " 70	105 00	
Phillips, J	do ..... 4 " 70	280 00	
Lockie, G	Day Engineer.....11½ months @ $75, less military pay 189	673 50	
Bearcroft, W O	Night Engineer.....6 months, 20 days @ $70; 5 mos. 10 d. 65	813 30	
Stapleton, H	Nightwatchman ..... 12 months 60	720 00	
Wells, C H	Cook ..... 5 mos. 24 d. 70	406 00	
	Total, $7,137.80		
	Carried forward.....	.....	8,375 08

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		8,375 08
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	***Vote No. 7.—Provincial Secretary's Department.*—Continued.**		
	Printing Office.		
Cullin, W H	King's Printer and Controller of Stationery ... 12 months @ $218.33	2,620 00	
Richdale, W H	Chief Clerk ... 12 " 160	1,920 00	
McCulloch, J L	Clerk ... 12 " 128	1,536 00	
Cudlip, P G	do ... 8 " 85	680 00	
Arthurs, F L	do ... 12 months @ $85, less military pay 243	777 00	
Thompson, T J	Proof-reader ... 12 months 130	1,560 00	
Hood, G	Assistant Proof-reader ... 12 " 116	1,392 00	
Carthew, I G	Copy-holder ... 12 " 73	876 00	
Earle, W A	Storekeeper ... 12 " 122	1,464 00	
Mallandaine, C	Mail Clerk ... 12 " 107	1,284 00	
Mahoney, J	Packer ... 12 months @ $75, less military pay 274	626 00	
Pottinger, J	Foreman of Composing-room ... 12 " 155	1,860 00	
White, R	Chief Linotype Operator ... 12 " 132.50	1,590 00	
Lefevre, B E	Linotype Operator ... 12 " 122.50	1,470 00	
Dunn, N	do ... 12 " 122.50	1,470 00	
Gilchrist, N	do ... 12 " 122.50	1,470 00	
Burgess, T A	do ... 12 " 122.50	1,470 00	
Melville, W	Machinist ... 12 " 135	1,620 00	
Partridge, F	Job Printer ... 12 " 122.50	1,470 00	
Butler, R	Compositor ... 12 " 122.50	1,470 00	
Rowland, F	do ... 12 " 122.50	1,470 00	
Shakespeare, F	do ... 12 " 120.50	1,446 00	
Baines, W W	do ... 12 " 120.50	1,446 00	
Ballantyne, D T	do ... 12 " 115.50	1,386 00	
Borde, L H	do ... 12 " 115.50	1,386 00	
Hall, J	do ... 12 " 115.50	1,386 00	
Johnson, A E	do ... 12 " 115.50	1,386 00	
Fatt, W M	do ... 9 months 4 days @ $115.50, less military pay 558	496 40	
Curtis, H W	do ... 12 months 115.50	1,386 00	
Belford, J	Apprentice ... 12 months @ $75, less military pay 304	596 00	
Clark, W H	Foreman of Press-room ... 12 months 155	1,860 00	
Neill, G	Pressman ... 12 " 118	1,416 00	
Wilby, J	do ... 12 " 118	1,416 00	
Scott, W T	do ... 12 " 112.50	1,350 00	
Clyde, F	do ... 12 " 112.50	1,350 00	
Malcolm, C R	do ... 12 " 112.50	1,350 00	
Price, H	do ... 12 " 112.50	1,350 00	
Wales, P	Apprentice ... 12 " 90	1,080 00	
Tugwell, C	Folder and Stitcher ... 12 " 55	660 00	
Andrews, J	Packer ... 9 " 75	675 00	
	Total, $53,516.40		
	Bookbinding Branch.		
Williams, R. T	Foreman of Bindery ... 12 months @ $155	1,860 00	
Janes, C E	Finisher ... 12 " 110	1,320 00	
Carr, G S	Paper-ruler ... 12 months @ $107, less military pay 492.75	791 25	
Laing, W	Forwarder ... 12 months 100	1,200 00	
Culross, I	do ... 12 " 100	1,200 00	
Newberry, J	do ... 12 " 100	1,200 00	
Hughes, H P	do ... 12 " 100	1,200 00	
Wilson, W J W	do ... 12 " 100	1,200 00	
Emerton, A W	do ... 12 " 100	1,200 00	
Boyd, J J	do ... 10 " 100	1,000 00	
Cowherd, H J	do ... 12 months @ $100, less military pay, 365	835 00	
Anderson, H S	do ... 12 months 100	1,200 00	
Davison, E	do ... 12 " 100	1,200 00	
Webb, C N	Stock-cutter ... 12 " 100	1,200 00	
Merrill, K	Forewoman ... 12 " 75	900 00	
Harte, E E	Assistant Forewoman ... 12 " 65	780 00	
Merrill, M	Folder and Sewer ... 12 " 50	600 00	
Turner, N	do ... 12 " 50	600 00	
Pomeroy, K	do ... 12 " 50	600 00	
Holmes, M	do ... 11 " 24 d. 50	589 50	
Knight, M	do ... 12 " 50	600 00	
Wilson, G	do ... 3 " 8 d. 50	161 50	
Lawless, L	do ... 12 " 50	600 00	
Webb, B	do ... 1 " 50	50 00	
Henley, M	do ... 12 " 50	600 00	
	Total, $22,687.25		
	Carried forward		8,375 08

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		8,375 08
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 7.—Provincial Secretary's Department.—Continued.		
	Mental Hospitals.		
	NEW WESTMINSTER.		
Doherty, C E	Medical Superintendent ....12 months @ $250, less military pay $1,460	1,540 00	
Steeves, H C	2nd Medical Superintendent....12 months @ 175	2,100 00	
Crease, A L	Temporary Assistant Superintendent....12 " 175	2,100 00	
Cambridge, T H	Bursar....12 " 110	1,320 00	
McCabe, M H	Assistant Bursar....12 " 90	1,080 00	
Gooding, C H	Junior Clerk....12 " 80	960 00	
	Total, $9,100		
	ESSONDALE.		
McKay, J G	Medical Superintendent....12 months @ $250	3,000 00	
Freeze, D D	Assistant Medical Superintendent...12 months @ $150, less military pay 1,095	705 00	
Macgowan, G S	Bursar....12 months 169	2,028 00	
Farrant, G	Assistant Bursar....12 months @ $100, less military pay 365	835 00	
Fletcher, C	do ....12 months 100	1,200 00	
Strong, H W	Clerk....12 months @ $80, less military pay 360	600 00	
	Total, $8,368		
	Education Office.		
Robinson, A	Superintendent of Education .... 12 months @ $318.33	3,820 00	
Cruickshank, G	Chief Clerk .... 12 " 194.33	2,332 00	
Cruickshank, G E	Clerk .... 12 " 96	1,152 00	
Greig, K	Junior Clerk .... 12 " 55	660 00	
Watson, L G	Stenographer .... 12 " 75	900 00	
Hamilton, C	do .... 12 " 60	720 00	
Monteith, E M	do .... 12 " 50	600 00	
	Total, $10,184		
	Free Text-book Branch.		
Wilson, D	Officer in Charge .... 12 months @ $230	2,760 00	
Walker, B G	Assistant Officer in Charge .... 12 months @ $102, less military pay 398.50	825 50	
Irwin, V G	Clerk .... 12 months 75	900 00	
Bryant, D A	Stenographer .... 12 " 65	780 00	
Flinton, W M	do .... 12 " 50	600 00	
	Total, $5,865.50		
	Industrial Education.		
Deane, G H	Assistant to Supt. and Supervisor of Technical Education.. 12 months @ $260	3,120 00	
Gibson, J W	Director of Agricultural Education .... 12 " 250	3,000 00	
Kyle, J	Organizer of Industrial and Technical Education.... 12 " 225	2,700 00	
Readey, J C	District Supervisor of Agricultural Education .... 12 " 150	1,800 00	
Appleby, E C	Stenographer .... 12 " 50	600 00	
Mitchell, W C	Manual Training Instructor .... 4 " 150	600 00	
Moule, M C	Domestic Science Mistress .... 4 " 125	500 00	
	Total, $12,320		
	Inspection of Schools.		
Sullivan, A	Inspector of High Schools .... 12 months @ $225, less military pay $486	2,214 00	
Gillis, J D	Inspector of Schools .... 12 months @ 221.66	2,660 00	
Miller, A E	do .... 12 " 216.66	2,600 00	
Pollock, J T	do .... 12 " 211.66	2,540 00	
May, W H M	do .... 12 " 203.33	2,440 00	
Winsby, N	do .... 12 months @ $195, less military pay 1,825	515 00	
Denton, V L	do .... 12 months 195	2,340 00	
Bruce, L J	do .... 12 " 185	2,220 00	
Gower, G H	do .... 12 " 185	2,220 00	
DeLong, J B	Inspec. of Schools & Temporary Inspec. of High Schools. 5 m. @ $185, 7 m. 200	2,325 00	
Martin, J	Inspector of Schools .... 12 months 185	2,220 00	
Anstey, A	do .... 12 " 185	2,220 00	
Lord, A R	do .... 12 " 175	2,100 00	
Dove, A J	do .... 12 " 175	2,100 00	
	Total, $30,714		
	Carried forward		8,375 08

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		8,375 08
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 7.—Provincial Secretary's Department.—Concluded.		
	Provincial Normal Schools.		
	VANCOUVER.		
Burns, W	Principal ... 12 months @ $250	3,000 00	
Murphy, E H	Assistant Master ... 12 months @ $243.33, less military pay,	486	2,433 94
Spouse, J	do ... 12 " 233.33, "	363	2,436 90
MacKenzie, H H	do ... 12 months	200	2,400 00
Weston, W P	Drawing Master ... 12 "	175	2,100 00
MacLean, H B	Assistant Master ... 7 "	200	1,400 00
Burpee, L A	Assistant Mistress ... 12 "	145	1,740 00
McNiven, C	do ... 8 "	140	1,120 00
Coney, E M	Music Mistress ... 12 "	115	1,380 00
Bowyer, J	Engineer and Janitor ... 12 months @ $75, less military pay,	492.75	407 25
Birmingham, H	Assistant Janitor ... 12 months	70	840 00
Loree, A M	Librarian and Stenographer ... 12 "	60	720 00
Coerolt, H	Gardener ... 12 months @ $75, less military pay,	365	535 00
Robins, D	Assistant Gardener ... 4 months 10 d.	60	259 35
Holmes, A	do ... 7 " 9 d.	60	437 40
Twa, T H	Temporary Engineer ... 12 "	75	900 00
Abbott, S L	Gardener ... 12 "	75	900 00
	Total, $23,009.84		
	VICTORIA.		
MacLaurin, D L	Principal ... 12 months @ $250	3,000 00	
Robinson, D M	Assistant Master ... 12 "	233.33	2,800 00
MacLean, H B	do ... 5 "	200	1,000 00
Dunnell, H	Drawing Master and Technical Instructor ... 12 "	206.66	2,480 00
Denne, L	Domestic Science Mistress ... 12 "	130	1,560 00
Morris, I	Music Mistress ... 3 months @ $75; 9 "	115	1,260 00
Scanlon, K	Principal, Model School ... 12 "	135	1,620 00
Barron, I M F	Teacher, " ... 12 "	100	1,200 00
Williams, D F	Engineer ... 12 "	100	1,200 00
Collie, R	Assistant Engineer ... 12 "	75	900 00
McMichael, W	Janitor ... 12 "	70	840 00
	Total, $17,860		244,936 22
	Vote No. 8.—Department of Mines.		
Campbell, Hon L A	Minister of Mines ... 7 mos. 23 d. @ $500	3,883 33	
Sloan, Hon W	do ... 4 " 2 d.	500	2,033 33
Bowron, L	Clerk and Secretary to Minister ... 8 " 17 d.	107	914 68
Dunn, R	do ... 3 months	150	450 00
Tolmie, R F	Deputy Minister of Mines ... 12 "	285	3,420 00
Robertson, W F	Mineralogist and Provincial Assayer ... 12 "	343.33	4,120 00
Whittaker, D E	Assistant Assayer and Public Analyst ... 12 "	160.66	1,928 00
Galloway, J D	Assistant Mineralogist ... 12 "	158.33	1,900 00
Stanton, H	Chief Clerk and Gold Commissioner ... 12 "	190	2,280 00
Nation, H	Clerk ... 6 months @ $122, less military pay	549	183 00
Andrews, M	do ... 11 months	65	715 00
Steenson, R J	Junior Clerk ... 12 "	55	660 00
Norman, S	Caretaker and Janitor ... 12 "	95	1,140 00
Graham, T	Chief Inspector of Metalliferous and Coal Mines ... 12 "	355	4,260 00
Strachan, R	Inspector ... 12 "	195	2,340 00
Newton, J	do ... 12 "	195	2,340 00
Williams, T H	do ... 12 "	175	2,100 00
Devlin, H	do ... 12 "	160	1,920 00
O'Brien, G	do ... 12 "	150	1,800 00
McMillan, J H	do ... 11½ "	150	1,725 00
O'Brien, C	Instructor and Caretaker, Mine-rescue and Training Stations 12 "	100	1,200 00
Stewart, J D	do " 12 "	100	1,200 00
Michell, D	Instructor of First-aid Work at Mines ... 12 "	110	1,320 00
McGregor, J	Inspector of Metalliferous and Coal Mines ... 12 "	210	2,520 00
Kitto, G B	Clerk ... 6 months @ $83.33; 4 months @ $90; 2 "	122	1,103 98
Brethour, M A	Stenographer ... 1 "	60	60 00
			47,516 32
	Vote No. 9.—Department of Finance.		
	Treasury.		
Stewart, Hon A	Minister of Finance ... 4 mos. 5 d. @ $500	2,083 33	
Smith, Hon R	do ... 2 " 14 d.	500	1,247 61
Brewster, Hon H C	do ... 1½ months	500	750 00
Goepel, W J	Deputy Minister of Finance ... 12 "	297.50	3,570 00
Runnalls, W U	Inspector of Trust Companies ... 12 "	220	2,640 00
	Carried forward		292,452 54

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		292,452 54
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 9.—Department of Finance.—Concluded.		
	Treasury.—Concluded.		
Huckell, E	Stenographer to Inspector of Trust Companies ... 12 months @ $ 60	720 00	
Graves, W E	Chief Clerk ... 12 " 175	2,100 00	
Morley, H A S	Clerk ... 12 " 200	2,400 00	
Finlayson, H M	do ... 12 " 147	1,764 00	
Ward, F M	do ....10 months 5 days @ $107; allowance while on military duty, 1 month 16 days @ $80, less military pay $76.50	1,108 66	
Howard, R	Clerk ... 5 months 3 days @ $96, less military pay $312	177 60	
Hanson, R E	do ... 12 months 96	1,152 00	
Keatinge, W H	do ... 12 months $96, less military pay 584	568 00	
Harding, H L	do ... 10 months 7 d. 90	920 30	
Anderson, W	do ... 12 " 86	1,032 00	
Wilkinson, M	Stenographer ... 12 " 60	720 00	
Telfer, W J M	Secretary to Minister ... 3 " 12 d. 90	305 25	
Brown, A C	do ... 2 " 150	300 00	
Steele, E	Stenographer ... 1 " 1 d. 55	56 95	
	Total, $23,615.70		
	Department of Insurance.		
Gunther, E F	Superintendent of Insurance ... 12 months @ $416.66	5,000 00	
Armstrong, R	Clerk ... 12 " 90	1,080 00	
Kenworthy, I E	Stenographer ... 11 " 23 d. 60	706 00	
	Total, $6,786		
	Audit Office.		
Allison, W	Auditor-General ... 12 months @ $350	4,200 00	
Howard, H N	Chief Clerk ... 12 " 170	2,040 00	
Nairne, C R	Clerk ... 12 " 173.33	2,080 00	
Durand, J E	do ... 12 " 128	1,536 00	
Jesse, H A	do ... 12 " 127	1,524 00	
Wyllie, A H	do ... 12 months @ $117, less military pay	1,039 00	
Tyrer, A S	do ... 12 months 90	1,080 00	
Wilmot, R P	do ... 12 " 90	1,080 00	
Mayne, T H	do ... 12 " 90	1,080 00	
Francis, L	Junior Clerk ... 11 " 30	330 00	
Marboeuf, L	Stenographer ... 12 " 60	720 00	
Van Sicklin, M	do ... 12 " 60	720 00	
Fletcher, S A	Travelling Auditor ... 12 " 210	2,520 00	
Wright, H N	do ... 12 " 135	1,620 00	
	Total, $21,569		
	Surveyor of Taxes and Inspector of Revenue.		
McKilligan, J B	Surveyor and Inspector ... 12 months @ $270	3,240 00	
Armstrong, M F	Stenographer ... 12 " 60	720 00	
	Total, $3,960		
	Assessor's Office, Victoria.		
Leason, E E	Assessor ... 12 months @ $180.66	2,168 00	
Carter, W O	Clerk ... 12 " 122	1,464 00	
Josephs, W W	do ... 11 months 29 days @ $96, less military pay 180	965 80	
Flett, H S	do ... 12 months 81	972 00	
	Total, $5,569.80		
	Bureau of Information.		
McGaffey, E	Secretary to Bureau ... 12 months @ $250	3,000 00	
Fleury, F J	Clerk ... 12 months @ $121, less military pay 492.75	959 25	
Boond, S	do ... 12 " 96, " 365	787 00	
Kelly, J B	do ... 3 months @ $75; 5 months 90	675 00	
Ward, J L	Junior Clerk ... 12 months @ $45, less military pay 365	175 00	
Gosse, S M	Stenographer ... 12 months 55	660 00	
Hart, H W	Clerk ... 12 " 75	900 00	
	Total, $7,156.25		68,656 75
	Carried forward		361,109 29

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		361,109 29
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 10.—Department of Agriculture.		
Manson, Hon W	Minister of Agriculture, 5 mos. 19 d. @ $500	2,816 66	
Oliver, Hon J	do, 4 " 2 d. 500	2,033 30	
Scott, W E	Deputy Minister of Agriculture, 12 months 260	3,120 00	
Bonavia, W J	Statistician and Secretary, 12 " 150.33	1,804 00	
Tweddle, A B	Assistant Statistician, 12 " 127	1,524 00	
McDonald, W T	Live Stock Commissioner, 12 " 200	2,400 00	
Hopkins, S H	Assistant Live Stock Commissioner, 12 " 125	1,500 00	
Winslow, R M	Provincial Horticulturist and Inspector of Fruit Pests, 12 " 200	2,400 00	
Middleton, M S	Assistant Horticulturist, 12 " 136.66	1,640 00	
Hoy, B	" 12 " 136.66	1,640 00	
Thornber, H	" 12 " 136.66	1,640 00	
French, P E	" 12 " 136.66	1,640 00	
Robertson, W H	" allowance while on military duty, 12 " 35	420 00	
Tomlinson, A H	" 1 " 133.33	133 33	
Neale, A R	" 1 " 100	100 00	
Terry, J R	Instructor in Poultry-raising, 12 " 143.33	1,720 00	
Upton, H E	Assistant Instructor in Poultry-raising, 12 " 125	1,500 00	
Lyne, W H	Inspector of Imported Fruit and Nursery Stock, 12 " 151.66	1,820 00	
Gavet, D	Assistant Inspector of Imported Fruit and Nursery Stock, 12 " 132.66	1,592 00	
Graham, W J	do " " 12 " 100	1,200 00	
Knight, Dr A	Veterinary Inspector, 12 " 153.33	1,840 00	
White, Dr S A K	Assistant Veterinary Inspector, 12 " 148.33	1,780 00	
Alton, Dr W W	do " 12 " 148.33	1,780 00	
Ilsley, Dr B R	do " 12 " 148.33	1,780 00	
Rive, H	Dairy Instruc. and Insp., allowance while on military duty, 12 " 25	300 00	
Wiancko, T A F	Assistant Instructor and Inspector, 12 " 125	1,500 00	
Eastham, J W	Plant Pathologist and Entomologist, 12 " 180	2,160 00	
Walker, H E	Agriculturist, 12 " 133.33	1,600 00	
English, H O	Soil and Crop Instructor, 12 " 125	1,500 00	
McTaggart, W E	Markets Commissioner, 12 " 125	1,500 00	
Martin, G B	Clerk, 12 " 133	1,596 00	
Foulkes, G L	do, 12 months @ $106, less military pay 365	907 00	
Stewart, G H	do, 1 month @ $50; 11 months 75	875 00	
Pilner, G	do, 12 " 90	1,080 00	
Mitchell, R E	do, 12 " 90	1,080 00	
Rothwell, G S	do, 12 " 90	1,080 00	
Flett, E L	Clerk and Typist, 12 " 86	1,032 00	
Whittaker, B	Clerk, 8 " 22 d. 60	522 60	
Pearson, C P L	do, 3 " 75	225 00	
Buckett, J H	Junior Clerk, 12 " 30	360 00	
Brooking, M	Clerk and Typist, Vancouver, 12 " 92	1,104 00	
O'Brien, F G	Stenographer, 8 " 20 d. 65	564 00	
Warren, P	do, 3 " 5 d. 50	158 05	
Williams, E	do, 12 " 60	720 00	
Babington, V F	do, 12 " 60	720 00	
Patchett, M M	do, 12 " 60	720 00	
Shotbolt, A H	General Assistant, 12 " 100	1,200 00	
Casey, E	Clerk, allowance while on military duty 12 " 20	240 00	
			62,566 94
	Vote No. 11.—Department of Lands.		
	Lands Branch.		
Ross, Hon W R	Minister of Lands, 7 mos. 23 d. @ $500	3,883 33	
Pattullo, Hon T D	do, 4 " 1 d. 500	2,016 66	
Child, R F	Clerk to Minister of Lands, 12 months @ $147, less military pay 365	1,399 00	
Renwick, R A	Deputy Minister of Lands, 9 months 14 d. 298.33	2,819 70	
Naden, G R	do, 2 " 17 d. 298.33	760 30	
Turnbull, W	Secretary, 1½ " 150	225 00	
Smith, J G	Statistician, 12 months @ $183.33, less military pay 1,095	1,104 96	
Cathcart, H	Supervisor of Inspection Branch, 12 months 245	2,940 00	
Hutchison, J	Inspector of Pre-emptions, 12 " 123.66	1,484 00	
Rant, W J	Book-keeper, 12 " 136	1,632 00	
Taylor, N	Clerk, 12 months @ $160.33, less military pay 77	1,846 97	
Turner, W A	do, 12 months 135	1,620 00	
Tuthill, D H R	do, 12 " 134	1,608 00	
Brown, W S	do, 12 " 112	1,344 00	
Hopper, C E	do, 12 " 106	1,272 00	
Briggs, A J	do, 12 " 105	1,260 00	
Blackwood, T	do, 12 " 102	1,224 00	
McLaren, D B	do, 12 " 96	1,152 00	
Tait, J F	do, 12 " 96	1,152 00	
Earle, E M	do, 12 " 86	1,032 00	
Henshall, H	Junior Clerk, 12 " 65	780 00	
Forrester, T P	do, 12 months @ $65, less military pay 454.50	325 50	
Best, L E	Stenographer, 6 months 14 d. 55	353 85	
McGill, V	do, 12 " 60	720 00	
Gill, I A	Clerk, 1 " 20 d. 75	128 57	
	Total, $34,083.84		
	Carried forward		423,676 23

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	423,676 23
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	***Vote No. 11.—Department of Lands.*—Continued.**		
	Forest Branch.		
Grainger, M A	Chief Forester ... 12 months @ $285	3,420 00	
Lafon, J	Assistant Forester ... 12 " 266.66	3,200 00	
Benedict, R E	do ... 12 " 266.66	3,200 00	
Barclay, S W	Acting Assistant Forester ... 12 " 191.33	2,296 00	
Gilmour, J D	do ... 8 " 15 d. 175	1,484 68	
Van Dusen, W J	do ... 12 " 166.66	2,000 00	
Robinson, H K	District Forester ... 12 months @ $225, less military pay 730	1,970 00	
McKay, G D	do ... 12 months 210	2,520 00	
Irwin, H S	do ... 12 " 150	1,800 00	
Bonney, P S	do ... 1 m. @ $133.33; allowance while on military duty, 9 m. 60	673 33	
Prince, G H	do ... 12 days 133.33	53 33	
Marvin H G	do ... 12 months 133.33	1,600 00	
Murray, H B	do ... 12 " 133.33	1,600 00	
Allen, R E	do ... 12 " 133.33	1,600 00	
Le Mare, P	do ... 12 " 125	1,500 00	
Prowd, E B	Acting District Forester ... 1 month @ $116.66; 11 " 125	1,491 66	
Melrose, G P	do ... 12 " 116.66	1,400 00	
Mumford, A G	Forest Assistant and Cruiser ... 12 months @ 133.33, less military pay 208	1,391 95	
Mills, C R	do ... 12 months 116.66	1,400 00	
Shives, A K	do ... 10 " 9 d. 116.66	1,200 23	
Flumerfelt, W R	do ... 7 " 102	714 00	
Moore, W	do ... 12 " 96	1,152 00	
Smith, H H	do ... 12 " 96	1,152 00	
Bolland, W	do ... 12 " 96	1,152 00	
Bryant, A L	Supervisor of Scalers ... 12 " 166.66	2,000 00	
Galbraith, D A	Scaler ... 12 " 132	1,584 00	
Marshall, J F	do ... 12 " 132	1,584 00	
Dunning, A E	do ... 12 " 132	1,584 00	
Garrett, A	do ... 11 " 23 d. 132	1,549 93	
Hillis, J M	do ... 12 " 132	1,584 00	
McKay, G R	do ... 12 " 132	1,584 00	
McRae, J A	do ... 12 " 132	1,584 00	
Thomas, E R	do ... 12 " 132	1,584 00	
McLean, J A	do ... 12 " 132	1,584 00	
McLeod, J	do ... 12 " 117	1,404 00	
McPhee, J	do ... 12 " 117	1,404 00	
Cameron, A	do ... 12 " 107	1,284 00	
Durrell, J N	do ... 12 " 100	1,200 00	
Henry, T	do ... 12 " 100	1,200 00	
Bayle, G J	do ... 1 " 3 d. 100	110 71	
Kelly, W L	do ... 3 months @ $90; 183 days 3.50	910 50	
Kennedy, A T	do ... 10 months 108.33	1,083 30	
Trinder, R	Check Scaler ... 12 " 125	1,500 00	
Milroy, J	do ... 12 months @ $100, less military pay 657	543 00	
Hoy, J	Clerk ... 12 months 182.66	2,192 00	
Cuppage, G V	do ... 12 " 161.33	1,936 00	
McKay, J	do ... 12 " 140	1,680 00	
Pite, N F	do ... 12 " 121	1,452 00	
Reive, N	do ... 11 " 102	1,122 00	
Dark, P T	do ... 12 months @ $102, less military pay 274	950 00	
Nairne, R	do ... 2 months 102	204 00	
Langton, H F	do ... 4 " 101	404 00	
Fee, J B	do ... 12 " 101	1,212 00	
Fox, E P	do ... 12 months @ $96, less military pay 90	1,062 00	
Bridge, W T	do ... 7 " 90; 4½ months 50	855 00	
Beckwith, W S	do ... 12 " 95	1,140 00	
Ross, R	do ... 12 " 90	1,080 00	
Brown, W J W	do ... 12 " 90	1,080 00	
McKay, F N	do ... 12 " 90	1,080 00	
Carlin, F P	do ... 4 " 90	360 00	
Taylor, R M	do ... 11 " 90	990 00	
Ball, G R A	do ... 12 months @ $90, less military pay 365	715 00	
Corey, H P	do ... 7 " 80; 26 days 90	635 48	
Renwick, H T	do ... 12 months 75	900 00	
York, L S V	do ... 12 " 75	900 00	
Sayer, W R	do ... 11 " 24 d. 90	1,062 00	
Boss, J	do ... 19 days 90	55 16	
Brett, R T	do ... 11 months 20 d. 75	875 00	
Campbell, D N	do ... 12 " 75	900 00	
Duff, A	do ... 11 " 7 d. 75	841 93	
Carey, W	do ... 8 " 6 d. 75	614 50	
Gibbs, J H	do ... 4 " 8 d. 75	320 42	
Taylor, T	do ... 1 " 7 d. 75	93 75	
Crew, H O	do ... 6 " 75	450 00	
Macfarlane, M E R	do ... 7 " 75	525 00	
Jackson, F A	do ... 12 " 75	900 00	
Branch, B W	do ... 10 " 15 d. 75	786 29	
	Carried forward	.....	423,676 23

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		423,676 23
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 11.—Department of Lands.—Continued.		
	Forest Branch.—Concluded.		
Elliott, M I	Clerk, 7 mos. 10 d. @ $ 60	439 35	
Wood, H V	do allowance while on military duty, 12 " 50	600 00	
Eddie, J	do 12 months @ $45, less military pay 365	175 00	
Hudson, D W	do 5 " 16 d. 60	330 97	
Ferris, C	Messenger, 12 months @ $35, less military pay 365	55 00	
Thomas, W L	Draughtsman, 12 months 116	1,392 00	
Best, L E	Stenographer, 5 " 55	275 00	
McLennan, B	do 2 " 17 d. 55	140 16	
McDonald, M S	do 12 " 75	900 00	
Mathieson, L	do 12 " 65	780 00	
Pennell, E	do 12 " 65	780 00	
Jagers, V	do 12 " 65	780 00	
Cuppage, E	do 6 " 60	360 00	
Fisher, E M	do 8 " 9 d. 60	497 42	
Howe, E	do 12 " 60	720 00	
Leckie, I	do 7 " 60	420 00	
Connell, D M	Ranger, 6 " 116.66	699 96	
Loveland, W F	do 6 months 29 days @ $116.66, less military pay 332	480 73	
Watson, G B	do 7 months 116.66	816 62	
McLean, J K	do 5 " 116.66	583 30	
Hart, J C	do 7 " 116.66	816 62	
Black, W	do 12 months @ $116.66, less military pay 492.75	907 17	
McLean, A H	do 6 months 114	684 00	
Heath, E F W	do allowance while on military duty, 12 " 30	360 00	
Haddon, C J	do 12 months @ $108.33, less military pay 365	934 96	
Frost, C E	do 12 " 108.33, " 584	715 96	
Stilwell, J E	do 2 months 108.33	216 66	
Mix, C A	do 5 " 28 d. 108.33	639 50	
Thomas, H H	do 6 " 108.33	649 98	
McCorkindale, A	do 6 " 108.33	649 98	
Keyes, G	do 6 " 108.33	649 98	
Lathom, J	do 2 " 15 d. 108.33	269 08	
Sharkey, P	do 5 " 108.33	541 65	
Townshend, G E	do 1 " 108.33	108 33	
Price, J S	do 6 " 108.33	649 98	
Sandison, W L	do 1 " 108.33	108 33	
Nelson, H S	do 6 " 108.33	649 98	
Black, A M	do 6 " 108.33	649 98	
MacRae, F	do 6 " 108.33	649 98	
Dover, G	do 1 " 108.33	108 33	
Edwards, F B	do 12 months @ $100, less military pay 730	470 00	
MacPherson, D C	do 6 months 100	600 00	
Chettleburgh, F B	do 6 " 100	600 00	
Holliday, W	do 1 month @ $100; 5 " 60	400 00	
Willett, B	do 6 " 90	540 00	
Yuill, J S	do 5 " 22 d. 100	570 00	
Chestnut, R H	do 6 " 90	540 00	
Stuart, R V	do 6 " 90	540 00	
McClusky, J W	do 6 " 90	540 00	
Mills, R E	do 6 " 90	540 00	
MacDonald, J G	do 5 " 100	500 00	
Muir, W L	do 1 month @ $100; 4 " 60	340 00	
Miller, A	Acting-Ranger, 4 " 12 d. 100	438 71	
Pym, F	do 1 " 3 d. 100	110 71	
	Total, $125,121.53		
	Surveyor-General's Branch.		
	GENERAL STAFF.		
Dawson, G H	Surveyor-General, 10 months @ $366.66	3,666 60	
Umbach, J E	Chief Draughtsman and Acting Surveyor-Gen. 10 m. @ $260; 2 " 300	3,200 00	
Bamford, T	Draughtsman, 12 " 183.33	2,200 00	
Goddard, G P	do 12 months @ $164.66, less military pay 77	1,898 91	
Morris, F O	do 12 months 156.33	1,876 00	
Robbins, W A	do 12 " 141	1,692 00	
Stokes, W H	do 12 " 139.33	1,672 00	
Philips, F M	do 12 " 131	1,572 00	
Golder, H L	do 8 " 19 d. 131	1,128 30	
Davis, H	do 12 " 131	1,572 00	
Elliott, W	do 12 " 131	1,572 00	
Huggard, J	do 9 " 13 d. 131	1,233 94	
Lawrie, A	do 12 " 131	1,572 00	
Simmons, R H	do 12 " 126	1,512 00	
Tildesley, C E	do 1 " 30 d. 124	244 00	
Bennet, A	do 12 months @ $121, less military pay 365	1,087 00	
de Mellin, H	do 11 " 121, " 1,018.40	312 60	
	Carried forward		423,676 23

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	423,676 23
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 11.—Department of Lands.—Concluded.		
	Surveyor-General's Branch.—Concluded.		
	GENERAL STAFF.—*Concluded.*		
Keys, J	Draughtsman ... 12 months @ $111	1,332 00	
Ridley, J	do ... 12 " 111	1,332 00	
Browne, E	do ... 12 months @ $107, less military pay 378.70	905 30	
Lindsay, A	do ... 12 months 101	1,212 00	
Baile, W J	do ... 12 " 96	1,152 00	
Taynton, W S	do ... 12 " 86	1,032 00	
Egerton, Miss R	do ... 12 " 86	1,032 00	
Sherwood, H G	do ... 12 months @ $65, less military pay 365	415 00	
Sturgeon, E	Map-mounter ... 12 months 100	1,200 00	
Morris, H E	Accountant ... 12 " 130	1,560 00	
Watt, A A	Clerk ... 12 months @ $111, less military pay 365	967 00	
Beilby, J F	do ... 12 months 106	1,272 00	
Symonds, A	do ... 12 " 106	1,272 00	
Blandy, N P	do ... allowance while on military duty, 3 " 25	75 00	
Mulcahy, W A	do ... 12 " 86	1,032 00	
Graham, W A	do ... 6 " 75	450 00	
Blackmore, H	Junior Clerk ... 12 " 45	540 00	
Jacklin, A	do ... 9 " 35	315 00	
Paterson, J M	do ... 2 " 29 d. 35	102 74	
Malcolm, H R	Stenographer ... 12 " 65	780 00	
Lund, E	do ... 8 " 6 d. 60	491 60	
	Total, $46,480.99		
	MAPPING STAFF.		
Wright, H M	Draughtsman ... 12 months @ $131	1,572 00	
Fraser, A L	do ... 12 " 106	1,272 00	
Forrest, J G	do ... 12 months @ $101, less military pay 730	482 00	
Bamford, A R	Clerk ... 12 " 81, " 121	851 00	
	Total, $4,177		
	Water Rights Branch.		
Pope, C A	Chief Clerk ... 12 months @ $161.33	1,936 00	
Mountain, J R	Clerk ... 12 months @ $122, less military pay 166.50	1,297 50	
Thompson, C S	do ... 12 months 107	1,284 00	
Morley, S F	do ... 12 " 102	1,224 00	
Hardisty E E	do ... 12 " 102	1,224 00	
Paton A	do ... 12 " 96	1,152 00	
Scharff, C R	do ... 12 months @ $96, less military pay 730	422 00	
Bankes, S F	do ... 12 months 90	1,080 00	
Crawford, A O G	do ... 4 " 90	360 00	
McBride, J	do ... 12 " 90	1,080 00	
Mellon, M A	do ... 12 " 60	720 00	
Hawkins, S C	Junior Clerk ... 10 " 35	350 00	
Smith, B L	Stenographer ... 12 " 65	780 00	
Wolfe, A M	do ... 12 " 50	600 00	
Renouf, N W	Messenger ... 10 months @ $25; 2 " 40	330 00	
			223,702 86
	Total, $13,839.50		
	Vote No. 12.—Department of Public Works.		
Taylor, Hon T	Minister of Public Works ... 7 mos. 23 d. @ $500	3,883 33	
King, Hon J H	do ... 4 " 2 d. 500	2,033 33	
Taylor, M	Clerk to Minister ... 10 " 21 d. 100	1,075 00	
Myers, J E	do ... 3 months 125	375 00	
Griffith, J E	Deputy Minister of Public Works and Public Wks. Engineer 12 " 280	3,360 00	
Foreman, A E	Public Works Engineer ... 19 days 300	183 85	
Gwyer, W K	Assistant Public Works Engineer ... 11 mos. 12 days @ $220; 19 " 250	2,658 39	
Baxter, E G	Acting Assistant Public Works Engineer ... 12 mos. @ $200, less military pay 365	2,035 00	
Napier, G P	Assistant Engineer ... 12 " 220, " 730	1,910 00	
Kilpatrick, T	do ... 12 months 220	2,640 00	
Bell, W W	do ... 11½ " 210	2,415 00	
Stewart, A	do ... 12 months @ $210, less military pay 730	1,790 00	
Hodgins, A E	do ... 10 " 210, " 1,530	570 00	
Waters, A	Supervising Architect ... 10 mos. 25 days @ 210, " 248.64	2,020 72	
Cookson, C H	Draughtsman ... 12 months 191.66	2,300 00	
Middleton, W	do ... 12 " 148.33	1,780 00	
Whittaker, H	do ... 12 " 143.33	1,720 00	
Hood, A	Chief Clerk and Accountant ... 12 " 210	2,520 00	
Rolston, W G M	Assistant Accountant ... 12 " 134	1,608 00	
	Carried forward	.....	647,379 09

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	647,379 09
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 12.—Department of Public Worke.—Continued.		
Young, T G A	Clerk ... 12 months @ $134	1,608 00	
Howell, H A	do ... 12 " 107	1,284 00	
Edwardson, H W	do ... 12 " 107	1,284 00	
Lloyd, M B	do ... 12 " 96	1,152 00	
Cave, E	do ... 12 " 96	1,152 00	
Ard, W E	do ... 12 " 96	1,152 00	
Hughes, D C	do ... 12 " 90	1,080 00	
Turner, E	Junior Clerk ... 12 months @ $55, less military pay 365	295 00	
Turner, O	do ... 12 months 35	420 00	
Peddle, A M	Stenographer ... 12 " 75	900 00	
Egerton, M	do ... 12 " 65	780 00	
Kenney, F G	do ... 11 " 23½ d. 65	765 30	
Miles, C A	do ... 6 " 60	360 00	
Sherwood, D H	Janitor ... 10 months $65, less military pay 115.52	534 48	
	Total, $49,644.40		
	Steam-boiler Inspection.		
Peck, J	Chief Inspector ... 12 months @ $240	2,880 00	
Bond, M A	Clerk ... 12 " 70	840 00	
Corrigan, G K	Stenographer ... 12 " 60	720 00	
Stead, I	do ... 12 " 60	720 00	
Coupland, F	do ... 12 " 60	720 00	
Madigan, G O	Inspector ... 12 " 195	2,340 00	
Baxter, S	do ... 12 " 190	2,280 00	
Sutherland, A	do ... 12 " 190	2,280 00	
Downie, J	do ... 12 " 185	2,220 00	
Kay, J D	do ... 12 " 180	2,160 00	
McGown, G C	do ... 12 " 180	2,160 00	
Goepel, P A	do ... 12 " 175	2,100 00	
Bennett, A D	do ... 12 " 175	2,100 00	
Biggam, F	do ... 12 " 170	2,040 00	
Bath, F	do ... 8 " 8 d. 170	1,403 87	
Duckitt, L	do ... 12 " 155	1,860 00	
Clark, J	do ... 12 " 155	1,860 00	
Worth, H	do ... 5 " 18 d. 155	868 00	
	Total, $31,551.87		
	Wharf, Prince Rupert.		
Beatty, J R	Superintendent ... 6 m. 24 d. @ $150	1,466 13	
Daggett, H M	Accountant ... 12 months 125	1,500 00	
Biddle, E	Checker ... 2 " 3 d. 85	178 50	
Allett, A	do ... 9 " 10 d. 85	792 14	
McLean, A W	do ... 18 days 85	49 36	
Carey, P	Watchman ... 12 months 75	900 00	
	Total, $4,886.13		
	Electrical Energy Inspection Act.		
Roberts, D P	Inspector ... 12 months @ $251.66	3,020 00	
Muirhead, J	Assistant Inspector ... 12 " 135	1,620 00	
	Total, $4,640		
	Factories Act.		
Gordon, C R	Inspector ... 12 months @ $190	2,280 00	
Douglas, H	Assistant Inspector ... 12 " 135	1,620 00	
Dickinson, J	Stenographer ... 12 " 65	780 00	
	Total, $4,680		
	Parliament Buildings Attendants.		
Ryan, R	Chief Janitor and Messenger ... 12 months @ $130	1,560 00	
Graham, D	Janitor ... 12 " 85	1,020 00	
Tatham, F	do ... 12 " 85	1,020 00	
Lewis, R	do ... 12 " 85	1,020 00	
Bailey, W	do ... 12 " 85	1,020 00	
Steverson, H J	do ... 12 " 85	1,020 00	
Curtis, J	do ... 12 " 80	960 00	
Henley, J	do ... 12 " 80	960 00	
Davies, P	do ... 12 " 75	900 00	
Ferey, G R	do ... 5 " 11 d. 75	402 50	
Nelson, T	do ... 12 " 65	780 00	
	Carried forward	.....	647,379 09

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		647,379 09
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 12.—Department of Public Works.—Concluded.		
	Parliament Buildings Attendants.—Concluded.		
Riley, W.	Janitor ... 12 months @ $ 65	780 00	
Corfield, W	do ... 12 " 65	780 00	
Middleton, W	do ... 10 " 8 d. 65	668 57	
Lee, F	do ... 4 " 14 d. 65	289 35	
Wilson, A C	do ... 12 " 65	780 00	
Davies, A.	do ... 12 months @ $65, less military pay 59	721 00	
Enthwhistle, R	do ... 12 months 65	780 00	
Davies, C	do ... 12 " 65	780 00	
Edwards, H	do ... 12 " 65	780 00	
Saunders, P T	do ... 12 months @ $65, less military pay 365	415 00	
Manson, A	Engineer ... 12 months 125	1,500 00	
Thomson, W B	Fireman ... 3 " 11 d. 80	268 40	
Eccles, J H	do ... 8 " 80	640 00	
Davis, W	Carpenter ... 12 " 115	1,380 00	
Collingwood, W	Nightwatchman ... 8 " 77	616 00	
Steenson, W J	Watchman (outside) ... 12 " 80	960 00	
Nash, H H	Usher ... 12 " 90	1,080 00	
	Total, $23,880.82		119,283 22
	Vote No. 13.—Department of Railways.		
Gamble, F C	Chief Engineer ... 12 months @ $363.33	4,360 00	
Rae, W	Inspector under "Tramways Inspection Act" ... 12 " 185	2,220 00	
Badger, H C	Clerk ... 12 months @ $111, less military pay 730	602 00	
Cantwell, A J	do ... 10 months 80	800 00	
Diespecker, L	Junior Clerk ... 12 months @ $65, less military pay 452.55	327 45	
Moreton, M E.	Stenographer ... 12 months 60	720 00	
Bullock, F	Clerk ... 2 " 80	160 00	
			9,189 45
	Vote No. 14.—Attorney-General's Department.		
Bowser, Hon W J	Attorney-General ... 7 mos. 23 d. @ $500	3,883 33	
Macdonald, Hon M A	do ... 4 " 2 d. 500	2,033 33	
McLeod, J P	Deputy Attorney-General ... 6 months 335	2,010 00	
Johnson, A M	do ... 2 " 17 d. 335	853 71	
Hannington, H C	Inspector of Legal Offices ... 3 " 303.33	909 99	
Pineo, A V	do ... 2 " 303.33	606 70	
Pineo, A V	Departmental Solicitor ... 3 " 290	870 00	
Pineo, A V	Acting Deputy Attorney-General ... 7 " 335	2,345 00	
MacInnes, G L	Law Clerk ... 1 " 19 d. 90	151 07	
Alexander, H O	Official Guardian ... 12 " 100	1,200 00	
Garland, J	Stenographer to Official Guardian ... 12 " 60	720 00	
Colvin, W B	Chief Clerk ... 12 " 155	1,860 00	
Bridge, W F	Clerk ... 12 " 108	1,296 00	
Wilderspin, E C	do ... 12 " 108	1,296 00	
Moss, F	do ... 12 " 108	1,296 00	
Poudrier, A L	Junior Clerk ... 12 months @ $65: less military pay 417.85	362 15	
Rippon, R B	do ... 12 " 65; " 460.90	319 10	
Baker, W M	do ... 12 " 55; " 365	295 00	
Langley, H	Clerk ... 2 months 14 d. 90	222 50	
Wright, F. L	Stenographer ... 3 days 2.50	7 50	
Macalister, J	do ... 28 " 60	54 21	
Macleod, L	do ... 13 days @ $60; 1 month 80	107 86	
Hurst, M	do ... 2 months 60	120 00	
McGurran, E H	do ... 4 days 2.50	10 00	
Grist, N	do ... 8 " 2.50	20 00	
	Total, $22,849.45		
	Joint-stock Companies Branch.		
Garrett, H G	Registrar ... 12 months @ $285	3,420 00	
Llewellyn, W L	Clerk ... 12 " 166.66	1,400 00	
Smillie, A	Junior Clerk ... 12 " 30	360 00	
Floyd, E.	Stenographer ... 12 " 70	840 00	
	Total, $6,020		
	Land Registry Offices.		
	KAMLOOPS.		
Dunbar, C H	Registrar ... 12 months @ $260	3,120 00	
Simson, G F	Surveyor ... 12 " 108.33	1,300 00	
Burton, W J	Chief Clerk ... 12 " 125	1,500 00	
	Carried forward		775,851 76

TO WHOM PAID	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		775,851 76
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 14.—Attorney-General's Department.—Continued.		
	Land Registry Offices.—Continued.		
	KAMLOOPS.—*Concluded.*		
Outhett, C	Clerk ... 12 months @ $128	1,536 00	
Marshall, J	do ... 12 months @ $107, less military pay 365	919 00	
Macfarlane, W M	do ... 12 " 96, " 365	787 00	
Fullager, L H	do ... 12 " 100, " 165	1,035 00	
Clark, E W	do ... 12 " 90, " 365	715 00	
Phillips, F A	do ... 12 months 100	1,200 00	
Wilkinson, P D	do ... 12 months @ $90, less military pay 365	715 00	
Louis, R H	do ... 12 " 90, " 365	715 00	
Hughey, G M	do ... allowance while on military duty, 11 months 25	275 00	
Perrin, C A	do ... 12 " 90	1,080 00	
Scott, W J	do ... 12 " 90	1,080 00	
Dyson, A	Stenographer ... 12 " 65	780 00	
Kelly, M M	do ... 12 " 60	720 00	
Smith, E M	do ... 11 " 21 d. 60	700 65	
Macnab, N	do ... 4 " 15 d. 60	269 05	
Ford, M	do ... 12 " 60	720 00	
	Total, $19,166.70		
	NELSON.		
Roe, S R	Registrar ... 12 months @ $260	3,120 00	
Ronan, F C	Chief Clerk ... 12 " 125	1,500 00	
Pickford, A E	Surveyor ... 12 " 108.33	1,300 00	
Thompson, A E	do ... 12 " 100	1,200 00	
Wilson, D C	Clerk ... 12 " 112	1,344 00	
Morrow, R	do ... 12 " 96	1,152 00	
Cotter, J	do ... 12 months @ $90, less military pay 419.30	660 70	
McGuigan, C J	do ... 12 months 90	1,080 00	
Rennie, B G	do ... 12 months @ $90, less military pay 698	382 00	
McCoy, V	Stenographer ... 12 months 70	840 00	
Salter, J K	Janitor ... 12 " 75	900 00	
	Total, $13,478.70		
	NEW WESTMINSTER.		
Gwynn, J C	Registrar ... 12 months @ $260	3,120 00	
Hughes, H E	Surveyor ... 12 " 108.33	1,300 00	
Kirby, H G R	do ... allowance while on military duty, 10 " 27 d. 30	326 13	
Cheyne, R H	Chief Clerk ... 12 " 163.33	1,960 00	
Johannson, E	Clerk ... 12 " 125	1,500 00	
Johnson, M B	do ... 12 " 110	1,320 00	
Latham, C P	do ... 12 " 107	1,284 00	
Sivewright, A H	do ... 12 " 102	1,224 00	
Smith, G	do ... 12 " 102	1,224 00	
Wade, C E	do ... 12 " 102	1,224 00	
Henderson, M G B	do ... 12 " 100	1,200 00	
Friend, C W	do ... 6 months @ $96, less military pay 172.15	403 85	
Newman, R	do ... 12 months 96	1,152 00	
Nelson, J W	do ... 12 " 96	1,152 00	
Turner, E C	do ... 12 " 96	1,152 00	
Whitmore, R	do ... 12 " 96	1,152 00	
Williams, A G	do ... 12 " 96	1,152 00	
Annandale, C E	do ... 12 " 96	1,152 00	
Cawley, E S R	do ... 1 " 27 d. 90	168 39	
Clark, A	do ... 12 " 90	1,080 00	
McPhaden, D E	do ... 1 " 20 d. 90	148 07	
Watts, F G	do ... 12 " 90	1,080 00	
Charlton, J B	do ... 12 " 90	1,080 00	
George, F H	do ... 12 " 90	1,080 00	
Williams, L F	do ... 12 " 90	1,080 00	
McMartin, J A	do ... 12 " 87	1,044 00	
Rogers, G M	Stenographer ... 12 " 60	720 00	
Calbick, E H	do ... 12 " 60	720 00	
Turnbull, A S	do ... 12 " 60	720 00	
Dickson, M I	do ... 11 " 60	660 00	
Kelly, M I	do ... 12 " 60	720 00	
Hatherly, T H	Janitor ... 12 " 65	780 00	
	Total, $34,078.44		
	Carried forward		775,851 76

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		775,851 76
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 14.—Attorney-General's Department.—Continued.		
	Land Registry Offices.—Continued.		
	PRINCE RUPERT.		
MacLeod, H F	Registrar ... 12 months @ $200	2,400 00	
Ledlie, W J	Chief Clerk ... 11½ " 125	1,437 50	
Clements, F S	Surveyor ... 12 " 75	900 00	
Jenns, A M	Stenographer ... 6 " 7 d. 80	498 55	
Halsey, H M K	do ... 5 " 60	300 00	
	Total, $5,536.05		
	VANCOUVER.		
Smith, A G	Registrar ... 12 months @ $400	4,800 00	
Granger, R T F	Chief Clerk ... 12 " 203.33	2,440 00	
Baker, D W	Surveyor ... 12 " 108.33	1,300 00	
Guiliany, A V	do ... 8 " 24 d. 100	880 00	
Jones, G B	Clerk ... 12 " 147	1,764 00	
Rayner, J	do ... 12 " 135	1,620 00	
Doherty, M M	do ... 12 " 135	1,620 00	
Dalton, B	do ... allowance while on military duty, 12 " 75	900 00	
McLean, J A	do ... 12 " 121	1,452 00	
Matheson, G M	do ... 12 " 117	1,404 00	
Walker, W H	do ... 12 " 117	1,404 00	
Morrison, J W	do ... 12 " 117	1,404 00	
Emery, G W	do .. 2 mos. @ $117; allowance while on military duty, 10 " 50	734 00	
Green, R E	do ... 11 " 114	1,254 00	
Hay, J	do ... 12 " 112	1,344 00	
Adamson, A	do ... 6 " 18 d. 107	704 50	
Burgoyne, J M	do ... 12 months @ $102, less military pay 730	494 00	
McGill, J	do ... 12 " 96, " 365	787 00	
Tillotson, J W	do ... 12 " 96, " 365	787 00	
Ranniger, A E	do ... 12 " 96	1,152 00	
Mason, A D	do ... 12 " 96	1,152 00	
Grayson, H	do ... 12 months @ $96, less military pay 506.90	645 10	
Mallett, P	do ... 12 months 96	1,152 00	
Pascoe, M G	do ... 1 " 13 d. 96	133 45	
Sowerby, M B	do ... 12 " 91	1,092 00	
Forrest, H P	do ... 8 " 20 90	780 00	
Hyde, G A E	do ... 7 " 5 d. 90	645 00	
Sutton, J M	do ... 11 " 24 d. 90	1,062 20	
Weeks, G	do ... 8 " 90	720 00	
Pyke, J A	do ... 1 " 21 d. 90	150 95	
Wood, E J	do ... 11 " 28 d. 90	1,074 20	
Hutchinson, F J	do ... 7 " 8 d. 90	654 00	
Stewart, M	do ... 2 days 90	6 00	
Stinson, G R	do ... 24 " 90	72 00	
Hunt, W L	do ... 12 months @ $81, less military pay 365	607 00	
Crummer, P	Junior Clerk ... 7 mos. 27 d. 80	629 65	
Fraser, H M	do ... allowance while on military duty, 12 months 25	300 00	
Langley, W	Stenographer ... 12 " 80	960 00	
Pattison, A M	do ... 11 " 29 d. 70	835 50	
Campbell, K M	do ... 9 " 65	585 25	
McPherson, C M	do ... 9 " 24 d. 60	588 30	
	Total, $42,089.10		
	VICTORIA.		
Wootton, S Y	Registrar-General, 5 mos. @ $260; 6 mos. half-pay, $780, less ½ mo. full pay $130	1,950 00	
Hirst, H F	Surveyor ... 12 months @ 108.33	1,300 00	
Ryves, G B	do ... 12 months @ $108.33, less military pay 264	1,035 95	
Van Raalte, P S	do ... 12 months 100	1,200 00	
Fort, E M	Chief Clerk ... 12 " 203.33	2,440 00	
Ward, B F J	Clerk ... 12 " 158.33	1,900 00	
Cashmore, T	Clerk and Book-keeper ... 12 " 146	1,752 00	
Muirhead, J T	Clerk ... 12 " 123	1,476 00	
Riddell, A	do ... 12 " 123	1,476 00	
Holms, J	do ... 12 " 123	1,476 00	
Hunt, R A	do ... 9 " 12 d. 121	1,135 84	
Stokes, E S	do ... 12 " 121	1,452 00	
McPhee, D L	do ... 12 " 120	1,440 00	
Mackenzie, F	do ... 12 " 120	1,440 00	
Dubois, F	do ... 12 " 120	1,440 00	
Exham, F R	do ... 12 " 120	1,440 00	
Thwaites, B C	do ... 12 months @ $108, less military pay 730	566 00	
Flamank, G	do ... 12 months 102	1,224 00	
Webster, H	do ... 12 " 100	1,200 00	
Appleby, M J	do ... 12 " 96	1,152 00	
Dibblee, G J	do ... 3 " 16 d. 96	337 55	
	Carried forward		775,851 76

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward		775,851 76
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	***Vote No. 14.—Attorney-General's Department.*—Continued.**		
	***Land Registry Offices.*—Concluded.**		
	VICTORIA.—*Concluded.*		
Hodson, J H	Clerk ... 12 months @ $ 96	1,152 00	
Littleboy, J W H	do ... 12 " 96	1,152 00	
Moss, C	do ... 12 " 96	1,152 00	
Beatson, A R D	do ... 12 months @ $90, less military pay 365	715 00	
Hemberow, R N C	do ... 12 " 90, " 59	1,021 00	
Howland, T	do ... 12 months 90	1,080 00	
Marr, H	do ... 12 " 90	1,080 00	
Peirce, A J	do ... 12 " 90	1,080 00	
Thomas, D	do ... 12 " 90	1,080 00	
Evans, L W	do ... 12 " 90	1,080 00	
Banks, J C	do ... 12 " 90	1,080 00	
Freeman, E D	do ... 12 " 90	1,080 00	
Landman, H E	do ... 12 " 90	1,080 00	
Hadley, W A R	do ... 12 months @ $90, less military pay 365	715 00	
O'Keefe, J H	Junior Clerk ... 12 " 60, " 369.05	350 95	
Mutrie, N M P	Stenographer ... 12 months 75	900 00	
Miller, G	do ... 12 " 65	780 00	
Macfadden, M	do ... 12 " 65	780 00	
Brethour, M A	do ... 9 " 18 d. 60	574 84	
	Total, $46,766.13		
	Supreme and County Courts.		
	OFFICIAL STENOGRAPHERS.		
Gilbert, J	Stenographer, Victoria ... 12 months @ $112	1,344 00	
Evans, F	do Vancouver ... 12 " 112	1,344 00	
	Total, $2,688		
	CHILLIWACK.		
Pelly, J	Registrar ... 12 months @ $50	600 00	
Peers, J	Janitor ... 12 " 40	480 00	
	Total, $1,080		
	LADYSMITH.		
Stewart, J	Deputy Registrar ... 12 months @ $25	300 00	
	MERRITT.		
Morgan, J. S	Deputy Registrar ... 12 months @ $25	300 00	
	NELSON.		
Bowman, T M	Registrar ... 12 months @ $176.33	2,019 37	
Steel, M C	Stenographer ... 12 " 55	660 00	
	Total, $2,679.37		
	NEW WESTMINSTER.		
Cambridge, J J	Registrar ... 12 months @ $187.33	2,248 00	
Brine, A J	Clerk ... 12 " 118	1,416 00	
Turnbull, J E	Junior Clerk ... 12 " 80	960 00	
Annandale, E M	Stenographer ... 12 " 65	780 00	
Banton, F W	Janitor and Messenger ... 12 " 80	960 00	
	Total, $6,364		
	PRINCE RUPERT.		
Burritt, W E	Registrar ... 12 months @ $183.33	2,200 00	
	VANCOUVER.		
Pottenger, A B	Registrar ... 12 months @ $310	3,720 00	
Dockerell, J C	Deputy Registrar ... 12 " 178.33	2,140 00	
Eckersley, A R	Clerk ... 12 months @ $102, less military pay 151	1,073 00	
Willis, C E	do ... allowance while on military duty, 12 months 50	600 00	
Thompson, W	do ... 12 " 96	1,152 00	
Pattison, R M	do ... 1 " 96	96 00	
Pascoe, M G	do ... 7 " 96	672 00	
Knight, R C	do ... 12 " 96	1,152 00	
	Carried forward		775,851 76

TO WHOM PAID.	FOR WHAT SERVICE.	cts.	$ cts.
	Brought forward		775,851 76
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 14.—Attorney-General's Department.—Continued.		
	Supreme and County Courts.—Concluded.		
	VANCOUVER.—*Concluded.*		
Godfrey, I	Clerk ... 12 months @ $ 96	1,152 00	
Hemming, A H	do ... 12 months @ $96, less military pay 365	787 00	
Rodway, A L	do ... 12 " 96, " 365	787 00	
Dallas, C M	do ... 12 months 92	1,104 00	
Graham, J H	do ... 12 months @ $90, less military pay 547.50	532 50	
Wager, R H	do ... 12 " 90, " 151	929 00	
Allen, W H	do ... 12 " 90, " 151	929 00	
Wellings, W R	do ... 12 months 90	1,080 00	
Gardner, J L	do ... 12 " 90	1,080 00	
Frith, H N	do ... 12 " 90	1,080 00	
Brown, L J	do ... 12 " 90	1,080 00	
Preston, J A	do ... 12 " 90	1,080 00	
Stewart, M	do ... 11 " 28 d. 90	1,074 00	
Stinson, G R	do ... 11 months 6 days @ $90, less military pay 211	797 00	
McIntosh, A G	Junior Clerk ... 12 months @ $80, less military pay 365	595 00	
Love, A J D	do ... 12 " 80, " 335	625 00	
MacKenzie, C K	Stenographer ... 12 months 65	780 00	
Norris, M O	do ... 7 " 14 d. 60	447 44	
Coots, J	do ... 5 " 60	300 00	
Hutchinson, F J	Clerk ... 22 days 90	66 00	
Hyde, G A E	do ... 4 months 25 d. 90	435 00	
Forrest, H P	do ... 3 " 10 d. 90	300 00	
	Total, $27,644.94		
	VICTORIA.		
Combe, H	Registrar, County Court ... 12 months @ $181.66	2,180 00	
Mackay, G	Clerk for Judges ... 12 " 117	1,404 00	
Barton, O	Clerk ... 12 " 96	1,152 00	
Woodruff, L P	do ... 5 " 16 d. 96	531 20	
Weston, S F	do ... 12 " 96	1,152 00	
Barnes, H C H	do ... 12 " 90	1,080 00	
Fairbairn, A	do ... 12 " 90	1,080 00	
Fawcett, V C	do ... allowance while on military duty, 6 mos. @ $20; 6 " 30	300 00	
Bland, J W	Usher and Janitor ... 12 " 100	1,200 00	
Whitfield, A	Assistant Janitor ... 12 " 70	840 00	
Moss, E	do ... 12 " 65	780 00	
Griffiths, J H	do ... 12 " 65	780 00	
Jones, W	Fireman ... 12 months @ $75, less military pay 304	596 00	
Minckler, C	Elevator Attendant ... 12 months 65	780 00	
Pye, W T	Nightwatchman ... 12 " 65	780 00	
Weaving, J	Fireman ... 5 " 22 d. 75	428 20	
	Total, $15,063.40		
	Legislative Library.		
Scholefield, E O S	Librarian ... 12 months @ $210	2,520 00	
Russell, A M	Cataloguer ... 12 " 127	1,524 00	
Forsyth, J	Assistant Cataloguer ... 12 " 96	1,152 00	
Burnett, M	do ... 5 " 81	405 00	
Wolfenden, M	do ... 12 " 65	780 00	
Killam, H	Clerk ... 12 " 107	1,284 00	
Hosie, J	do ... 12 " 96	1,152 00	
Heinekey, E	Junior Clerk ... 12 " 60	720 00	
LeMesurier, C A	do ... 12 " 50	600 00	
Bidlake, G	do ... 10 " 35	350 00	
Austin, K	Stenographer ... 12 " 55	660 00	
McGregor, E F N	do ... 12 " 40	480 00	
	Total, $11,627		
	Fisheries Department.		
Babcock, J P	Assistant to Commissioner of Fisheries ... 12 months @ $285	3,420 00	
McIntyre, D N	Deputy Commissioner of Fisheries ... 12 months @ $260, less military pay 182	2,938 00	
Hickman, C P	Inspector of Fisheries ... 12 months 118.33	1,420 00	
Miles, G H	Junior Clerk ... 12 months @ $45, less military pay 365	175 00	
Buckle, R	Stenographer ... 10 months 45	450 00	
	Total, $8,403		
	Carried forward		775,851 76

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	775,851 76
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	***Vote No. 14.—Attorney-General's Department.*—Continued.**		
	Moving Pictures Act.		
Gordon, C L	Censor ..... 12 months @ $170	2,040 00	
Smith, J A	Assistant Censor ..... 12 " 125	1,500 00	
Oswald, W A	do ..... 12 " 125	1,500 00	
Flett, J	do ..... 12 " 100	1,200 00	
Watkis, M G	Operator ..... 12 " 100	1,200 00	
Kelly, H B	Clerk ..... 9 months @ $90, less military pay 275	535 00	
	Total, $7,975		
	Municipal Department.		
Baird, R	Inspector of Municipalities ..... 12 months @ $250	3,000 00	
Ross, O W	Clerk ..... 12 " 125	1,500 00	
Pineo, E	Stenographer ..... 5 " 60	300 00	
Barr, W W	do ..... 9 days 45	13 06	
Ellis, R	do ..... 5 months 7d. 60	312 59	
Morris, A	do ..... 8 days 60	15 48	
	Total, $5,141.13		
	Game Act.		
Williams, A Bryan	Game Warden ..... 12 months @ $201.66	2,420 00	
Hose, R E	Clerk ..... 12 " 90	1,080 00	
Jennings, G H	do ..... 12 months @ $90, less military pay 365	715 00	
Martin, W	do ..... 12 months 80	960 00	
Butler, F R	do ..... 5 " 2 d. 45	228 00	
Kenney, J W	do ..... 4 days 2.50	10 00	
Harpwood, F C	do ..... 6 " 2.50	15 00	
Higgins, H	do ..... 1 month 16 d. 75	117 85	
Avery, W	Deputy Game Warden ..... 12 months 95	1,140 00	
Cummins, A P	do ..... 12 " 95	1,140 00	
Graham, J W	do ..... 12 " 95	1,140 00	
Holst, O	do ..... 12 " 95	1,140 00	
Gidley, R	do ..... 12 " 95	1,140 00	
Terrell, G A B	do ..... 12 " 95	1,140 00	
Lewis, C J	do ..... 12 months @ $95, less military pay 730	410 00	
Bond, R M	do ..... 8 months 75	600 00	
Lodwick, G	do ..... 12 months @ $90, less military pay 271	809 00	
Schisler, C	do ..... 12 months 85	1,020 00	
Dawley, H B	do ..... 12 months @ $85, less military pay 347	673 00	
Robinson, S G	do ..... 6 months 21 d. 75	500 80	
Bedford, H E R	do ..... 12 months 85	1,020 00	
Ward, A A	do ..... 12 " 85	1,020 00	
Nixon, W	do ..... 12 " 85	1,020 00	
Morant, F G	do ..... 12 " 75	900 00	
Christian, M	do ..... 9 " 75	675 00	
Wearmouth, H F	do ..... 2 " 75	150 00	
Harmer, F	do ..... 12 " 75	900 00	
Blackmore, G W	do ..... 12 " 75	900 00	
Carter, W R	do ..... 12 " 75	900 00	
Richardson, R T	do ..... 12 " 75	900 00	
Van Dyk, T	do ..... 9 " 75	675 00	
Fisher, G	do ..... 2 " 75	150 00	
Mader, L	do ..... 12 " 75	900 00	
Dunn, R	do ..... 12 " 75	900 00	
Ferguson, H H	do ..... 10 " 75	750 00	
Butterfield, G	do ..... 12 " 75	900 00	
Cochran, A S	do ..... 12 " 75	900 00	
Dennis, G	do ..... 12 " 75	900 00	
Dundas, R N	do ..... 10 " 75	750 00	
Gartrell, G N	do ..... 10 " 75	750 00	
Bishop, H	do ..... 10 " 75	750 00	
Carter, A	do ..... 12 " 75	900 00	
Stuart, J A	do ..... 11 " 75	825 00	
Hughes, F W	do ..... 22 days 75	53 23	
Lathrop, J S	do ..... 3 months 6 d. 75	238 06	
Hadley, W H	do ..... 2 " 75	150 00	
Boyd, S S	do ..... 10 " 75	750 00	
Reed, H D	do ..... 11 " 12 d. 75	855 00	
Rushford, R	do ..... 10 " 25 d. 75	810 50	
Thacker, T L	do ..... 10 " 17 d. 75	791 13	
Stirling, C W	do ..... 10 " 17 d. 75	791 13	
Blackwood, M	do ..... 6 " 60	360 00	
Bond, R M	do ..... 4 days 75	9 68	
O'Neill, J S	do ..... 7 months 75	525 00	
Barker, J R	do ..... 4 " 14 d. 75	335 00	
	Total, $40,502.38		
	Carried forward	.....	775,851 76

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		775,851 76
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 14.—Attorney-General's Department.—Continued.		
	Provincial Police.		
	SUPERINTENDENT'S OFFICE.		
Campbell, C S	Superintendent ... 12 months @ $220	2,640 00	
Wynn, T G	Inspector ... 12 " 168.33	2,020 00	
Owen, W G	Assistant Inspector ... 12 " 150	1,800 00	
Green, J E	Chief Detective ... 12 " 120	1,440 00	
Cox, D G	Clerk and Constable ... 12 " 141	1,692 00	
Allan, H R	do ... 15 days 75	37 50	
Mainwaring, H D	Constable ... 8 months 75	600 00	
Hood, G A	Clerk ... 12 " 91	1,092 00	
Booth, C A	do ... 12 " 91	1,092 00	
Smith, F	Junior Clerk ... 15 days 75	37 50	
Clark, C	do ... 7 months 28 d. 35	276 60	
Clarke, H H	do ... 12 " 35	420 00	
Owens, R	Constable...2 m. @ $85; allowance while on military duty, 10 days 45	620 00	
Stone, A W	do ... 4½ months 80	360 00	
Tait, A	do ... 5 " 27 d. 75	442 50	
McDonald, D	do ... 6 " 80	480 00	
Brethour, C D	do ... 2 " 14 d. 75	183 87	
	Total, $15,233.97		
	BOUNDARY POLICE DISTRICT.		
Simpson, J	Chief Constable ... 12 months @ $102	1,224 00	
Nichols, C	Constable ... 11 " 75	825 00	
Stanfield, G	do ... 12 " 85	1,020 00	
Sproule, G H	do ... 12 " 88	1,056 00	
Bowen, R W	do ... 12 " 85	1,020 00	
Docksteader, W H	do ... 12 " 85	1,020 00	
Howieson, G H	do ... 3 " 80	240 00	
Stewart, W B	do ... 9 " 85	765 00	
Pritchard, R	do ... allowance while on military duty, 12 " 10	120 00	
Mansell, H H	do ... 2 " 75	150 00	
	Total, $7,440		
	FORT GEORGE POLICE DISTRICT.		
Dunwoody, W R	Chief Constable ... 7 months @ $130	910 00	
Minty, A C	do ... 5 " 130	650 00	
Evans, C F	Constable ... 12 " 80	960 00	
Rayner, R W	do ... 2 " 14 d. 75	185 00	
Pittendrigh, G B	do ... 9 " 75	675 00	
Lewis, V	do ... 3 " 22 d. 75	280 00	
Wood, H N	do ... 12 " 75	900 00	
	Total, $4,560		
	FORT ST. JOHN POLICE DISTRICT.		
Parsons, T W S	Chief Constable ... 12 months @ $115	1,380 00	
Mansell, T A	Constable ... 12 " 90	1,080 00	
Duncan, G J	do ... 12 " 90	1,080 00	
	Total, $3,540		
	HAZELTON POLICE DISTRICT.		
Minty, A C	Chief Constable ... 7 months @ $130	910 00	
Taylor, H	do ... 5 " 125	625 00	
Lavery, H S	Constable ... 5 " 75	375 00	
Cline, S	do ... 12 " 75	900 00	
Henley, W R	do ... 12 " 80	960 00	
Mead, J	do ... 12 " 75	900 00	
Kelly, J	do ... 12 " 80	960 00	
Fairbairn, A	do ... 12 " 85	1,020 00	
	Total, $6,650		
	KAMLOOPS POLICE DISTRICT.		
Fernie, W L	Chief Constable ... 12 months @ $108, less military pay $730=$566; allowance as Deputy Licence Inspector, 12 months @ $10=$120	686 00	
Greenwood, G H	Constable ... 12 months @ $80, less military pay $458.64	501 36	
Mortimer, W	do ... 1 month 5 d. 75	87 50	
Adam, G H	do ... 11 months 75	825 00	
Brickland, H E	do ... 9 " 15 d. 80	758 70	
Mason, T G	do ... 12 " 80	960 00	
Bell, G	do ... 12 months @ $80, less military pay 304	656 00	
Condon, M J	do ... 12 months 80	960 00	
	Carried forward		775,851 76

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward		775,851 76
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	***Vote No. 14.—Attorney-General's Department.*—Continued.**		
	***Provincial Police.*—Continued.**		
	KAMLOOPS POLICE DISTRICT.—*Concluded.*		
Hardiman, J W	Constable — 12 months @ $ 75	900 00	
Jupp, P W	do — 12 " 80	960 00	
McConnell, J J	do — 1 month 15 d. 75	112 50	
Carr, P	do — 10 months 75	750 00	
Tame, C	do — 12 " 75	900 00	
McDonald, D A	do — 10 " 85	850 00	
	Total, $9,907 06		
	KOOTENAY (NORTH-EAST) POLICE DISTRICT.		
Sutherland, R J	Chief Constable — 12 months @ $100	1,200 00	
McDougall, H J	Constable — allowance while on military duty 12 " 15	180 00	
Gibson, J T S	do — 9 " 75	675 00	
Laird, W	do — 5 " 21 d. 75	427 50	
McIver, M	do — 5 " 80	400 00	
Hazelton, D A	do — 12 " 75	900 00	
Bell, J J	do — 12 " 75	900 00	
Mills, R F	do — 12 " 80	960 00	
Renner, J	do — 12 " 80	960 00	
	Total, $6,602.50		
	KOOTENAY (SOUTH-EAST) POLICE DISTRICT.		
Welsby, G H	Chief Constable — 12 months @ $100	1,200 00	
McNeill, A	Constable — 12 " 75	900 00	
King, R	do — 5 " 75	375 00	
Yates, A	do — 7 " 75	525 00	
Boardman, J	do — 12 " 85	1,020 00	
Kerr, C	do — 12 " 85	1,020 00	
McGuffie, H C	do — 10½ months @ $85, less military pay	151 741 50	
Ainsworth, E	do — 1 month 75	75 00	
Gorman, M	do — 12 months 85	1,020 00	
Walsh, J	do — 12 " 85	1,020 00	
Arden, A	do — 11 months 16 days @ $80, less military pay	351 571 66	
Norgrove, J	do — 7 months 75	525 00	
Hawkins, E A M	do — 1 " 75	75 00	
Fowler, W R	do — 10 " 75	750 00	
O'Conner, C	do — 12 " 80	960 00	
Hughes, H	do — 12 " 75	900 00	
Dryden, A	do — 12 " 75	900 00	
English, J	do — 3 " 75	225 00	
Duncan, F H	do — 8 " 75	600 00	
	Total, $13,403.16		
	KOOTENAY (WEST) POLICE DISTRICT.		
Black, J T	Chief Constable — 12 months @ $106	1,272 00	
King, H W	Constable — 1 " 80	80 00	
Forrester, W C	do — 12 " 85	1,020 00	
Williams, J A	do — 12 " 80	960 00	
Smith, J M	do — 11 m. @ $85; allowance while on military duty, 1 " 30	965 00	
Gunn, G M	do — 12 " 85	1,020 00	
McLaren, H C	do — 12 " 85	1,020 00	
Vachon, E A	do — 12 " 85	1,020 00	
Johnston, J F	do — 12 " 75	900 00	
	Total, $8,257		
	LILLOOET POLICE DISTRICT.		
Aiken, F E	Chief Constable — 12 months @ $102	1,224 00	
Spiller, W	Constable — 9 " 16 d. 90	858 00	
McLean, A D	do — 1 " 6 d. 75	90 00	
Pittendrigh, G B	do — 3 " 75	225 00	
Bourne, J	do — 12 " 85	1,020 00	
Richards, C S	do — 12 " 80	960 00	
Harris, H V	do — 12 " 81	972 00	
	Total, $5,349		
	Carried forward		775,851 76

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		775,851 76
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 14.—Attorney-General's Department.—Continued.		
	Provincial Police.—Continued.		
	NANAIMO-WEST COAST POLICE DISTRICT.		
Stephenson, D	Chief Constable ... 7 months @ $122	854 00	
Dunwoody, W R	do ... 5 " 100	500 00	
Mustart, A D	Constable ... 12 " 80	960 00	
Adam, G H	do ... 1 " 75	75 00	
Banasky, G D	do ... 9 " 5 d. 75	685 25	
Pallant, A C	do ... 12 " 80	960 00	
Beavan, R A	do ... 12 months @ $85, less military pay 365	655 00	
Hannay, J	do ... 12 months 85	1,020 00	
Macdonald, J	do ... 12 " 75	900 00	
Kemp, E H	do ... 5 months @ $80, less military pay 168.30	231 70	
Russell, J	do ... 4 months 80	320 00	
Kvarno, J H	do ... 12 " 30	360 00	
	Total, $7,520.95		
	SKEENA-ATLIN POLICE DISTRICT.		
Gammon, E	Chief Constable ... 12 months @ $135	1,620 00	
Scarlett, J P	Constable ... 4 " 75	300 00	
Brethour, C D	do ... 7 " 75	525 00	
Gordon, S C	do ... 12 " 80	960 00	
Webster, R	do ... 3 " 95	285 00	
Scarlett, J P	do ... 7 " 95	665 00	
Broughton, F	do ... 9 months @ $85; 3 " 80	1,005 00	
Hutchings, J M	do ... 8 " 7 d. 85	699 20	
Prescott, W	do ... 12 " 85	1,020 00	
Emmott, F N	do ... 12 " 80	960 00	
Birchall, K F	do ... 12 " 80	960 00	
Deane, J R C	do ... 12 " 85	1,020 00	
Jack, P S	do ... 12 " 85	1,020 00	
Doolittle, C E	do ... 12 " 80	960 00	
Sheil, J W	do ... 8 " 75	600 00	
	Total, $12,599.20		
	TETE JAUNE CACHE POLICE DISTRICT.		
Taylor, H	Chief Constable ... 7 months @ $125	875 00	
Walker, W A	Constable ... 5 " 7 d. 75	392 50	
Stevenson, W	do ... 1 " 75	75 00	
Aynsley, W C	do ... 10 " 19 d. 75	797 50	
Freeman, J A	do ... 12 " 75	900 00	
O'Halloran, F F	do ... 12 " 75	900 00	
	Total, $3,940		
	VANCOUVER-WESTMINSTER POLICE DISTRICT.		
Smith, T	Chief Constable ... 12 months @ $130	1,560 00	
North, S	Senior Constable ... 12 " 91	1,092 00	
Moss, C H	Clerk and Constable ... 12 " 91	1,092 00	
McNeely, A D	Clerk ... 11 " 10 d. 91	1,030 35	
Markland, F D	Constable ... 11 " 24 d. 85	1,000 81	
Huggins, W	do ... 12 " 80	960 00	
Blair, W E	do ... 12 " 75	900 00	
Lines, W H	do ... 12 " 85	1,020 00	
Helmsing, H F	do ... 12 months @ $85, less military pay 442.26	577 74	
Matthews, R L	do ... 12 " 75	900 00	
Barber, C G	do ... 12 " 80	960 00	
Stephenson, A T	Senior Constable ... 12 " 95	1,140 00	
Bleakley, D E	Constable ... 12 " 80	960 00	
Venables, P F	do ... 1 " 75	75 00	
Gilbert, C W	do ... 8 " 75	600 00	
Lister, F H	do ... 4 " 23 d. 85	403 06	
Hatch, C J	do ... 3 " 75	225 00	
Curley, J A	do ... 4 " 75	300 00	
Marshall, S	do ... 12 " 85	1,020 00	
Wing, H A	do ... 12 " 85	1,020 00	
Saunders, S S	do ... 12 months @ $80, less military pay 365	595 00	
Clarkson, F	do ... 6 " 85, " 182	328 00	
Rhind, J R	do ... 18 days 75	43 54	
McLean, A D	do ... 1 month 75	75 00	
	Total, 17,877.50		
	Carried forward		775,851 76

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	775,851 76
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 14.—Attorney-General's Department.—Concluded.		
	Provincial Police.—Concluded.		
	VERNON POLICE DISTRICT.		
Fraser, J A.	Chief Constable ... 12 months @ $102	1,224 00	
Taylor, J R.	Constable ... 5 " 75	375 00	
Johnson, G A.	do ... 4 " 19 d. 75	347 50	
Patten, R W.	do ... 12 " 75	900 00	
McDonald, D A.	do ... 2 " 85	170 00	
Graham, E C.	do ... 10 " 75	750 00	
McDonald, R.	do ... 12 " 85	1,020 00	
	Total, $4,786.50		
	VICTORIA POLICE DISTRICT.		
Kier, W.	Constable ... 12 months @ $87	1,044 00	
Fryer, F J.	do ... 11 " 80	880 00	
McDonald, D.	do ... 6 " 80	480 00	
Gaernaert, O W.	do ... 2 " 75	150 00	
	Total, $2,554		
	YALE POLICE DISTRICT.		
Cameron, J.	Chief Constable ... 12 months @ $108	1,296 00	
Greenwood, W.	Constable ... 12 " 80	960 00	
Stewart, W B.	do ... 3 months @ $85, less military pay 91	164 00	
Blue, G S.	do ... 12 months 85	1,020 00	
Somerville, T.	do ... 12 " 80	960 00	
Bell, W	do ... 7 " 8 d. 80	580 80	
Farr, A.	do ... 6 " 80	480 00	
Wyatt, H R.	do ... 12 " 85	1,020 00	
Enwright, E.	do ... 11 " 15 d. 80	919 00	
Badman, P.	do ... 4 " 18 d. 75	345 00	
Lavery, H S.	do ... 4 " 14 d. 75	335 00	
	Total, $8,079.80		
	Industrial School for Boys.		
Donaldson, D.	Superintendent ... 12 months @ $115	1,380 00	
Johnston, W	Gardener and Farm Instructor ... 10 " 67	670 00	
Pullen, M F	School-teacher ... 12 " 82	984 00	
Forsyth, W.	Tailor and 1st Assistant ... 12 " 71	852 00	
McLean, A	Shoemaker and 2nd Assistant ... 12 " 69	828 00	
Collier, H B	Carpenter and 3rd Assistant ... 12 months @ $67 : less military pay 365	439 00	
Allan, J C.	4th Assistant and Gardener ... 1 month 13 days @ $67 ; 10 months 15 d. 52	646 10	
Reid, H	5th Assistant ... 11 " 6 d. 52	583 00	
Duff, H	Cook ... 12 " 67	804 00	
Donaldson, Mrs C.	Matron and Housekeeper ... 12 " 35	420 00	
Calbick, T H	Nightwatchman ... 12 " 65	780 00	
Redburn, S C.	Band Instructor ... 12 " 25	300 00	
Mathews, W.	4th Assistant ... 25 days 52	42 00	
Cook, J G	5th Assistant ... 1 month 6 d. 52	63 10	
	Total, $8,791.20		
	Industrial School for Girls.		
Collier, T H	Superintendent ... 12 months @ $110	1,320 00	
Bailey, E	First Assistant ... 12 " 50	600 00	
Jobbitt, M L.	School-teacher ... 1 month @ $35 ; 11 " 40	475 00	
Robinson, M.	Needlewoman ... 12 " 40	480 00	
Collier, Mrs I	Matron and Housekeeper ... 12 " 25	300 00	
Brown, M	Cook ... 12 " 40	480 00	
Clark, J R.	Engineer and Janitor ... 12 " 100	1,200 00	
Cameron, F W.	Gardener ... 12 " 75	900 00	
	Total, $5,755		474,799 63
	Vote No. 15.—Government Agencies.		
	ALBERNI AGENCY.		
Smith, S McB.	Government Agent and Assessor ... 8 months @ $187.66	1,501 28	
Hooson, J E.	do " ... 4 " 176.74	706 72	
Lee, A W.	Clerk and Registrar ... 12 " 117	1,404 00	
Freeze, A G.	Clerk ... 12 " 90	1,080 00	
Norris, H L.	Junior Clerk ... 5 " 75	375 00	
Perry, E.	Stenographer ... 12 " 60	720 00	
Packard, J.	Janitor ... 12 " 40	480 00	
	Total, $6,267		
	Carried forward	.....	1250651 39

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	1250651 39
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 15.—Government Agencies.—Continued.		
	Cariboo District Agencies.		
	BARKERVILLE (SUB-AGENCY).		
Grain, C W	Gold Commissioner and Mining Recorder ..... 12 months @ $143.33	1,720 00	
Grain, M	Stenographer ..... 11½ " 60	690 00	
	Total, $2,410		
	FORT GEORGE.		
Herne, T W	Government Agent ..... 12 months @ $166.66	2,000 00	
Randall, R C S	Clerk and Mining Recorder ..... 12 " 127	1,524 00	
Saunders, S W N	Clerk ..... 12 " 96	1,152 00	
	Total, $4,676		
	150-MILE HOUSE.		
Sampson, A	Government Agent, Mining Recorder, and Assessor ..... 12 months @ $134	1,608 00	
McGusty, R M	Clerk ..... 12 " 90	1,080 00	
	Total, $2,688		
	QUESNEL.		
Milburn, G	Government Agent ..... 12 months @ $165	1,980 00	
Kraemer, H T	Clerk and Deputy Mining Recorder ..... 12 " 100	1,200 00	
Carver, R R	Clerk ..... 12 " 90	1,080 00	
Stevenson, J	Assessor and Collector ..... 12 " 181.66	2,180 00	
Couldwell, W	Clerk ..... 12 " 90	1,080 00	
Stewart, J A	do ..... 11 months @ $96, less military pay $194; allowance on military duty, 1 month @ $25	886 99	
Vaughan, H B	Clerk ..... 12 months @ $90	1,080 00	
Foot, C S	do ..... 12 " 90	1,080 00	
Maclure, L C	do ..... 6 " 90	540 00	
Wilkie, O	do ..... 2 " 90	180 00	
Collins, W L	do ..... 7 " 90	630 00	
Allen, S	do ..... 6 " 90	540 00	
Curtis, A F	do ..... 12 " 90	1,080 00	
Foot, P J	do .. allowance while on military duty 4 months @ $85; 8 " 20	300 00	
	Total, $13,836.99		
	Cassiar Agencies.		
	ATLIN.		
Fraser, J A	Government Agent, Gold Commissioner, etc ..... 12 months @ $200	2,400 00	
Paxton, W G	Clerk ..... 12 " 138.33	1,660 00	
McDonald, J C	Stenographer ..... 12 " 86	1,032 00	
	Total, $5,092		
	TELEGRAPH CREEK.		
Dodd, H W	Government Agent, Gold Commissioner, etc ..... 12 months @ $110	1,320 00	
	Cumberland Agency.		
Baird, J	Government Agent and Assessor ..... 12 months @ $171.66	2,060 00	
Grant, C H	Clerk ..... 12 " 110	1,320 00	
Aitken, A	do ..... 4 " 90	360 00	
Norris, H	do ..... 7 " 75	525 00	
	Total, $4,265		
	Duncan Agency.		
Maitland-Dougall, J	Government Agent and Assessor ..... 12 months @ $155.33	1,864 00	
Morten, H D	Clerk ..... 12 " 95	1,140 00	
Day, V P	do ..... 12 " 35	420 00	
	Total, $3,424		
	Carried forward	.....	1250651 39

TO WHOM PAID.	FOR WHAT SERVICE	$ cts.	$ cts.
	Brought forward	.....	1250651 39
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 15.—Government Agencies.—Continued.		
	East Kootenay Agencies.		
	CRANBROOK.		
Wallinger, N A	Government Agent. 12 months @ $163.33	1,960 00	
Clark, H S	Assessor and Collector 2 " 114	228 00	
Carter, G W F	Clerk and Registrar 12 " 138	1,656 00	
Crebbin, W C	Clerk 12 months @ $96, less military pay 304	848 00	
Ormston, C M	do 12 months 96	1,152 00	
Smith, J F	do 12 " 91	1,092 00	
Broughton, J F	do 12 " 90	1,080 00	
McPhee, E M	Stenographer 12 " 60	720 00	
Offin, E B	Janitor 12 " 75	900 00	
	Total, $9,636		
	FERNIE.		
Hewat, R	Government Agent 12 months @ $166.66	2,000 00	
Watson, A H	Clerk and Registrar 12 " 90	1,080 00	
Kennedy, M J	Stenographer 10 " 55	550 00	
Johnston, J J	Janitor 12 " 75	900 00	
Cole, T	Clerk 10 " 20 d. 90	958 05	
	Total, $5,488.05		
	GOLDEN.		
Bradley, W W	Government Agent 12 months @ $150	1,800 00	
Bacon, F H	Mining Recorder and Assessor 10 " 15 d. 140	1,469 94	
Bulman, J	Clerk 12 " 141	1,692 00	
Linney, J R	Janitor 12 " 65	780 00	
	Total, $5,741.94		
	WILMER (SUB-AGENCY).		
Lang, W A	Mining Recorder, Registrar, etc. 9 mos. 2 d. @$147	1,332 48	
Sandilands, E M	do 2 months 147	294 00	
	Total, $1,626.48		
	Fairview Agency.		
Brown, J R	Government Agent 12 months @ $171.66	2,060 00	
Tweedie, R D	Mining Recorder and Assessor 12 " 110	1,320 00	
Atkins, R S	Clerk 12 " 118	1,416 00	
	Total, $4,796		
	Fort Fraser Agency.		
Hooson, J E	Government Agent 8 months @ $176.66	1,413 28	
Alexander, J S	Clerk and Mining Recorder 8 " 122	976 00	
do	Government Agent and Mining Recorder 4 " 132	528 00	
	Total, $2,917.28		
	Grand Forks Agency.		
Almond, S R	Government Agent 12 months @ $150.33	1,804 00	
Harrison, E	Clerk 12 months @ $96, less military pay 365	787 00	
Mudge, C	do 12 months 75	900 00	
Easton, W O	Janitor 12 " 70	840 00	
	Total, $4,331		
	Greenwood Agency.		
Dewdney, W R	Government Agent and Mining Recorder 12 months @ $145.33	1,744 00	
McCurragh, P H	Clerk and Janitor 12 " 111	1,332 00	
	Total, $3,076		
	Hazelton Agency.		
Hoskins, S H	Government Agent. 12 months @ $168.33	2,020 00	
Kirby, J E	Mining Recorder and Registrar 12 " 117	1,404 00	
Welch, H	Assessor and Collector 12 " 143.33	1,720 00	
Hall, F J	Clerk 7½ " 90	675 00	
Wright, C V	do 12 " 90	1,080 00	
Reid, C	do 12 " 90	1,080 00	
Ward, M	Stenographer 12 " 80	960 00	
	Total, $8,939		
	Carried forward	.....	1250651 39

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		1250651 39
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 15.—Government Agencies.—Continued.		
	Lillooet District Agencies.		
	CLINTON.		
Lunn, E C	Government Agent ... 12 months @ $155.33	1,864 00	
Coleman, J	Clerk ... 12 months @ $102, less military pay 365	859 00	
Dorrell, R A	do ... 12 months 96	1,152 00	
	Total, $3,875		
	LILLOOET (SUB-AGENCY).		
Dunlop, J	Assessor and Mining Recorder ... 11½ months @ $150	1,725 00	
Bellamy, W R	Clerk ... 12 " 90	1,080 00	
	Total, $2,805		
	Nanaimo Agency.		
Kirkup, J	Government Agent ... 7 months @ $196.66	1,376 62	
Smith, S McB	do ... 4 " 187.66	750 72	
Clark, J T	Clerk ... 1 " 96	96 00	
Stewart, L	Stenographer ... 12 " 65	780 00	
Edwards, E	Assessor and Collector ... 12 " 158.33	1,900 00	
Henderson, C C	Janitor and Messenger ... 12 " 75	900 00	
	Total, $5,803.34		
	Nicola Agency.		
Rolfe, W N	Government Agent and Assessor ... 12 months @ $166.66	2,000 00	
Harbord, V H	Clerk ... 12 " 96	1,152 00	
	Total, $3,152		
	Princeton Agency.		
Hunter, H	Government Agent, Assessor, etc ... 12 months @ $154	1,848 00	
Wood, J B	Junior Clerk ... 12 " 80	960 00	
	Total, $2,808		
	Skeena Agencies.		
	PRINCE RUPERT.		
McMullin, J H	Government Agent ... 12 months @ $171.66	2,060 00	
Homer, C W	Assessor and Collector ... 12 " 163.33	1,960 00	
Conway, J	Mining Recorder ... 12 " 154	1,848 00	
Davies, G M	Clerk ... 12 " 101	1,212 00	
McMaster, J A	do ... 11 " 96	1,056 00	
Strang, D	do ... 11 " 10 d. 90	1,019 32	
Whitley, W R	do ... 12 months @ $90, less military pay 335	745 00	
Gauld, C W W	do ... 12 months 90	1,080 00	
Scoble, R L	do ... 12 " 90	1,080 00	
McDonald, L	Janitor ... 12 " 75	900 00	
	Total, $12,960.32		
	QUEEN CHARLOTTE ISLANDS (SUB-AGENCY).		
Sandilands, E M	Government Agent, Gold Commissioner, etc ... 10 months @ $147	1,470 00	
Barge, J L	Mining Recorder, etc ... 2 " 40	80 00	
	Total, $1,550		
	Vernon Agency.		
Norris, L	Government Agent ... 12 months @ $171.66	2,060 00	
Somerville, S	Clerk ... 11½ " 101	1,161 50	
Wilmot, H F	Mining Recorder and Assessor ... 12 " 162.66	1,952 00	
Simms, J G	Clerk ... 12 months @ $96, less military pay 216	940 00	
Smith, A B	Stenographer ... 12 months 65	780 00	
Ross, J E	Engineer and Fireman ... 8 " 75	600 00	
Moore, S H	Janitor ... 12 " 75	900 00	
Wightman, S B	Clerk ... 2 " 13 d. 60	145 15	
	Total, $8,538.65		
	Carried forward		1250651 39

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		1250651 39
	II.—CIVIL GOVERNMENT (SALARIES).—*Continued.*		
	Vote No. 15.—Government Agencies.—Continued.		
	West Kootenay Agencies.		
	KASLO.		
Stenson, R J	Government Agent ... 12 months @ $168.33	2,020 00	
McQueen, A	Mining Recorder and Assessor ... 12 " 127	1,524 00	
Green, W J	Clerk ... 12 " 96	1,152 00	
Whellams, H S	do ... 12 " 86	1,032 00	
Fawcett, C M	Stenographer ... 12 " 80	960 00	
Cockle, R A	Janitor ... 12 " 75	900 00	
	Total, $7,588		
	NEW DENVER (SUB-AGENCY).		
McInnes, A	Mining Recorder ... 12 months @ $128	1,536 00	
	TROUT LAKE (SUB-AGENCY).		
Vars, A N	Mining Recorder ... 5 mos. 4 d. @ $90	462 00	
Brindle, A St C	do ... 6 " 26 d. 90	618 00	
	Total, $1,080		
	NELSON.		
Cartmel, J	Government Agent ... 12 months @ $180.66, less military pay $670	1,497 92	
Jarvis, S S	Mining Recorder and Assessor ... 12 months @ 158.33	1,900 00	
Acland, J B	Clerk ... 12 months @ $96, less military pay 730	422 00	
Cope, E T	do ... 12 months 90	1,080 00	
Millar, G S	do ... 12 " 90	1,080 00	
Wightwick, L	do ... 12 " 90	1,080 00	
Betts, B B	Stenographer ... 12 " 60	720 00	
McFarland, E	do ... 12 " 55	660 00	
McKim, D J	Janitor ... 12 " 75	900 00	
	Total, $9,339.92		
	REVELSTOKE.		
Gordon, R	Government Agent ... 12 months @ $180.66	2,168 00	
Squarebriggs, R S	Mining Recorder ... 12 " 100	1,200 00	
Brown, N R	Assessor and Collector ... 12 " 146	1,752 00	
Aman, C J	Clerk ... 12 " 90	1,080 00	
Fleetham, M	Stenographer ... 12 " 55	660 00	
Bond, E H	Janitor ... 12 " 75	900 00	
	Total, $7,760		
	ROSSLAND.		
Townsend, H R	Government Agent and Assessor ... 12 months @ $163.33	1,960 00	
Job, E	Clerk ... 12 " 140	1,680 00	
Morrell, M S	do ... 12 " 96	1,152 00	
Williams, A	Janitor ... 12 " 75	900 00	
	Total, $5,692		
	Westminster District Agencies.		
	NEW WESTMINSTER.		
Campbell, F C	Government Agent ... 12 months @ $191.66	2,300 00	
Wintemute, I	Clerk ... 12 " 131	1,572 00	
Gray, A B	do ... 12 " 75	900 00	
Fehner, W LeRoy	Junior Clerk ... 12 months @ $65, less military pay 365	415 00	
Creighton, J W	Assessor and Collector ... 12 months 173.66	2,084 00	
Jones, W A D	Deputy Assessor and Collector ... 12 " 154	1,848 00	
Young, J A	Clerk ... 12 " 90	1,080 00	
Calbick, C H	Janitor and Messenger ... 12 " 85	1,020 00	
Montgomery, J A	Night Janitor ... 12 " 65	780 00	
Dickson, M I	Stenographer ... 1 " 60	60 00	
	Total, $12,059		
	VANCOUVER.		
Mahony, J	Government Agent ... 12 months @ $186.66	2,240 00	
Grant, A P	Clerk and Mining Recorder ... 12 " 139	1,668 00	
Burgoyne, R A	Clerk 2 months @ $96; allowance while on military duty, 10 " 30	492 00	
Eden, F A	do ... 11 months 21 days @ $96, less military pay 369.46	753 74	
Blake, R	do ... 12 months 90	1,080 00	
Behnsen, F H	Junior Clerk ... 1 " 65	65 00	
Latimer, A M	Stenographer ... 12 " 60	720 00	
	Carried forward		1250651 39

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		1250651 39
	II.—CIVIL GOVERNMENT (SALARIES).—*Concluded.*		
	Vote No. 15.—Government Agencies.—Concluded.		
	Westminster District Agencies.—Concluded.		
	VANCOUVER.—*Concluded.*		
Menendez, M E	Stenographer ... 12 months @ $ 60	720 00	
Burnett, F	Assessor and Collector ... 3 " 175	525 00	
Clint, J	Deputy Assessor and Collector ... 12 " 147	1,764 00	
Rankin, J	Clerk ... 12 " 135	1,620 00	
Brooke, H	do ... 12 " 117	1,404 00	
McLean, F	do ... 12 " 107	1,284 00	
Travis, J	do ... 12 " 97	1,164 00	
McGuire, C	do ... 4 " 90	360 00	
Wallace, W H	do ... 12 months @ $90, less military pay 206	874 00	
Rogers, G T	do ... 12 months 90	1,080 00	
Davies, A A	do ... 12 " 90	1,080 00	
Wightman, S B	Stenographer ... 9 " 18 d. 60	574 85	
	Total, $19,468.59		
	VANCOUVER COURT-HOUSE ATTENDANTS.		
Cameron, J	Engineer ... 12 months @ $125	1,500 00	
Campbell, C	Fireman ... 12 months @ $80, less military pay 365	595 00	
Goodman, T G	Elevator Attendant ... 12 months 65	780 00	
Robinson, J J	do ... 8 " 65	520 00	
McLennan, H G A	Chief Janitor ... 12 " 100	1,200 00	
Thomas, D	Night Fireman and Janitor ... 12 months @ $80, less military pay 59	901 00	
Moseley, L	Janitor and Gardener ... 12 " 75	900 00	
Powell, T R	Janitor ... 12 " 75	900 00	
Smith, F	do ... 12 months $75, less military pay 21	879 00	
Dagnall, S	do ... 12 months @ 75	900 00	
Turton, W P	do ... 12 " 75	900 00	
Whitehouse, T E	do ... 12 " 70	840 00	
Wallace, R	do ... 12 " 75	900 00	
Cox, H C	do ... 12 " 75	900 00	
Hardwicke, F T	do ... 12 " 65	780 00	
Ferguson, S	do ... 12 " 65	780 00	
McCully, J	do ... 12 " 65	780 00	
Greenwood, J C	do ... 12 " 65	780 00	
Burns, H M	Carpenter ... 12 " 90	1,080 00	
Fox, J	Nightwatchman ... 12 " 65	780 00	
Evans, A M	Usher ... 12 " 64	768 00	
	Total, $18,363		
	Yale District Agencies.		
	ASHCROFT.		
Christie, H P	Government Agent and Assessor ... 12 months @ $173.66	2,084 00	
Lawson, H S	Junior Clerk ... 12 " 60	720 00	
	Total, $2,804		
	KAMLOOPS.		
Fisher, E	Government Agent ... 12 months @ $170	2,040 00	
Brown, L S	Mining Recorder and Assessor ... 12 " 102	1,224 00	
Bethune, R A	Clerk and Registrar ... 12 " 96	1,152 00	
Dowding, J A	Clerk ... 12 " 90	1,080 00	
Carter, I	Stenographer ... 6 " 65	390 00	
Leonard, I	do ... 5 " 26 d. 65	379 50	
Slavin, Z	do ... 12 " 50	600 00	
Collins, J V	Janitor ... 2 " 19 d. 75	197 50	
Scribner, R J	do ... 25 days 75	62 50	
Hutchinson, E C	do ... 6 months @ $70; 3 months 75	645 00	
	Total, $7,770.50		
	YALE (SUB-AGENCY).		
Dodd, L A	Mining Recorder and Collector ... 12 months @ $123	1,476 00	
			226,960 06
			1477611 45

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	III.—ADMINISTRATION OF JUSTICE (SALARIES).		
	Vote No. 16.—Stipendiary Magistrates.		
	NELSON.		
Forin, J A	Nelson ..... 12 months @ $41.66	500 00	
	PROVISIONAL.		
Jay, G	Victoria ..... 12 months @ $41.66	500 00	
Clute, J S	New Westminster ..... 12 " 20.83	250 00	
Alexander, H O	Vancouver ..... 12 " 41.66	500 00	
Hood, A S	Rivers Inlet ..... 3 " 10 d. 100	332 26	
Quinlan, W J	Ocean Falls ..... 8 " 13 d. 25	210 48	
	Total, $1,792.74		2,292 74
	Vote No. 17.—County Gaols.		
	Kamloops Gaol.		
Noble, A	Warden ..... 12 months @ $110	1,320 00	
Horne, J J	Gaoler ..... 12 " 86	1,032 00	
Smith, A	do ..... 12 months @ $86, less military pay	730	302 00
Archer, A	do ..... 12 " 80, "	730	230 00
Morant, L A	do ..... 2 mos. 28 d.	75	220 00
Parker, C M	Convict Guard ..... 12 " 86	1,032 00	
Jarvis, T J	do ..... 9 " 75	675 00	
Steele, A	Matron ..... 12 " 50	600 00	
Burke, J W C	Guard ..... 9 " 75	675 00	
Buse, F	Special Guard ..... 3 " 75	225 00	
Morrill, J H	do ..... 5 " 75	375 00	
Brown, W H	do ..... 5 " 75	375 00	
	Total, $7,061		
	Nelson Gaol.		
Jarvis, W R	Warden ..... 12 months @ $115	1,380 00	
Hardy, J T	Gaoler ..... 12 " 90	1,080 00	
Pitchford, A A	do ..... 12 " 86	1,032 00	
Elliott, R A	do ..... 12 " 86	1,032 00	
Gagnon, C V	Convict Guard ..... 12 " 85	1,020 00	
	Total, $5,544		
	New Westminster Gaol.		
Turnbull, A T	Warden ..... 12 months @ $110	1,320 00	
McKercher, A	Gaoler ..... 12 " 86	1,032 00	
Gray, A	do ..... 12 months @ $80, less military pay	325.01	634 99
Dunbrack, L G	Convict Guard ..... 12 months 86		1,032 00
Best, R	do ..... 12 " 80		960 00
Stapleton, C	do ..... 12 " 80		960 00
Haslam, T W	do ..... 12 " 80		960 00
Vince, G	do ..... 12 " 75		900 00
Voisey, W	do ..... 12 " 75		900 00
	Total, $8,698.99		
	Oakalla Prison Farm.		
McMynn, W G	Warden ..... 12 months @ $140	1,680 00	
McGowan, D	Instructor ..... 12 " 80	960 00	
Whebell, C	Gaoler ..... 1 " 75	75 00	
Taylor, F	do ..... 12 months @ $75, less military pay	212	688 00
Walmsley, J C	do ..... 12 months 75		900 00
Leisk, J G	do ..... 12 months @ $75, less military pay	365	535 00
Lowe, T B	Guard ..... 7 months 4 days @ $75, "	218	317 00
Spilling, T H	do ..... 7 months @ $75. "	235.65	289 35
Eldridge, J	do ..... 12 months	75	900 00
Bonsor, M W	do ..... 12 " 75		900 00
Hekmiller, F	do ..... 4 " 75		300 00
Capps, W	do ..... 12 " 75		900 00
MacLean, J A	do ..... 12 " 75		900 00
Amos, L	do ..... 12 " 75		900 00
Bolt, C A	do ..... 12 " 70		840 00
Millman, J	do ..... 12 " 70		840 00
Prior, F L	do ..... 12 " 70		840 00
Emery, F B	do ..... 12 " 70		840 00
Smith, J P	do ..... 5 " 70		350 00
Long, G R	do ..... 12 " 70		840 00
Armstrong, J	do ..... 2 " 70		140 00
Coppin, E G	Tailor ..... 11 " 21 d. 70		817 42
Gunzeon, J	Plumber ..... 6 " 16 d. 75		488 70
	Carried forward		2,292 74

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		2,292 74
	III.—ADMINISTRATION OF JUSTICE (SALARIES).—*Concluded.*		
	Vote No 17.—County Gaols.—Concluded.		
	Oakalla Prison Farm.—Concluded.		
Crockett, R C	Cabinetmaker 9 months @ $ 70	630 00	
Lewis, O G	Engineer 12 " 90	1,080 00	
Warne, J T	Assistant Engineer 12 " 70	840 00	
Kimber, A	Matron 12 " 60	720 00	
Woodward, A	Assistant Matron 12 " 50	600 00	
	Total, $20,110.47		
	Saanich Prison Farm.		
Munro, J	Warden 12 months @ $120	1,440 00	
Bothwell, J J	Gaoler 12 " 90	1,080 00	
Delahunty, J J	do 12 " 86	1,032 00	
Harrison, J H	do 12 " 85	1,020 00	
Smith, R G	do 12 " 80	960 00	
Hunter, J H	Convict Guard 12 " 90	1,080 00	
Conway, E	do 11 " 9 d. 85	962 32	
Carter, W	do 12 " 85	1,020 00	
Rollo, J	do 12 " 85	1,020 00	
Sands, B	do 12 months @ $85, less military pay 335	685 00	
Corcoran, J	do 12 months @ 85	1,020 00	
Spowart, R B	do 12 months @ $75, less military pay 365	535 00	
Headdy, J	do 12 " 80, " 365	595 00	
Baxter, R B	Special Guard 1 month 18 d. 75	120 00	
Messer, A C	Engineer 12 months 100	1,200 00	
Luscombe, C F	Assistant Engineer 12 " 75	900 00	
McKinley, D	Special Guard 11 " 75	825 00	
	Total, $15,494.32		56,908 78
			59,201 52
	IV.—LEGISLATION.		
	Vote No. 18.—Sessional Salaries.		
Weart, Hon J W	Speaker of the House	1,800 00	
Keen, J	Deputy Speaker of the House	500 00	
Fell, Thornton	Clerk of the House	1,200 00	
Courtney, C K	Law Clerk	600 00	
Bawden, E J	Sergeant-at-Arms	400 00	
Gaunt, T W	Assistant Sergeant-at-Arms	150 00	
Brewster, J A	Doorkeeper	200 00	
Berry, T R	Messenger	200 00	
Brandon, G	Page	40 00	
Brown, R	do	40 00	
Davis, C	do	40 00	
Kay, T	do	40 00	
McPherson, A	do	40 00	
McNaughton, E	do	40 00	
			5,290 00
	Vote No. 19.—Indemnity to Members.		
Anderson, F W	Sessional allowance	1,600 00	
Barrow, E D	do	1,600 00	
Bell, G	do	1,600 00	
Bowser, W J	do	1,600 00	
Brewster, Hon H C	do	1,600 00	
Buckham, J A	do	1,600 00	
Cowper, J S	do	1,600 00	
Farris, Hon J W deB	do	1,600 00	
Fisher, A I	do	1,600 00	
Hall, H C	do	1,600 00	
Hanes, G S	do	1,600 00	
Hart, Hon J	do	1,600 00	
Hayward, W H	do	1,600 00	
Jackson, M B	do	1,600 00	
Jones, J W	do	1,600 00	
Keen, J	do	1,600 00	
King, Hon J H	do	1,600 00	
Macdonald, M A	do	1,600 00	
Macdonald, K C	do	1,600 00	
MacKenzie, F J A	do	1,600 00	
MacLean, Hon J D	do	1,600 00	
	Carried forward		5,290 00

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward		5,290 00
	IV.—LEGISLATION.—*Continued.*		
	***Vote No.—Indemnity to Members.*—Concluded.**		
McDonald, A	Sessional allowance	1,600 00	
McGeer, G G	do	1,600 00	
McIntosh, J W	do	1,600 00	
Manson, A M	do	1,600 00	
Mobley, F H	do	1,600 00	
Nelson, C F	do	1,600 00	
Oliver, Hon J	do	1,600 00	
Pattulo, Hon T D	do	1,600 00	
Pauline, F A	do	1,600 00	
Pooley, R H	do	1,600 00	
Rose, W O	do	1,600 00	
Ross, W R	do	1,600 00	
Schofield, J H	do	1,600 00	
Shatford, L W	do	1,600 00	
Sloan, Hon W	do	1,600 00	
Stewart, H	do	1,600 00	
Sutherland, W H	do	1,600 00	
Thompson, J E W	do	1,600 00	
Walters, J	do	1,600 00	
Weart, Hon J W	do	1,600 00	
Whiteside, D	do	1,600 00	
Willson, W D	do	1,600 00	
Yorston, J M	do	1,600 00	
	Total, $70,400		
	Statutory Expenditure.		
Bowser, W J	Special allowance for Session as Leader of Opposition, provided under authority of chapter 14, Statutes of 1915	1,500 00	71,900 00
	Vote No. 20.—Mileage.		
Anderson, F W	To and from Constituency	165 00	
Barrow, E D	do	77 50	
Buckham, J A	do	277 50	
Cowper, J S	do	40 00	
Farris, Hon J W deB	do	40 00	
Fisher, A I	do	400 00	
Hanes, G S	do	40 00	
Hayward, W H	do	20 00	
Jones, J W	do	252 00	
Keen, J	do	321 00	
Macdonald, M A	do	40 00	
Macdonald, K C	do	230 50	
McDonald, A	do	160 00	
McGeer, G G	do	40 00	
McIntosh, J W	do	40 00	
Manson, A M	do	326 50	
Mobley, F H	do	592 50	
Nelson, C F	do	278 00	
Rose, W O	do	320 00	
Schofield, J H	do	335 00	
Shatford, L W	do	40 00	
Stewart, H	do	100 00	
Sutherland, W H	do	230 00	
Thompson, J E W	do	328 50	
Walters, J	do	160 00	
Weart, Hon J W	do	40 00	
Whiteside, D	do	46 00	
Willson, W D	do	338 50	
Yorston, J M	do	242 00	5,520 50
	Vote No. 21.—Registration of Voters.		
Pelly, J	Typing Voters' Lists, Chilliwack	50 00	
Scott, J	Services as Registrar "	75 00	
Craig, J	Typing Voters' Lists, Cowichan	39 00	
Whiting, W	Services as Registrar, Islands $75; allowance for expenses, $120	195 00	
Waugh, E	Clerical assistance, Nanaimo	10 00	
Campbell, F C	Meals for Clerks, New Westminster	75	
Dashwood-Jones, G	Clerical assistance, " 145½ days @ $ 2.50	363 75	
Berner, A	Typing Voters' Lists, Prince Rupert 11 " 3	33 00	
Graham, W	Services as Registrar, Saanich $75; allowance for expenses, 120	195 00	
Brown, J R	Travelling expenses *re* Voters' Lists, Similkameen	24 00	
	Carried forward		82,710 50

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		82,710 50
	IV.—LEGISLATION.—*Continued.*		
	Vote No. 21.—Registration of Voters.—Continued.		
Richardson, E	Typing Voters' Lists, Similkameen	33 00	
Simms, J G	Expenses, checking Voters' Lists, South Okanagan	8 00	
Dockerill, F E	Services as Registrar, Trail .. 11 months $68.75 ; allowance for expenses, $110	178 75	
do	Special allowance for typewriting Voters' Lists, Trail	20 00	
Adamson, A	Clerical assistance, Vancouver .... 11 mos 13 d. @ $107 ; 55 hours @ $1	634 50	
Angus, M E	do " ..... 6 days 3	18 00	
Ayers, E G	do " ..... 19 days @ $3 ; 22 hours .50	68 00	
Barnett, M	do " ..... 9 days 3	27 00	
Batchelor, O	do " ..... 5½ days @ $3 ; 9 hours .50	21 00	
Barton, F	do " ..... 12 days 3	36 00	
Bickford, R	do " ..... 14 days @ $3 ; 28 hours .50	56 00	
Blake, R	do " ..... 8½ " .85	7 23	
Brooks, G L	do " ..... 12½ days 3	37 50	
Bruce, J McG	do " ..... 83½ " 3	250 50	
Buckerfield, A	do " ..... 6 " 3	18 00	
Burgoyne, R A	do " ..... 19 hours .90	17 10	
Campbell, K M	do " ... 2 months 5 d. @ $65 ; 25 " .61	155 50	
Cowper, E R	do " ..... 13 days 3	39 00	
Dawson, G	do " ..... 2 " 3	6 00	
Eden, F A	do " ..... 24 hours .90	21 60	
Flumerfelt, W E	do " ..... 3 days 3	9 00	
Gilbert, H J	do " ..... 25 " 3	75 00	
Grant, A P	do " ..... 96 hours 1.32	126 72	
Grayston, R	do " ..... 7½ days 3	22 50	
Guiliany, A V	do " ..... 6 days @ $100 ; 13 hours .85	31 05	
Harris, E	do " ..... 3 days 3	9 00	
Hillman, E	do " ..... 3 " 3	9 00	
Kelly, W H	do " ..... 6½ " 3	19 50	
Kyle, L C	do " ..... 53 " 3	159 00	
Langley, M	do " ..... 17⅔ days @ $3 ; 16 hours .50	61 25	
Latimer, M	do " ..... 16 " .57	9 12	
Mahony, J	do " ..... 96 " 1.77	169 92	
Matthews, D	do " ..... 7 days @ $3 ; 16 " .50	29 00	
Matthews, G	do " ..... 7 " 3 ; 16 " .50	29 00	
Menendez, M E	do " ..... 15 " .57	8 55	
Merrill, M A	do " ..... 8 days 3	24 00	
Miller, E	do " ..... 6 days @ $3 ; 16 hours .50	26 00	
Miller, S B	do " ..... 9 days 3	27 00	
Moore, W McL	do " ..... 68¼ days @ $3 ; 25 hours .50	217 25	
McClay, T	do " ..... 3½ days 3	10 50	
McHeffey, M	do " ..... 6 " 3	18 00	
McLean, E E	do " ..... 1 " 3	3 00	
McLennan, L	do " ..... 3 " 3	9 00	
McLeod, C	do " ..... 13 days @ $3 ; 16 hours .50	47 00	
MacPhail, K	do " ..... 9 days 3	27 00	
McPherson, C M	do " ..... 5 " 30	9 70	
McRae, L	do " ..... 7 days @ $3 ; 16 hours .50	29 00	
Nesbit, E	do " ..... 8 days 3	24 00	
Pascoe, M G	do " .. 3 months 19 d. @ $96 ; 68½ hours .90	408 20	
Patterson, R G	do " ..... 7 days 3	21 00	
Pattison, A M	do " ..... 2 " 70	4 50	
Pilling, E	do " ..... 13½ days @ $3 ; 28 hours .50	54 50	
Reid, C	do " ..... 3 days 3	9 00	
Richardson, J	do " ..... 32 " 3	96 00	
Ryder, J	do " ..... 16½ days @ $3 ; 25 hours .50	62 00	
Seaton, J M	do " ..... 3 days 3	9 00	
Seymour, M A	do " ..... 45 days @ $3 ; 19 hours .50	144 50	
Smith, R	do " ..... 9 days 3	27 00	
Shoebotham, O B	do " ..... 50 " 3	150 00	
Stitt, N E	do " ..... 6 " 3	18 00	
Sutton, J M	do " ..... 6 days $90 ; 13 hours 85.	28 85	
Thomas, L	do " ..... 9 days 3	27 00	
Trousdale, W E	do " ..... 7½ " 3	22 50	
Urquhart, H	do " ..... 8 " 3	24 00	
Ward, W	do " ..... 48 " 3	144 00	
White, A H	do " ..... 33 " 3	99 00	
Wood, E J	do " ..... 2 " 90	5 80	
Clark & Stuart Co, Ltd	2,000 envelopes for mailing objections, Vancouver	5 00	
Cunninghams, Ltd	Scissors, brushes, Vancouver	5 10	
Hewitt Co, Ltd, G H	Rubber stamps and ink, "	2 20	
Roedde, Ltd, G A	Binding Voters' Lists, "	38 25	
United Typewriter Co, Ltd	Rent of typewriters, "	108 00	
Universal Multigraphing Co	Multigraphing "Forms of Objection," Vancouver	45 40	
Drake, F T	Services as Stenographer, Victoria ..... 30 days @ $ 3	90 00	
Hall, W P	Clerical assistance, Victoria .... 7½ days @ $3=$22.50 ; 18 hrs. overtime 11.60	34 10	
Hewson, F J	do " ..... 5½ days 3	16 50	
Kay, E P	do " ..... 65½ days @ $3 ; 14 hrs. overtime 9	205 50	
	Carried forward		82,710 50

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	82,710 50
	IV.—LEGISLATION.—*Continued.*		
	Vote No. 21.—Registration of Voters.—Concluded.		
Moore, W W	Clerical assistance, Victoria ..... 14½ days @ $3; 18 hrs. overtime $11.55	55 05	
Norman, G	do " ..... 24 days 3	72 00	
Pollok, H	do " ..... 62½ days @ $3; 11 hrs. overtime 7.05	194 55	
Williams, E G	do " ..... 159 " 3; 11 " " 7.05	484 05	
		6,587 79	
	Cr. Amounts received from Dominion Government for sale of Voters' Lists...	4,063 43	
			2,524 36
	Vote No. 22.—Expenses of Elections.		
	ALBERNI ELECTORAL DISTRICT.		
Sproat, A	Returning Officer's fee	250 00	
Gibson, W F	Election Clerk	100 00	
Pay-lists	Deputy Returning Officers, 14 @ $10	140 00	
do	Poll Clerks, 16 @ $5	80 00	
do	Expressage on ballot-boxes, fixing up booths, telegrams, meals, livery-hire, etc...	448 93	
Pt Alberni Ptg & Pub Co	Printing Voters' Lists, $140; printing ballots, $15.	155 00	
	Total, $1,173.93		
	ATLIN ELECTORAL DISTRICT.		
Young, H	Returning Officer	250 00	
MacInnes, M	Deputy Returning Officer	150 00	
Hathorn, W C S	Election Clerk	10 00	
Pay-lists	Deputy Returning Officers, 17 @ $10	170 00	
do	Poll Clerks, 17 @ $5	85 00	
do	Travelling expenses, telegrams, meals, expressage on ballot-boxes, etc	1,400 60	
Franks, A O	Printing Voters' Lists	110 00	
	Total, $2,175.60		
	CARIBOO ELECTORAL DISTRICT.		
Vaughan, A S	Returning Officer	250 00	
Pay-lists	Deputy Returning Officers, 19 @ $10	190 00	
do	Poll Clerks, 18 @ $5	90 00	
do	Travelling expenses, hire of polling-stations, printing, ballot-boxes, etc	620 95	
Cariboo Observer	Printing Voters' Lists	75 00	
	Total, $1,225.95		
	CHILLIWACK ELECTORAL DISTRICT.		
Robertson, J C	Returning Officer	200 00	
Munro, J	Election Clerk	75 00	
Pay-lists	Deputy Returning Officers, 21 @ $10	210 00	
do	Poll Clerks, 21 @ $5	105 00	
do	Travelling expenses, rents, printing ballots, distributing and collecting ballot-boxes	271 30	
Chilliwack Progress	Printing Voters' Lists, cards for polling-booths	176 50	
	Total, $1,037.80		
	COLUMBIA ELECTORAL DISTRICT.		
Pitts, J C	Returning Officer	250 00	
Pay-lists	Deputy Returning Officers, 16 @ $10	160 00	
do	Poll Clerks, 17 @ $5	85 00	
do	Rents, auto and livery hire, collecting boxes, etc	445 45	
Golden Star Pub Co, Ltd	Printing Voters' Lists, ballots, and poll-books	145 00	
	Total, $1,085.45		
	COMOX ELECTORAL DISTRICT.		
Bate, T E	Returning Officer	250 00	
Dunn, W R	Election Clerk	10 00	
Pay-lists	Deputy Returning Officers, 50 @ $10	500 00	
do	Poll Clerks, 50 @ $5	250 00	
Thulin Bros	Charter of tugs "City of Lund," $861; "Cypress Queen," $441	1,302 00	
Sundry persons	Auto-hire, posting and mailing notices, telegrams, expressage, etc	532 75	
Johnson, J	Messenger with ballot-boxes ..... 21 days @ $5	105 00	
Parks, F	do ..... 21 " 5	105 00	
Islander Ptg & Pub Co	Printing Voters' Lists, ballots, etc	287 70	
	Total, $3,342.45		
	Carried forward	.....	85,234 86

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	85,234 86
	IV.—LEGISLATION.—*Continued.*		
	Vote No. 22.—Expenses of Elections.—Continued.		
	COWICHAN ELECTORAL DISTRICT.		
Miller, E P	Returning Officer	200 00	
do	(Paid) Election Clerk	50 00	
Pay-lists	Deputy Returning Officers, 9 @ $10	90 00	
do	Poll Clerks, 10 @ $5	50 00	
Sundry persons	Rents, meals, auto and livery hire, etc	294 00	
Cowichan Leader	Printing Voters' Lists	120 00	
	Total, $804		
	CRANBROOK ELECTORAL DISTRICT.		
Shankland, A C	Returning Officer	200 00	
Pay-lists	Deputy Returning Officers, 19 @ $10	190 00	
do	Poll Clerks, 19 @ $5	95 00	
do	Election Clerk	150 00	
Sundry persons	Expenses, distributing and collecting boxes, and establishing booths, rents, meals, etc	947 55	
Ward, C R	Returning Officer (by-election)	75 00	
Pay-list	Election Clerk (by-election)	25 00	
Sundry persons	Auto-hire, meals, printing, etc. (by-election)	121 70	
Cranbrook Herald	Printing Voters' Lists	130 00	
Sullivan Quick Print	do	160 00	
	Total, $2,094.25		
	DELTA ELECTORAL DISTRICT.		
Wade, E T	Returning Officer	200 00	
Wilson, J J	Election Clerk	125 00	
Pay-lists	Deputy Returning Officers, 33 @ $10	330 00	
do	Poll Clerks, 35 @ $5	175 00	
Sundry persons	Rents, ballot-boxes, livery-hire, telegrams, stationery, meals, etc	1,066 84	
Columbia Co, Ltd	Printing Voters' Lists, ballots, etc	252 50	
	Total, $2,149.34		
	DEWDNEY ELECTORAL DISTRICT.		
Catherwood, J A	Returning Officer	200 00	
Bush, E	Election Clerk	49 00	
Pay-lists	Deputy Returning Officers, 26 @ $10	260 00	
do	Poll Clerks, 26 @ $5	130 00	
Sundry persons	Rents, meals, fares, telegrams, etc	570 85	
Columbia Co, Ltd	Printing Voters' Lists, ballots	233 00	
Ferguson, H	Returning Officer (by-election)	75 00	
Croke, C H	Election Clerk (by-election)	35 00	
Sundry persons	Rents, auto-hire, expressage, etc. (by-election)	43 55	
	Total, $1,596.40		
	ESQUIMALT ELECTORAL DISTRICT.		
Anderson, R A	Returning Officer	200 00	
Cave, A E	Election Clerk	75 00	
Pay-lists	Deputy Returning Officers, 17 @ $10	170 00	
do	Poll Clerks, 17 @ $5	85 00	
Sundry persons	Rents, travelling expenses, meals, auto and livery hire, etc	613 36	
	Total, $1,143.36		
	FERNIE ELECTORAL DISTRICT.		
Marshall, J H	Returning Officer	250 00	
Perry, W	Election Clerk	50 00	
Pay-lists	Deputy Returning Officers, 24 @ $10	240 00	
do	Poll Clerks, 24 @ $5	120 00	
Sundry persons	Rents, auto and livery hire, meals, etc	386 41	
Fernie Free Press	Printing Voters' Lists, ballots, etc	456 50	
	Total, $1,502.91		
	FORT GEORGE ELECTORAL DISTRICT.		
Peters, E S	Returning Officer	250 00	
Pay-list	Election Clerk..... 57 days @ $3	171 00	
do	Deputy Returning Officers, 32 @ $10	320 00	
do	Poll Clerks, 37 @ $5	185 00	
Hamilton, A G	Trip to Peace River	570 55	
Sundry persons	Rents, transportation of ballot-boxes, 36 ballot-boxes, meals, etc.	649 75	
Prince George Star	Supplementary lists, lists of persons' names misspelt	12 00	
	Total, $2,158.30		
	Carried forward	.....	85,234 86

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	85,234 86
	IV.—LEGISLATION.—*Continued.*		
	Vote No. 22.—Expenses of Elections.—Continued.		
	GRAND FORKS ELECTORAL DISTRICT.		
McCallum, D	Returning Officer	200 00	
Ryley, J H	Election Clerk	50 00	
Pay-lists	Deputy Returning Officers, 9 @ $10	90 00	
do	Poll Clerks, 9 @ $5	45 00	
Sundry persons	Rents, delivering and collecting boxes, meals, printing, stationery, etc	258 06	
Grand Forks Gazette	Printing Voters' Lists	100 00	
	Total, $743.06		
	GREENWOOD ELECTORAL DISTRICT.		
Coles, J L	Returning Officer	200 00	
King, C	Election Clerk	50 00	
Pay-list	Deputy Returning Officers, 16 @ $10	160 00	
do	Poll Clerks, 15 @ $5	75 00	
Sundry persons	Rents, livery-hire, meals, stationery, etc	371 68	
White, J L	Returning Officer (by-election) $75; Election Clerk, $25	100 00	
	Total, $956.68		
	ISLANDS ELECTORAL DISTRICT.		
Collins, J T	Returning Officer	200 00	
Pay-list	Election Clerk	25 00	
do	Deputy Returning Officers, 13 @ $10	130 00	
do	Poll Clerks, 13 @ $5	65 00	
Sundry persons	Rents, launch and livery hire, meals, etc	202 90	
Sidney Ptg & Pub Co	Printing Voters' Lists	85 00	
	Total, $707.90		
	KAMLOOPS ELECTORAL DISTRICT.		
Rowlands, D W	Returning Officer	250 00	
Burton, S C	Election Clerk	100 00	
Pay-lists	Deputy Returning Officers, 52 @ $10	520 00	
do	Poll Clerks, 52 @ $5	260 00	
Sundry persons	Rents, printing, meals, fares, expressage, etc	644 77	
Kamloops Standard-Sentinel	Printing Voters' Lists, ballots, etc	306 00	
	Total, $2,080.77		
	KASLO ELECTORAL DISTRICT.		
Robb, W G	Returning Officer	250 00	
Burgess, W H	Election Clerk	100 00	
Pay-list	Deputy Returning Officers, 25 @ $10	250 00	
do	Poll Clerks, 25 @ $5	125 00	
Sundry persons	Rents, meals, fares, telegrams, expressage, etc	431 65	
Creston Review	Printing Voters' Lists	90 00	
Kootenaian, The	Printing ballots, postage	53 75	
	Total, $1,300.40		
	LILLOOET ELECTORAL DISTRICT.		
Phair, C	Returning Officer	200 00	
Bellamy, W R	Election Clerk	10 00	
Pay-list	Deputy Returning Officers, 26 @ $10	260 00	
do	Poll Clerks, 24 @ $5	120 00	
Sundry persons	Rents, expressage on ballot-boxes, fares, etc	320 88	
Lillooet Prospector	Printing Voters' Lists and ballots	84 00	
	Total, $994.88		
	NANAIMO ELECTORAL DISTRICT.		
Peto, F G	Returning Officer	200 00	
Woodward, H W	Election Clerk	30 00	
Pay-list	Deputy Returning Officers, 9 @ $10	90 00	
do	Poll Clerks, 10 @ $5	50 00	
Sundry persons	Ballot-boxes, fixing up booths, meals, expressage, printing, etc	206 40	
Nanaimo Free Press	Printing Voters' Lists	198 00	
Booth, T B	Returning Officer (by-election)	75 00	
Reynolds, F L	Election Clerk (by-election)	25 00	
	Total, $874.40		
	Carried forward	.....	85,234 86

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	85,234 86
	IV.—LEGISLATION.—*Continued.*		
	Vote No. 22.—Expenses of Elections.—Continued.		
	NELSON ELECTORAL DISTRICT.		
Horsted, G	Returning Officer	200 00	
McFarland, D A	Election Clerk	100 00	
Pay-list	Deputy Returning Officers, 8 @ $10	80 00	
do	Poll Clerks, 8 @ $5	40 00	
Sundry persons	Rents, fixing up booths, meals, cartage, police, etc	270 59	
Nelson Daily News	Printing Voters' Lists and ballots	172 00	
	Total, $862.59		
	NEWCASTLE ELECTORAL DISTRICT.		
Anderson, W	Returning Officer	200 00	
Robertson, A D	Election Clerk	25 00	
Pay-lists	Deputy Returning Officers, 7 @ $10	70 00	
do	Poll Clerks, 6 @ $5	30 00	
Sundry persons	Posting Proclamations, auto and livery hire, rents, meals, etc	230 56	
Ladysmith Chronicle	Printing Voters' Lists and ballots	117 50	
Semi-Weekly Chronicle	do	10 00	
	Total, $683.06		
	NEW WESTMINSTER ELECTORAL DISTRICT.		
McKenzie, D E	Returning Officer	200 00	
MacQuarrie, N H	Election Clerk	100 00	
Pay-list	Deputy Returning Officers, 12 @ $10	120 00	
do	Poll Clerks, 12 @ $5	60 00	
Sundry persons	Rents, erecting booths, meals, printing, etc	269 71	
Columbian Co, Ltd	Printing Voters' Lists and ballots	270 50	
	Total, $1,020.21		
	NORTH OKANAGAN ELECTORAL DISTRICT.		
Shatford, S A	Returning Officer	250 00	
Pay-list	Election Clerk	75 00	
do	Deputy Returning Officers, 30 @ $10	300 00	
do	Poll Clerks, 30 @ $5	150 00	
Sundry persons	Rents, distributing and collecting ballot-boxes, police, repairing boxes, etc	567 95	
Vernon News Pg & PubCo	Printing Voters' Lists and ballots	250 50	
	Total, $1,593.45		
	NORTH VANCOUVER ELECTORAL DISTRICT.		
Wright, H C	Returning Officer	250 00	
Dodds, J	Election Clerk	75 00	
Pay-list	Deputy Returning Officers, 24 @ $10	240 00	
do	Poll Clerks, 24 @ $5	120 00	
Sundry persons	Rents, erecting booths, distributing and collecting boxes, etc	652 45	
North Shore Press	Printing Voters' Lists	265 00	
	Total, $1,602.45		
	OMINECA ELECTORAL DISTRICT.		
Macdonald, A R	Returning Officer	250 00	
Player, A E	Election Clerk	100 00	
Pay-list	Deputy Returning Officers, 21 @ $10	210 00	
do	Poll Clerks, 19 @ $5	95 00	
Sundry persons	Rents, delivering and collecting boxes, telegrams, meals, etc	570 73	
Interior News	Printing Voters' Lists' and ballots	133 00	
	Total, $1,358.73		
	PRINCE RUPERT ELECTORAL DISTRICT.		
Stephens, M M	Returning Officer	250 00	
Fraser, C C	Election Clerk	200 00	
Pay-list	Deputy Returning Officers, 69 @ $10	690 00	
do	Poll Clerks, 62 @ $5 ; 1 @ $10	320 00	
Sundry persons	Rents, launch-hire, making, distributing, and collecting ballot-boxes, meals, postage, etc	5,247 39	
Prince Rupert Journal	Printing Voters' Lists	361 00	
Dawson, F G	Returning Officer (by-election)	150 00	
Sundry persons	Launch-hire, posting proclamations, meals, etc. (by-election)	1,337 36	
	Total, $8,555.75		
	Carried forward	.....	85,234 86

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	85,234 86
	IV.—LEGISLATION.—*Continued.*		
	Vote No. 22.—Expenses of Elections.—Continued.		
	REVELSTOKE ELECTORAL DISTRICT.		
McIntyre, J	Returning Officer	250 00	
Smythe, R M	Election Clerk	150 00	
Pay-list	Deputy Returning Officers, 28 @ $10	280 00	
do	Poll Clerks, 28 @ $5	140 00	
Sundry persons	Rents, making ballot-boxes, expressage, meals, etc	931 65	
Mail-Herald	Printing Voters' Lists	150 00	
	Total, $1,901.65		
	RICHMOND ELECTORAL DISTRICT.		
Lembke, W H	Returning Officer	200 00	
Welpton, C M	Election Clerk	75 00	
Pay-list	Deputy Returning Officers, 17 @ $10	170 00	
do	Poll Clerks, 17 @ $5	85 00	
Sundry persons	Rents, police, auto-hire, stationery, meals, etc	949 47	
Woodruff, E L	Printing Voters' Lists and ballots	402 00	
	Total, $1,881.47		
	ROSSLAND ELECTORAL DISTRICT.		
Evans, R T	Returning Officer	200 00	
Owen, G	Election Clerk	50 00	
Pay-list	Deputy Returning Officers, 6 @ $10	60 00	
do	Poll Clerks, 6 @ $5	30 00	
Sundry persons	Rents, meals, police, auto-hire, building booths, etc	109 25	
Rossland Daily Miner	Printing Voters' Lists and ballots	130 00	
	Total, $579.25		
	SAANICH ELECTORAL DISTRICT.		
Goepel, P	Returning Officer	200 00	
Carmichael, J R	Election Clerk	15 00	
Pay-list	Deputy Returning Officers, 7 @ $10	70 00	
do	Poll Clerks, 16 @ $5	80 00	
Sundry persons	Rents, meals, erecting booths, expressage, auto-hire, etc	287 40	
	Total, $652.40		
	SIMILKAMEEN ELECTORAL DISTRICT.		
McCurdy, D	Returning Officer	250 00	
Coleman, T W	Election Clerk	100 00	
Pay-list	Deputy Returning Officers, 16 @ $10	160 00	
do	Poll Clerks, 17 @ $5; 1 Presiding Officer @ $20	105 00	
Sundry persons	Livery-hire, posting proclamations, stationery, meals, etc	460 56	
Penticton Herald	Printing Voters' Lists, ballots	136 00	
	Total, $1,211.56		
	SLOCAN ELECTORAL DISTRICT.		
Tinling, J W M	Returning Officer	250 00	
Kelly, J T	Election Clerk	50 00	
Pay-list	Deputy Returning Officers, 23 @ $10	230 00	
do	Poll Clerks, 23 @ $5	115 00	
Sundry persons	Rents, posting proclamations, delivering and collecting ballot-boxes, etc	373 60	
Nelson Daily News	Printing Voters' Lists	100 00	
	Total, $1,118.60		
	SOUTH OKANAGAN ELECTORAL DISTRICT.		
Cordy, C H	Returning Officer	250 00	
Pay-list	Election Clerk	85 00	
do	Deputy Returning Officers, 16 @ $10	160 00	
do	Poll Clerks, 17 @ $5	85 00	
Sundry persons	Making, delivering, and collecting ballot-boxes, rents, police, stationery, etc	418 30	
Kelowna Record	Printing Voters' Lists and ballots	163 50	
	Total, $1,161.80		
	SOUTH VANCOUVER ELECTORAL DISTRICT.		
Edmonds, W F	Returning Officer	200 00	
Brown, P B	Election Clerk	150 00	
Pay-list	Deputy Returning Officers, 24 @ $10	240 00	
do	Poll Clerks, 26 @ $5	130 00	
do	Police, 12 @ $5	60 00	
Sundry persons	Erecting booths, rents, meals, livery-hire, stationery, etc	918 70	
Carswells, Ltd	Printing Voters' Lists, ballots, etc	491 50	
	Total, $2,190.20		
	Carried forward	.....	85,234 86

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	85,234 86
	IV.—LEGISLATION.—*Continued.*		
	Vote No. 22.—Expenses of Elections.—Continued.		
	TRAIL ELECTORAL DISTRICT.		
Perdue, R M	Returning Officer	250 00	
Pay-list	Election Clerk	100 00	
do	Deputy Returning Officers, 28 @ $10	280 00	
do	Poll Clerks, 28 @ $5	140 00	
do	Police, 21 @ $3	63 00	
Sundry persons	Rents, posting proclamations, delivering and collecting boxes, stationery, meals, etc.	809 18	
Trail News	Printing Voters' Lists, ballots, etc	224 00	
	Total, $1,866.18		
	VANCOUVER ELECTORAL DISTRICT.		
Black, A P	Returning Officer	800 00	
White, C J	Legal Adviser	300 00	
Pay-list	Presiding Officers, 8 @ $25	200 00	
do	Deputy Returning Officers, 93 @ $10	930 00	
do	Poll Clerks, 101 @ $5	505 00	
do	Police, 32 @ $5	160 00	
Sundry persons	Rents, erecting booths, preparing ballot-boxes, meals, stationery, etc	2,687 99	
News-Advertiser	Printing Voters' Lists, ballots, etc	2,276 40	
Stables, J	Returning Officer (by-election)	400 00	
Reid, C	Election Clerk (by-election)	150 00	
Pay-list	Presiding Officers (by-election) 8 @ $25	200 00	
do	Deputy Returning Officers (by-election) 93 @ $10	930 00	
do	Poll Clerks (by-election) 93 @ $5	465 00	
Sundry persons	Erecting booths, rents, stationery, printing, auto-hire, police, meals, etc. (by-election)	1,244 70	
Sun Job Presses	1,000 copies Voters' Lists (by-election)	1,822 50	
	Total, $13,071.59		
	VICTORIA CITY ELECTORAL DISTRICT.		
Child, S	Returning Officer	500 00	
Pay-list	Election Clerk	100 00	
do	Deputy Returning Officers, 58 @ $10	580 00	
do	Poll Clerks, 48 @ $5	240 00	
do	Police, 11 @ $5	55 00	
do	Presiding Officers, 5 @ $25	125 00	
Sundry persons	Erecting booths, electric wiring, rents of polling-stations, furniture, etc., meals, etc.	1,525 62	
Colonist Ptg & Pub Co, Ltd	Printing Voters' Lists and ballots	1,019 50	
Bawden, E J	Returning Officer (by-election) $75; auto-hire, $8	83 00	
Beard, R	Election Clerk (by-election)	25 00	
	Total, $4,253.12		
	YALE ELECTORAL DISTRICT.		
McRae, J	Returning Officer	250 00	
Pay-list	Election Clerk	100 00	
do	Deputy Returning Officers, 37 @ $10	370 00	
do	Poll Clerks, 37 @ $5	185 00	
Sundry persons	Rents, delivering and collecting boxes, printing, stationery, etc	786 25	
Nicola Valley Pub Co	Printing Voters' Lists	165 50	
	Total, $1,856.75		
	Military Forces Voting Act.		
	IN CANADA.		
Banwell, S	Special services $100; (Paid) clerical assist., postage, seals, canvas bags, etc. $627.12	727 12	
Berry, J W	Presiding Officer, Vernon Camp, Vernon and Mara Detention Camps	400 00	
Thrift, H T	Returning Officer, " " " 29 days @ $10	290 00	
Pay-list	Deputy Returning Officers, " " 22 men 75 d. 10	750 00	
Sundry persons	Clerical work, meals, printing, stationery, rents, etc., Vernon Camp, Vernon and Mara Detention Camps	636 20	
Blackwood, C D	Presiding Officer, Bonnington Falls and Trail $60; expenses, $34.50	94 50	
McFarland, D A	Deputy Presiding Officer, " "	40 00	
Booth, G	Presiding Officer, Various camps, Vancouver Island	195 00	
Sundry persons	Deputies, rents, meals, extra labour at polls, etc., "	330 00	
Carty, W N	Presiding Officer, bridge and tunnel guard between Vancouver and Laggan	400 00	
Ellett, S J	Poll Clerks, 15 @ $5, " " "	75 00	
Sundry persons	Meals, rooms, clerical assistance, fares, stationery, etc., bridge and tunnel guard between Vancouver and Laggan	241 45	
Cox, Capt W J	Presiding Officer, in Canada, outside Province of B.C. $500; transportation, $409.25	909 25	
	Carried forward	.....	85,234 86

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	85,234 86
	IV.—LEGISLATION.—*Continued.*		
	Vote No. 22.—Expenses of Elections.—Continued.		
	Military Forces Voting Act.—Continued.		
	IN CANADA.—*Concluded.*		
Pay-lists	Deputy Presiding Officers, in Canada, outside of Province of B.C.	590 00	
do	Clerks, " "	40 00	
Sundry persons	Auto-hire, hotel and board, printing, telegrams, etc., in Canada, outside of Province of B.C.	723 18	
Jowett, W A	Presiding Officer, Edgewood ..... $30; telegram, $1.15	31 15	
Jowett, W D	Deputy Presiding Officer, "	10 00	
Kearns, J D	Presiding Officer, Vancouver and North Vancouver	400 00	
Boultbee, W W	Deputy Presiding Officer, " " ..... 16 days @ $10	160 00	
Ruggles, H D	do " " ..... 2½ " 10	25 00	
Pay-lists	Poll Clerks, deputies, " "	290 00	
Sundry persons	Auto-hire, rent, stationery, fares, etc., Vancouver and North Vancouver	216 25	
Lamb, T	Presiding Officer, Morrissey Internment Camp... $20; travelling expenses, $10	30 00	
Pay-list	Deputy, Assistant, and clerk, Morrissey Internment Camp	15 00	
Peebles, P	Presiding Officer, New Westminster	20 00	
Wade, S	Deputy Presiding Officer, "	10 00	
Brown, W E	Poll Clerk, "	10 00	
Sundry persons	Meals, fares, stationery, postage, etc., "	10 50	
Pirie, G	Presiding Officer, Sidney	225 00	
Pay-list	Deputy Presiding Officers, Sidney ..... $280; expenses, $76	356 00	
Sundry persons	Rent of chairs, etc., auto-hire, meals, rent of Y.M.C.A. tent., etc., Sidney	115 45	
Saunders, J R	Presiding Officer, H.M.C.S. "Rainbow," Esquimalt, B.C.	60 00	
Cave, W J	Deputy Presiding Officer, " "	40 00	
Billinghurst, E E	Poll Clerk, " "	10 00	
Sundry persons	Launch-hire, meals, auto-hire, stationery, etc., " "	42 25	
King, E	Deputy Presiding Officer, Otter Camp and Golden	20 00	
Smith, J M	Presiding Officer, various camps, Vancouver Island ..... $250; expenses, $74.50	324 50	
Coy, F E	do Otter Camp ..... 30; " 21.55	51 55	
Crews, H O	do Prince Rupert ..... 20; " 36.20	56 20	
Jeune Bros, Ltd, F	50 receptacles for taking votes	193 50	
Sweeney-McConnell, Ltd	Seal-press, seals, for ballot-bags	12 50	
Royal Print & Litho, Ltd, Halifax	Ballot-papers, etc	4 50	
	Total, $9,181.05		
	OVERSEAS.		
Atkinson, J H	Services and expenses *re* taking of votes in Shorncliffe area	873 02	
Berry, G A	do	320 38	
Cherer & Co	Services as stenographers, transcripts, carbons, etc	511 06	
Commercial Cable Co	Cables	747 14	
Daunt, R	Clerk, 1 week	7 28	
Davidson Co	4 ballot-boxes	36 56	
Dick, T	Services and expenses	24 25	
Dominion Express Co	Express charges and insurance	373 04	
Douglas, H A	Services and expenses in England and France	1,094 38	
Edmond, C H	Expenses *re* vote on H.M.T. "Scandanavian"	50 00	
Gintzburger, M	Services and expenses	459 58	
Harris, J	Motor-hire, $19.40; stencils, banners, etc., $32.25	51 65	
Helmore & Helmore	Assisting and checking votes, preparing final figures and forwarding separate report, preparing forms for signature by Agent-General, Scrutineers, and Auditor	469 97	
Junior Army & Navy Stores	Canvas bags	45 35	
Lonergan, S M	Services as Presiding Officer at Epsom ..... 25 days @ 10s.	69 31	
Mackarness, A C	do at Bramshott and expenses	782 92	
Martin, J	Legal advice	48 50	
McBride, Sir R	Sundry disbursements	48 50	
Neilson, A	Counsel fees	91 42	
Peacock & Co, Ltd, C	47 ballot boxes	122 52	
Petty Cash Accounts	Clerical assistance, telegrams, auto-hire, rail fares, meals, etc	984 76	
Pyle, F A	Services and expenses in England and France	381 20	
Rutherford, J	Services and expenses as Presiding Officer for Midland and Northern Counties and whole of Scotland	861 70	
Simon, Sir John	Counsel fees	128 28	
Smith Bros	Clerical assistance	188 95	
Steele, J W	Services and expenses	138 14	
Straker Bros	Stationery and printing	1,123 63	
Stuart, R	Services and expenses	338 61	
Trim, H C	do in Sussex	159 52	
Steadman, Van Praagh & Gaylor	do in France	1,018 50	
	Carried forward	.....	85,234 86

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	85,234 86
	IV.—LEGISLATION.—*Continued.*		
	Vote No. 22.—Expenses of Elections.—Concluded.		
	Military Forces Voting Act.—Concluded.		
	OVERSEAS.—*Concluded.*		
Walker, C J	Advertising	116 16	
Wellband, T A	Services and expenses	52 54	
Welsh, F W	Fee as Presiding Officer, $1,000; expenses, $1,569.55	2,569 55	
Western Union Cable Co.	Cables	194 19	
Whitehouse, R	Auto-hire	26 67	
	Total, $14,509.23		
Child, S	Returning Officer's fee, $250; legal advice, $58; expenses, $514.65	822 65	
			101,081 67
	Vote No. 23.—Fees and Expenses of Witnesses attending and giving Evidence before Select Standing Committees.		
Grain, C W	Travelling expenses, board and room, *re* "Bullion" property, Cariboo District	246 40	
Langley H	Transcripts of evidence, " "	113 40	
Speer, J	Travelling expenses, *re* Canadian Western Lumber Investigation	15 00	
McDonald, H	Witness fees and expenses, *re* Parliament Building Extension Investigation	336 00	
Alexander, H O	Expenses, *re* Kitsilano Reserve Investigation	19 50	
Boyd, B	Witness fees and expenses, *re* Kitsilano Reserve Investigation	19 00	
Calkins, C A	do " "	13 00	
Cole, J	do " "	28 95	
Ferris, W J	do " "	13 00	
Lennie, Clark & Hooper	do *re* Andrew Laidlaw Inquiry	10 00	
Tiffin, F W	do "	10 00	
Chase, Mrs A	do *re* Vancouver Election Inquiry	12 30	
Gosden, R	do "	29 85	
Grey, D	do "	17 10	
Huggins, E	do "	12 30	
Lawrence, H G	do "	17 00	
Moore, Mrs B	do "	11 05	
Moore, F	do "	11 05	
Morrison, R	do "	17 05	
MacLennan, M B	do "	11 05	
Robertson, P	do "	24 60	
Smith, R	do "	15 05	
Wallace, M	do "	9 80	
			1,012 45
	Vote No. 23A.—Expenses incurred in connection with Inquiries by Select Standing Committees.		
Blygh, Mrs E	Services as Stenographer, transcripts of evidence, *re* Pacific Great Eastern Railway	1,450 40	
Bullock, F	Extra services as Clerk to the Committee and Custodian of all documents, etc., *re* Pacific Great Eastern Railway	100 00	
Cox, D G	Expenses *re* summons to D. McLeod, *re* Pacific Great Eastern Railway	8 85	
Farrabee, S	Services as Assistant Clerk and Messenger, "	65 00	
Taylor, Harvey, Stockton & Smith	Counsel fees and expenses, "	3,632 50	
Unwin, M	Services as Stenographer, transcripts of evidence, "	7 50	
Langley, H	do " *re* Ward-Hopp "Bullion" Mining Inquiry	529 50	
do	Services as Stenographer, transcript of evidence, *re* M. B. Cotsworth and Laidlaw Inquiries	175 30	
			5,969 05
	Vote No. 24.—Contingent Fund.		
Allbutt, F	Services as Stenographer, transcripts, *re* Public Accounts Committee	129 60	
Seymour, L J	do " *re* Kitsilano Reserve Inquiry	251 41	
Allan, K	Witness fees and expenses, *re* Vancouver Election Inquiry	13 05	
Allbutt, F	Services as Stenographer, transcripts, "	1,977 90	
Angus, J A	Services examining ballots, analysing reports, etc., "	35 00	
Annance, Mrs P	Witness fees and expenses, "	11 50	
Anderson, A	do "	71 00	
Barrow, A E	do "	12 30	
Bird, A H	do "	4 00	
Butcher, G	do "	13 85	
Clark, W A	do "	11 55	
Clements, H N	do "	16 55	
Eldridge, W P	do "	10 55	
Farrell, J	Services examining ballots, analysing reports, etc., "	35 00	
	Carried forward	.....	193,298 03

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		193,298 03
	IV.—LEGISLATION.—*Continued.*		
	***Voth No. 24.—Contingent Fund.*—Continued.**		
Fraser, M	Witness fees and expenses, *re* Vancouver Election Inquiry	48 55	
Hoskin, J	do "	11 55	
Jones, H S	do "	14 55	
Moore, Mrs B	do "	11 55	
McRae, W M	do "	11 55	
North, S	Expenses escorting Peter Annance from Vancouver, "	8 00	
Pearce, H H	Witness fees and expenses, "	21 30	
Perry, R A	do "	10 55	
Planta, A E	do "	30 00	
Pound, A M	do "	9 55	
Redington, C	do "	15 05	
Reid, J	do "	15 00	
Reid, S N	do "	10 00	
Scruton, R H	do "	10 05	
Smith, T	Fares for P. Annance and Constable North, "	7 00	
do	do and state-room for Mrs. P. Annance, "	6 05	
Welsh, F M	Witness fees and expenses, "	10 55	
Wilkes, H L	do "	21 60	
Wismer, G S	do "	18 05	
Woods, M	do "	2 00	
Howarth, F W B	Delivering summonses, *re* Victoria by-election Inquiry	50	
Seymour, L J	Services as Stenographer, transcripts, "	92 49	
Brown & Co, E A	Water-pails, mops, wringers, crockery, etc	48 20	
Cameron & Calwell	Auto-hire	4 00	
C P R Telegraph Co	Telegrams	10 21	
Copas & Young	Matches, polish, washing-powder	9 75	
Dominion Express Co	Expressage	46 44	
Gordon Drysdale, Ltd,	Towels, cheese-cloth, brush, soap	49 85	
Empress Hotel	Meals for Sergeant-at-Arms and D. R. Thomas	27 80	
Fox, H A	Pocket-knives	34 75	
G N W Telegraph Co	Telegram	31	
Harcourt & Son	Speaker's silk gown	100 00	
Hickman-Tye H'ware Co	Brass card-holders for Legislative Hall desks	2 00	
Ivel's Pharmacy	Mirrors, combs, hairbrushes, soap, etc	53 14	
Macey Office Equipment	Letter size oak filing-cabinet for Speaker's Office	26 60	
Mansell, Mrs E	Laundry	89 23	
Masters, M	Meals to members of sessional staff, etc., ; $769.23 ; 2 brass show-cases for dining-room, $70	839 23	
MacDonald, N	Meals to members of sessional staff, etc	548 95	
O'Connells, Ltd	Suit for Sergeant-at-Arms, gloves	59 00	
Pandora Sail and Tent Factory	Brown bag	2 50	
Price, A E	Lock and keys	6 10	
Robinson, J W	Meals supplied to sessional staff and clergy, Session, 1916	2,082 80	
Smith, J	Scavenging	18 50	
Smith & Champion	Rent of furniture, sheets, pillow-cases, quilt	47 55	
Standard Steam Laundry	Laundry	139 84	
Sweeney-McConnell, Ltd	Rubber stamps	22 35	
Times Printing & Pub Co, Ltd	Copies of Victoria "Daily Times"	85 50	
Victoria Gas Co	Gas and meter rent	25 23	
Victoria Hardware Co	Mops, screw-driver, hammer, chisel	6 85	
Victoria Steam Laundry	Laundry	91 59	
Weiler Bros, Ltd	Duster, screw-hooks, etc	7 25	
Wilson Co, Ltd, B	Ice	30 05	
Wilson, W & J	Gloves, boy's suit, shirt, etc	31 90	
Windsor Grocery Co	Dustbane, stove-polish, brushes	8 25	
Wolfenden, V A	Auto-hire	15 00	
Cullin, C L	Sergeant-at-Arms, extra allowance, Session, 1916	200 00	
Popham, F J	Assistant Sergeant-at-Arms, " "	200 00	
Angus, J K	Door-keeper, " "	50 00	
Carne, F	do " "	50 00	
Gowen, C N	do " "	50 00	
Lockley, A	do " "	50 00	
McInnes, T A	do " "	50 00	
Redfern, C E	do " "	50 00	
Hood, A S	Mail Clerk, balance of sessional allowance and extra allowance, Session, 1916	125 00	
Hopkins, F J	do " "	50 00	
Ahern, W	Messenger, " "	50 00	
Richardson, P	do " "	50 00	
McCabe, M	do " "	50 00	
Webb, F	do " "	50 00	
Fulton, J G	do " "	50 00	
Ryan, R	Special services during Session, 1916	50 00	
Maynard, F G	do "	50 00	
Starr, A E	do "	50 00	
Bawden, E J	Sergeant-at-Arms, Session, 1917	200 00	
Cronk, J	Deputy Sergeant-at-Arms and Door-keeper, Session, 1917	274 00	
	Carried forward		193,298 03

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		193,298 03
	IV.—LEGISLATION.—*Concluded.*		
	Vote No. 24.—Contingent Fund.—Concluded.		
McKay, D G	Secretary, Session, 1917	340 00	
Mabon, L.	Mail Clerk, "	274 00	
Moore, W W	do "	250 00	
Jones, J McN	do "	24 00	
Agnew, F M D	Stenographer, "	69 25	
Berry, M	do "	12 00	
Chalmers, F	do "	18 00	
Hearnes, J	do "	179 91	
Hill, A	do "	73 77	
McAlister, J	do "	160 65	
Sutherland, J	do "	175 43	
Wood, M A	do "	166 86	
Wright, F	do "	160 65	
Anderson, D L	Door-keeper, "	21 00	
Brewster, J A	do "	50 00	
Carey, J	do "	21 00	
Collinge, E	do "	250 00	
Gibson, J	do "	10 00	
Handley, W H	do "	250 00	
Hildreth, C E	do "	250 00	
Jones, V	do "	35 00	
Mabon, R	do "	21 00	
Malin, K	do "	75 00	
McVie, S	do "	21 00	
Norrell, E	do "	21 00	
Reynolds, J	do "	21 00	
Robley, E	do "	250 00	
Teague, A	do "	25 00	
Tilley, T H	do "	215 00	
Young, J F	do "	21 00	
Berry, T R	Messenger, "	50 00	
Zala, A	do "	21 00	
Brandon, G	Page, "	17 00	
Brown, R	do "	17 00	
Davis, C	do "	17 00	
Kay, T	do "	17 00	
MacPherson, A	do "	10 00	
McDonald, R	do "	7 00	
McNaughton, C	do "	17 00	
MacDonald, N	Services in dining-room, Session 1917	50 00	
			12,982 99
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).		206,281 02
	Vote No. 25.—Bureau of Mines (Maintenance).		
	PLANT, MATERIAL, AND INCIDENTAL EXPENSES.		
Adams, J B	Services as Assayer, assisting in Assay Office 7 weeks @ $25	175 00	
American Express Co	Expressage on reports and pamphlets to Canadian Exhibition Commissioners, San Diego, Cal	13 54	
American Inst of Mining Engineers	Binding Volumes, 52, 53, and 54	3 00	
Billings & Sons, Ltd	Decennial Index (1906-15) of "Analyst"	5 14	
B C Assay & Chemical Supply Co	100 lb. Litharge C.P.	16 00	
B C Electric Ry Co, Ltd	Electric power	13 88	
Calwell, H	Cartage and prepaid freight	19 18	
Canadian Express Co	Expressage	6 54	
Cochrane, J	Crucibles. acids, etc	90 15	
Colonist Ptg & Pb Co, Ltd	Zinc line cuts, copper half-tones, 9,000 tables showing mineral production, etc	472 70	
Consolidated Mining & Smelting Co	Expressage on samples for Board of Examiners	1 70	
Dominion Express Co	Expressage	8 56	
Eng and Mining Journal	Subscription, 2 years to May, 1918, $13; 12 binders @ 50c	19 00	
Evans, Coleman & Evans	50 lb. fireclay	75	
Fleming, H	Photographic supplies, prints, etc	85 69	
Fraser & Co, G A	Chemicals, etc	102 60	
Fraser, W S	Emery-cloth, file, etc	1 07	
Hafer Machine Co	Cutting out spring steel friction disks	1 00	
Ivel's Pharmacy	Chemicals, crucibles, etc	135 58	
Jeune & Bro, Ltd, F	Sheets and bags	26 63	
Maynard, A H	Films, repairs to camera, etc	12 70	
Mining & Scientific Press	Subscription to January 31st, 1918	5 00	
McGraw-Hill Book Co	Books	44 00	
Nolte & Co, F W	Aneroid barometer, thermometer, and repairs to instruments	30 50	
	Carried forward		

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	.....
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	***Vote No. 25.—Bureau of Mines (Maintenance).*—Concluded.**		
	PLANT, MATERIAL, AND INCIDENTAL EXPENSES.—*Concluded.*		
Peacock Bros	2 sets barometer charts, 28/31, and postage	5 16	
Powell & Sons, G	Auger-bits, carborundum wheel, etc	10 45	
Ross & Co, Dixi H	Matches	1 00	
Simpkin, Marshall, Hamilton, Kent & Co, Ltd	Subscription to "Analyst," 1917	5 14	
Smith & Champion	1 yard leatherette	85	
Soc'y of Chem Industry	Subscription to journal	6 12	
Times Ptg & Pub Co, Ld	Copper half-tones, zinc etching	100 25	
Vic Book & Stat Co, Ltd	Books	11 75	
Victoria Gas Co, Ltd	Gas and meter rent	221 04	
	Total, $1,651.67		
	TEMPORARY PARTIES IN FIELD (INCLUDING SALARIES AND TRAVELLING EXPENSES).		
Brewer, W M	Services as Mining Engineer.....10 months 13 days @ $200; expenses, $1,027.80	3,106 83	
Galloway, J D	Travelling expenses	2,834 63	
Musgrave, R	Services as Mining Engineer..... 3 months 27 days @ $300; expenses, $442.40	1,612 40	
Turnbull, J M	do ..... 2 months 400; " 155.15	955 15	
	Total, $8,509.01		10,160 68
	Vote No. 26.—Mine-rescue Stations.		
	SUPPLIES, APPARATUS, REPAIRS, AND INCIDENTAL EXPENSES.		
A & B Livery	Removing rubbish, $2; 8 tons coal @ $5.25; wood, $2; manure, $1.50	47 50	
Brackman-Ker M Co, Ltd	Bird-seed	1 00	
B C Telephone Co, Ltd	Exchange service, $66; long-distance calls, $2.75	68 75	
Bryant, C F	2 rugs for cars	15 00	
Burns, W	30 bandages	3 75	
Can Fairbanks-Morse Co	Edison electric cap-lamps, lamp-bulbs, electrolite solution, antomatic fillers, expressage, etc	189 33	
Can Pacific Railway Co	Freight, $44.44; prepaid freight on 7,640 lb. of coal to Brucetown, Penn., for scientific purposes, $185.32	229 76	
City of Fernie	Water, $27; electric light, $11; meter-rent, $3; sewer-rental, $5	46 00	
City of Nanaimo	Water	15 00	
Compressed Gas Co	Oxygen, repairing valves, etc	254 35	
Crow's Nest Pass Coal Co	Coal, $73; glass jars, $1.35; cement, 90c.; prepaid freight on 7,500 lb. of coal to Brucetown for scientific purposes, $142.37	217 62	
Dominion Express Co	Expressage	6 81	
Draeger Oxygen Apparatus Co	Pulmotors, reducing-valves, safety-guards, measuring-bags, etc	794 29	
Duthie Co	Seed-cups for canaries	60	
Falvo, G	Waist-belts and leather straps	7 75	
Ferguson, A E	Installation of furnace, spare firebricks, water-coil, etc	130 50	
Fernie Co-operative Soc'y	Bird-seed and gravel	2 45	
Fernie Livery Co	Haulage	7 75	
Fleming, H	Negatives and prints	20 00	
Hamilton, A T	Repairs to furnace, Fernie	4 25	
Hodgins, Ltd, J B	Candles, sulphuric acid, and distilled water	13 25	
Imperial Oil Co, Ltd	Gasolene	124 70	
Kootenay Tel Lines Ltd	Telephone service	19 40	
Martell, R	Repairs to autos, oxygen-pumps, etc	57 60	
Michell D	(Paid) Expressage on coal samples to Pittsburgh, sealers, etc	14 91	
Middlesboro Collieries	Care of 4 complete sets of Government mine-rescue apparatus from 1st April, 1916, to 31st March, 1917	300 00	
Morrisey, Fernie & Michel Ry	Making extra lever for high-pressure refilling-pump, etc	9 45	
McDougall, D	Cage for canary, ink, mucilage and toilet-soap	3 25	
Nanaimo Elec Light & Power Co	Electric light, $6.20; lamps, $1.90	8 10	
Nanaimo City Gas Co	Meter-rent	3 00	
Nanaimo Foundry	Castings, bolts, etc	4 23	
O'Brien, G	(Paid) Expressage, Customs duty, postage-stamps	4 95	
Peacock Bros	Anemometers, hydrometers, electrodes, accumulators, etc	348 85	
Postmaster, Fernie	Postage-stamps	1 50	
Quail, J D	Gasolene, sand-screen, hose, paint, etc	6 10	
Sampson Motor Co	Ford runabout and licence, $571; accessories and repairs, etc, $157.85	728 85	
Stearman, F C	Sulphur torches	2 15	
Stewart, J D	(Paid) Licences, repairs, cartage, expressage, etc	125 05	
Strachan, R	(Paid) Ford runabout, $550; casings, inner tubes, etc	608 30	
Suddaby, N E	Toilet-soap, thermometers, glycerine, etc	5 75	
Supt of Documents, Washington, D C	Copies of bulletins	35 00	
Sweeney Cooperage Co	Oil-barrels, cartage, and prepaid freight	105 35	
	Carried forward	.....	10,160 68

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		10,160 68
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	Vote No. 26.—Mine Rescue-stations.—Concluded.		
	SUPPLIES, APPARATUS, REPAIRS, AND INCIDENTAL EXPENSES.—*Concluded.*		
Tolmie, Miss J C	6 Canaries @ $2; cage, $1.50	13 50	
Trites-Wood Co, Ltd	Towels, glass jars, leather cloth, etc	9 15	
Western Fuel Co	Nails, lumber, electrolyte, dry cells, etc	24 97	
Whitney Co, J M	Four cups for competition in first-aid work and engraving	255 00	
Wilkinson, A	Painting car, $40; leaf in spring, $1.50	41 50	
			4,936 32
	Vote No. 27.—Fisheries.		
	ADMINISTRATION, INVESTIGATION, AND MAINTENANCE OF FISHERIES AND HATCHERY (INCLUDING SALARIES, WORKMEN'S WAGES, AND TRAVELLING EXPENSES).		
Arthur, J B	Foreman ... expenses, $140.60; 12 months @ $100	1,340 60	
Arthur, J F	Workman ... 164 days 3	492 00	
Babcock, J P	Travelling expenses	234 55	
Birchall, K F	do	30 75	
Bones, S	Workman and team ... 1 day @ $ 4	4 00	
Brown, G	Workman ... 3 days 3	9 00	
Buckell, R	Stenographer ... 1 month 45	45 00	
Burke, W M	Workman ... 81 days 3	243 00	
Collison, J M	Travelling expenses *re* inspection of spawning-beds, Nass	13 00	
Craddock, T	Workman ... 18½ days @ $3	54 75	
Edwards, H M	Mounting salmon-scales, etc ... 122 hours .35	42 70	
Gammon, E	Travelling expenses, *re* prosecution of fishery cases	19 00	
Gilbert, Dr C H	Salmon Expert ... expenses, $393.05; 13 months @ $125	1,893 05	
Groves, F	Workman ... 62 days 3	186 00	
Harris, W	do ... 1 day 3	3 00	
Hickman, C P	Travelling expenses	993 10	
Indian Johnny	Workman ... 11 days @ $ 3	33 00	
Indian Tommy	do and hire of canoe ... 11 " 4	44 00	
Jellett, J F	do ... 146 " 3	438 00	
Johnson, J E	do ... 165½ " 3	495 75	
Keary, H	do ... 9 " 3	27 00	
Link, J	do ... 2 " 2.50	5 00	
Louie, J	do ... 2 " 3	6 00	
Lowell, M	Mounting salmon-scales ... 67 hours .35	23 45	
Marshall, S J	Workman ... 4 days 3	12 00	
McDonnel, D A	do ... 64½ " 3	193 50	
McIntyre, D N	Travelling expenses	45 00	
Newcombe, W A	Overseer ... expenses, $322.90; 8 months @ $75	922 90	
Parsons, F	Workman ... 30½ days 3	91 50	
Paterson, A N	Taking measurements and scales of salmon ... 50 hours .50	25 00	
Polly, R	Overseer ... 3 months 75	225 00	
Ritchie, W	Workman ... 12½ days 3	36 75	
Shields, J	do ... ½ " 2.50	1 25	
Smith, W C	Pay-list *re* log-jam at Quesnel Lake Dam	58 00	
Snell, R	Workman ... 8¾ days @ $3	26 25	
Stacks, G	Transferring 2,000,000 sockeye from Pemberton Hatchery to Seton Lake Hatchery	7 40	
Stafford, Dr J	Oyster Expert ... expenses, $461.87; 6 months @ $200	1,661 87	
Stone, A W	Overseer ... expenses, $292; 7 months @ $80; ½ " 75	889 50	
Thompson, W F	Halibut Expert ... expenses, $548.83; 12 " 100	1,748 83	
Tinker, G	Workman ... 1 day 3	3 00	
Walker, W	Overseer ... 1 month 24 d. 75	135 00	
Weymouth, F W	Crab Expert ... expenses, $73.01; 1 " 11 d. 200	343 98	
Willie, S	Workman ... 3¾ days 3	11 25	
Alandale Cannery	30 yards cheese-cloth	3 00	
Albion Stove Works, Ltd	Albion range	28 00	
Anderson Lake Bob	Packing freight and moving camp	50 50	
B C Canners' Assoc'n	Provisions and camping materials	55 75	
B C Canning Co	Provisions, launch and boat hire, cash advances for wages to A. W. Stone, Overseer	874 40	
Brown, Jas	Boat-hire, labour, herring, etc	22 50	
Brynildsen Co, B	Provisions per A. W. Stone	32 05	
Burns & Co, Ltd, P	Hog-liver	7 26	
Calwell, H	Cartage and prepaid freight	12 47	
Campbell, D E	Corks	2 65	
Canadian Express Co	Expressage	90	
Canadian Fishing Co	Fish for scientific specimens	3 20	
C P R Telegraph Co	Telegrams	22 40	
Christensen, A C	Provisions, etc	35 05	
Clayton, D	Launch-hire ... 34½ days @ $12	414 00	
Collison, J M	do ... 4 " 15	60 00	
Colonist Ptg & P Co, Ltd	Zinc line cuts, copper half-tones, making drawings of 5 cuts of halibut-banks	225 47	
Craig, D	Auto-hire	182 50	
Dominion Express Co	Expressage	9 05	
Dom Govt Telegraphs	Telegrams and rent of telephone	27 17	
G N W Telegraph Co	Telegrams	4 70	
Hayward & Dodds	Bath-cock	3 25	
	Carried forward		15,097 00

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		15,097 00
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	***Vote No. 27.—Fisheries.*—Concluded.**		
	ADMINISTRATION, INVESTIGATION, AND MAINTENANCE OF FISHERIES AND HATCHERY (INCLUDING SALARIES, WORKMEN'S WAGES, AND TRAVELLING EXPENSES).—*Concluded.*		
Hickman-Tye Hdw Co, Ld	Wire screen and plumbing material	6 92	
Hohwiesner & Co	(Paid) Freight and Customs duty	6 27	
Industl & Educl Press, Ld	Subscription to "Canadian Fisherman"	2 00	
Jaynes, W R	Boat-hire, 9½ days @ $15	142 50	
Jeune & Bro, Ltd	Tents, rubber boots, and water-proof dunnage-bag	30 45	
Johnston, R G	Hire of gasolene-boat "Reta L" for patrol work, 115 days @ $12	1,380 00	
Kaltyes & Co, W A	Hay	37 40	
Keary, P	Launch-hire, 1 day	15 00	
Lillooet Feed & Sale Stble	Hay	78 06	
Lipsett, E	12 pairs rubber boots @ $7; 1 90-foot herring-seine 10 feet deep at bag, $70; freight, $1	155 00	
Marvin & Co, E B	Cotton rope, $1.40; postage, 22c	1 62	
Maynard, A H	Lantern-slides, developer, and prints	6 20	
Mearon, S	Blacksmithing	3 50	
Mech Shp, Stanford Univ	Fish-measuring apparatus	6 60	
Morris, C S	B.C. Commercial Map	6 50	
McDonald, J A	Auto-hire	3 00	
Pacific Fisherman	Subscription	2 50	
Pacific G E Ry Co	Freight	1 60	
Phair, C A	Hardware, oil, gasolene, etc	337 55	
Postmaster, Lillooet	Rent of post-office box	3 00	
Prior & Co, Ltd, E G	Steel tapes and expressage	8 00	
Robinson & Crandall	Lantern-slides, films, plates, etc	7 81	
Shore Hdware Co, Ltd	Tapes	2 75	
Southern Pacific Co	Freight	25	
Stanford Bookstore	Slides, boxes, and folders, etc	15 27	
Todd & Sons, J H	10 cases salmon talls	20 00	
Trades & Labour Council	1-page advertisement to "Labour Day Souvenir"	15 00	
Wallace Fisheries	1 case chum salmon	3 00	
Weiler Bros, Ltd	2 dozen Mason pint jars	1 60	
Whitney, E E	Blacksmithing, etc	39 50	
			17,528 80
	Vote No. 28.—Mental Hospital, Essondale.		
	SALARIES OF EMPLOYEES.		
Killen, A A	Decorator, 12 months @ $100	1,200 00	
Mowbray, T	Electrician, 12 " 100	1,200 00	
Foster, J B	Cook, 12 " 100	1,200 00	
Graham, R	Engineer, 12 " 90	1,080 00	
Fitzgerald, E	Plasterer, 12 " 90	1,080 00	
Pumphery, J B	Steward, 12 " 80	960 00	
Parrott, A G	Plumber, 12 " 80	960 00	
Hargie, J	Laundryman, 12 " 80	960 00	
Hogg, A	Carpenter, 2 months 13 d. @ $75; 9 " 80	902 50	
Hambley, S F	Baker, 12 " 75	900 00	
Price, A H	Cook (Farm), 12 " 75	900 00	
Rosselli, E	Telephone Operator, 12 " 75	900 00	
Robinson, A	Barber, 12 " 75	900 00	
Kerswell, W L	Mechanic, 12 " 75	900 00	
Hollins, J	Poultryman, 12 " 75	900 00	
Rolston, R	Fireman, 2 " 14 d. 70	172 65	
Mars, J	do, 7 days 70	16 31	
Saunders, J	do, 10 months @ $60; 1 month 21 d. 55	693 43	
Hughes, D	do, 12 " 70, less military pay 365	475 00	
Mouldy, G W	do, 11 months 17 d. 70	809 65	
Warden, R	do, 1 month 13 days @ $50; 5 " 18 d. 45	322 07	
Rieves, W	do, 5 " 19 d. 60	337 73	
Skinner, W T	Truckman, 12 " 70	840 00	
Mathewson, G	Supervisor, 12 " 96	1,152 00	
Doyle, M	Deputy Supervisor, 12 " 75	900 00	
Woodburne, G	Charge Attendant, 12 " 60	720 00	
Smith, A	do, 12 " 61	732 00	
Lynch, T	do, 12 " 54	648 00	
Banton, J C	do, 12 " 54	648 00	
Whiteway, W H	do, 9 " 54	486 00	
Johnson, J	do, 12 " 53	636 00	
Cunningham, N W	do, 12 " 60	720 00	
Baker, J T	do, 12 " 64	768 00	
Gow, R	do, 12 " 51	612 00	
Quaite, W S	do, 5 " 3d. 53	270 28	
Armour, W G	Dining-room Orderly, 12 " 67.50	810 00	
Mackie, W	Night Attendant, 12 " 53	636 00	
Haddock, R	do, 4 " 2 d. 53	215 40	
Heiliger, J	do, 2½ months @ $52; 6½ " 60	520 00	
	Carried forward		32,625 80

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		32,625 80
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	Vote No. 28.—Mental Hospital, Essondale.—Continued.		
	SALARIES OF EMPLOYEES.—*Concluded.*		
Smith, E A	Night Attendant ... 1 mos. 17 d. @ $ 52	75 80	
Coutts, D	do ... 2 months @ $51; 10 months 46	562 00	
Banham, H	do ... 3 " 14 d. 51	176 00	
Sands, E	do ... 6 " 51	306 00	
Lyon, A	do ... 11 " 30 d. 51	610 16	
Theroux, F B	Chief Attendant ... 12 " 68	816 00	
Frankum, F E	Attendant ... 12 months @ $60, less military pay 365	355 00	
Woodburne, T	do ... 12 " 46, " 365	187 00	
McLean, J D	do ... 9 days 50	14 50	
Jackson, R R	Under Attendant ... 12 months 47	564 00	
Thompson, A	do ... 12 " 48	576 00	
Fleming, R H	do ... 11 days 47	17 16	
Doyle, J H	do ... 4 months 48	192 00	
McNaughton, G D	do ... 3 months @ $47; 2 " 7 d. 52	257 11	
Hall, W	do ... 9 months @ $48; 1 month 53; 2 " 60	605 00	
Pollard, J	do ... 12 months @ $48, less military pay 243	333 00	
Thornley, N	do ... 12 months 48	576 00	
Johnston, S	do ... 12 " 47	564 00	
McAllister, H	do ... 12 " 47	564 00	
Hughes, M J	do ... 8 " 26 d. 47	415 26	
Barnett, J R	do ... 12 " 46	552 00	
McGowan, A	do ... 11 " 9 d. 46	519 35	
Sherlock, W E	do ... 1 " 46	46 00	
Sutherland, A	do ... 8 months 7 d. @ $46; 3 " 24 d. 51	570 86	
Snell, E L	do ... 9 " 45; 3 " 46	543 00	
Barrett, E	do ... 1 " 45	45 00	
Elliot, E	do ... 1 month 7 d. @ $45; 5 months 6 d. @ $51; 2 " 25 d. 46	449 08	
Blackburn, J W	do ... 6 " 10 45; 5 " 20 d. 50	567 65	
McCormack, T H	do ... 2 " 45	90 00	
Greber, W	do ... 12 " 45	540 00	
Smith, C	do ... 2 " 45	90 00	
Colthurst, F C	do ... 1 month @ $45; 4 " 51	249 00	
White, W J	do ... 6 " 3 d. 45; 5 " 28 d. 50	569 46	
King, M N	do ... 11 " 11 d. 45	510 85	
Armstrong, F H	do ... 2 " 25 d. 45	127 50	
Fellows, T	do ... 11 " 6 d. 45	504 00	
McAllister, W	do ... 17 days 45	24 65	
Young, J A	do ... 10 mos. 27 d. 45	489 19	
Croft E	do ... 30 days 45	43 79	
Johnson, J	do ... 6 months @ $50; 3 months 17 d. 45	509 02	
Wilkinson, H G	do ... 3 " 26 d. 45	173 23	
Twalves, C	do ... 1 " 12 d. 45	62 40	
Robertson, D	do ... 1 " 40	40 00	
Hudson, H R	do ... 1 day 45	1 50	
Bush, W	do ... 10 days 45	15 00	
Carroll, J	do ... 26 " 45	38 80	
Flannagan, A	do ... 9 months 11 d. 45	421 50	
Johnson, T	do ... 9 " 11 d. 45	421 50	
Cowley, J E	do ... 7 months 10 days @ $50; 2 " 45	456 55	
Lutley, C H	do ... 3 " 45; 6 " 24 d. 50	474 85	
Etigue, E J	do ... 2 " 6 d. 45	99 15	
Norris, C	do ... 21 " 45	31 90	
Dahling, E	do ... 2 months 13 days @ $45; 5 " 18 d. 50	387 90	
Minns, J	do ... 2 " 5 " 45; 5 " 18 d. 50	376 25	
O'Hara, P	do ... 3 " 17 " 45; 3 " 24 d. 50	348 36	
Griffith, H	do ... 6 " 20 d. 45	300 00	
MacNerney, L	do ... 3 " 25 d. 45	172 20	
McKain, O	do ... 5 " 21 d. 45	255 45	
Reilly, P	do ... 5 " 21 d. 45	255 45	
James, E	do ... 24 days 45	36 90	
Robertson, R	do ... 5 months 7 d. 45	235 87	
Worrall, W	do ... 2 " 15 d. 45	111 75	
Walsh, C E	do ... 21 days 45	31 95	
Chaplain	Church of England ... 12 months 20.83	249 96	
Chaplain	Roman Catholic ... 12 " 20.83	249 96	
Leash, H N	Photographer ... 7 " 25	175 00	
Beggs, W. F	Tailor ... 12 " 20	240 00	
Wooson, J	Domestic ... 3 " 10 d. 20	66 45	
McTaggart, J	do ... 5 " 15 d. 25	137 10	
Kerr, J	Assistant Cook ... 2 months @ $50; 10 " 60	700 00	
Lonsdale, H	Carpenter ... 12 months @ $90, less military pay 365	715 00	
Roberts, G W	Assistant Doctor ... 6 months @ 125	750 00	
Smith, F P	Dentist ... 9 " 40	360 00	
Fournier, G	Teamster ... 2 " 40	80 00	
	Total, $52,361.34		
	Carried forward		32,625 80

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		32,625 80
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	Vote No. 28.—Mental Hospital, Essondale.—Continued.		
	MAINTENANCE.		
Alaska B C Bedd'g Co, Ld	16 Mattresses @ $8.40	134 40	
Albion Motor Express	Expressage	5 80	
American Hospital Ass'n	Dues	5 00	
American Medical Ass'n	Subscription to February, 1918	6 50	
Am Medico-Psycho Ass'n	Dues to May, 1917	2 00	
Anderson & Lusby	Hardware	393 03	
August, John	Cutting cordwood	27 53	
Baker, J T	Expenses *re* escaped patient, $1.60; music services, $4	5 60	
Ballard, T	Cutting cordwood	6 50	
Barclay & Adams	Rubber heels	40	
Barnett, J R	Music services	3 00	
Beaver Soap Co, Ltd	1 keg acetic acid and freight	17 88	
Beggs, W F	Expenses *re* measuring and trying on suits	6 80	
Begg & Co, Ltd, F R	Paint, varnish and dye	157 62	
Begg Motor Co, Ltd	Cadillac touring-car, $2,700; gasolene, accessories and repairs, $142.40	2,842 40	
Black Bros, Ltd	Repairing auto-truck curtains and door of car	12 20	
Blue Funnel Mtr Line, Ld	Expressage	2 00	
Boorman, G H	Gratuity on leaving institution	10 00	
Bowden, H	Cartage on electric motor	75	
Bowell Co, S	Burial of 6 persons @ $9	54 00	
Brackman-Ker M Co, Ltd	Bran, oats, shorts, fertilizer, etc	715 95	
B C Assay & Chem Sup Co	Brine hydrometer and battery	2 15	
B C Barbers' Supply Co	Shaving-soap, shears, razors, etc	61 26	
B C Brush Works	Hairbrushes, scrubbing-brushes, etc	36 47	
B C Distillery Co, Ltd	Alcohol	71 12	
B C Electric Co, Ltd	Light and power, $2,729.17; freight, $13.18	2,742 35	
B C Telephone Co, Ltd	Telephone rental, $711; long-distance calls, $206	917 00	
Brock, Ltd, S	1 barrel caustic soda, $38.50; freight, $10.94	49 44	
Brown, W L	Rent of pneumatic spring hammer-drill	3 00	
Brown & Co, J E	2 suits underwear	5 00	
Brunette Sawmills Co, Ld	Lumber	289 98	
Brunswick, Balke, Collender Co	Billiard accessories	44 59	
Bryson & Son	Hardware	26 70	
Burch & Co, F S	Red marking-ink	77	
Burr, W R	Rubber-stamp pad	65	
Burton, J J	Second-hand barber's chair	40 00	
Buscombe & Co, Ltd	Crockery, etc	810 39	
Can Cons Rubber Co, Ltd	Tire-casings, inner tubes, heavy white hospital sheeting, etc	145 08	
Canadian Fairbanks-Morse Co, Ltd	Tires, tubing, oil, etc	114 74	
Can Genl Electric Co, Ltd	Storage-battery, motor-fan, electric iron, etc	94 95	
Can Ice Machine Co, Ltd	Ammonia	41 31	
C P R Telegraph Co	Telegrams	44 81	
C P Railway Co	Transportation, $62.20; freight, 17.39	79 59	
Can Western Lbr Co, Ltd	Repairing electric motors, etc., $18; lumber, $105.78	123 78	
Chandler & Fisher, Ltd	Drugs, bandages, etc	266 30	
Chapman, L	Cutting cordwood	10 15	
Chapman Co	1 gross magic metal-polishing cloths	35 00	
Chicago Rawhide Mfg Co	2 rawhide pinions for use on extractor-fans	18 10	
City Market	40 sacks turnips	30 00	
City of New Westminster	Water, $3,285.74; rent of ambulance, $5	3,290 74	
City of Port Coquitlam	Wages of firemen and filling cylinders of chemical engine *re* garage fire	25 00	
Clapp, A L J	Expenses *re* patient	1 75	
Clark & Stuart Co, Ltd	Ledger sheets, binders, and index	43 25	
Cork, E J	Gratuities	5 00	
Crane Co, Ltd	Plumbing materials, etc	55 10	
Creber, W	Expenses *re* escaped patient	1 70	
Cunningham, A	Cutting cordwood	86 64	
Curtis & Co, D S	Drugs, brushes, etc	138 81	
De Laval Dairy Sup Co, Ld	Milk-bottles and freight	10 57	
Darling & Co	Siphon-traps, drives with pulleys for extractor-fans, packing	262 62	
David, W	Cutting cordwood	25 35	
Davison, S J	Repairing harness	16 00	
Derider, P	Gratuity	1 00	
Dominion Exclusives, Ld	Rent of films for picture-show	12 00	
Dominion Express Co	Expressage	20 54	
Dulton, A	Inspecting scales	9 00	
Eimer & Amend	Record syringe	5 80	
Falconer, A	Cutting cordwood	14 11	
Fales, W E	Burial of 2 patients @ $9	18 00	
Fargesburg, P H	Gratuity on leaving institution	3 00	
Fisher, C W	do	3 00	
Fitzgerald, E	Jitney fares	14 65	
Fleck Bros	Coolie packing	4 95	
Fletcher, C	Car fares	35	
Freeman, T	5 gallons rye whisky	21 25	
	Carried forward		32,625 80

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		32,625 80
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	Vote No. 28.—Mental Hospital, Essondale.—Continued.		
	MAINTENANCE.—*Continued.*		
Fyfe-Smith Co, Ltd	Lumber	30 82	
Galbraith & Sons	10 dining-tables, chair-legs, lumber, etc	151 27	
Galer, R C	Jitney fares, etc	50	
Gaskell Bk & Stat Co, Ld	Books, etc	9 14	
Gauthier, L	Cutting cordwood	206 88	
Gaw, R	Rail fares	1 60	
General Film Co	Rent of films and carbons	114 90	
Gifford, W	Alarm-clock, repairing patient's glasses	22 60	
Gilley Bros, Ltd	Coal, lime, plaster	11,772 60	
Goard, J	Lowering pitch of piano and 2 new strings	7 00	
Gooding, C H	Jitney and car fares	3 40	
Grant, T H	110 dozen hot cross buns	13 75	
Great Northern Exp Co	Expressage	18 65	
G N W Telegraph Co	Telegrams	17 60	
Greig, J	Gratuity on leaving institution	5 00	
Gurney Foundry Co, Ltd	50 gallon copper urn, Gurney boiler, heater, etc	305 28	
Gutta Percha Rubber, Ltd	Hard rubber pump-valves	4 69	
Hall, W	Expenses *re* escaped patients	19 90	
Hall & Wallace	Replacing broken leaf in motor-truck spring	4 75	
Hargreaves, J	2 gross Hutax tooth-brushes	53 60	
Haskins & Elliott	Speedometer gear	50	
Healey, G W	Auto-hire	3 00	
Heller & Co, B	10 lb. Zanzibar Blue, carbon ink	93 00	
Hess, J	Cleaning chimneys and flues	36 00	
Hewitt & Co, Ltd, G H	Rubber stamps and repairs	3 47	
H M Customs	Duty	61 14	
Hoffmeister, R	Rewinding 1 Westinghouse 3-phase 220-volt motor	21 90	
Holloway, H E	5 gallons gasolene	1 50	
Horseman & Son	Accessories for electric iron	7 12	
Hudson's Bay Co	60 Acorn blind-pulls	6 00	
Hume, L	Expenses *re* examination of patient Devine	1 40	
Hyslop Hardware Co	Floor-varnish, turps, Redoxide	76 00	
Imperial Oil Co, Ltd	Gasolene	176 65	
Isaacson, T H	Auto-hire	2 00	
J Brooks Woodwkg Co, Ld	2 sets chair parts in maple	4 05	
Jarvis Electric Co, Ltd	3 electric desk-lamps	7 35	
Jaynes, W R	Welding-lever with ball weight	1 00	
Jeavons, H J	Gasolene-hose with connections	6 10	
Johnston, J J	Premium on insurance policy for Cadillac car	50 00	
Johnston's Big Shoe House, Ltd	Boots, slippers, laces, shoe-polish, etc	1,200 25	
Kelly, R	Onions	12 30	
King, C D	Making dental plate	2 50	
Kirk, H T	Paint, hardware, rope, etc	100 03	
Kwong On Wo & Co	Charcoal	1 20	
Lea & Febiger	Subscription to "American Journal of the Medical Sciences," to Dec. 31st, 1916	5 00	
Lipsett, E	Duck, twine, etc	13 74	
Lonsdale, H	Blinds and window-rods	5 00	
Lynch, F J	Cigars for patients' Christmas dinner	35 50	
Macgowan, G S (Bursar)	Travelling expenses	79 35	
Mahony & Gifford	Plumbing material	293 38	
Mainland Navign Co, Ld	Freight	50	
Martin, S B	Car fares and meals	2 60	
Mason & Risch, Ltd	20 music rolls for piano-player	18 55	
Metal Products Co, Ltd	Plumbing material	51 40	
Modern Hospital	Subscription to December, 1918	5 00	
Monk & Co, M	Fish	1,218 00	
Murchie & Son, D	Burial of 3 patients @ $9	27 00	
MacLean & Burr, Ltd	Gasolene, spark-plugs, cross-chains, etc	8 47	
MacLennan's Drug Store	4 razors	8 00	
MacRae, A	Cutting cordwood	10 15	
McAllisters' Ltd	Brass tubing and fittings	3 60	
McColl Bros & Co	Oil and grease	116 00	
McKay, J G, M D (Supt)	Travelling expenses	182 05	
McKay, K	Hauling and piling cordwood	1,050 50	
McLennan, McFeely & Co, Ltd	Firebricks, oven-plates, repairs, etc	111 07	
McMurphy, J P	Bibbs	3 05	
McNeal, A D	Gratuity on leaving institution	5 50	
McTague, P	Expenses *re* escaped patients	3 00	
New Home Sewing Machine Exchange	Sewing-machine for repair-work	24 00	
Northern Electric Co, Ld	Electrical fittings	253 06	
O'Brien, J	Painting boiler-room smoke-stack	7 00	
Parrott, A G	Window-shades, curtain-rods and laundry-tray	9 00	
Phillips, M J	21 suits of clothes for patients—14 @ $15; 7 @ $16	322 00	
Popular Boot Store	Rubber heels	25	
	Carried forward		32,625 80

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	32,625 80
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	***Vote No. 28.—Mental Hospital, Essondale.*—Concluded.**		
	MAINTENANCE.—*Concluded.*		
Postmaster, Essondale...	Postage-stamps	149 00	
Provincial Police	Motor licences	48 00	
Pumphery, J B (Steward)	Travelling expenses	137 10	
Ramsay & Son Co, Ltd..	Paints, oils, brushes, etc	152 89	
Reid & McDonald	Clothing	3,352 84	
Reliable Furniture Co...	Carpet-sweepers, pillows, bath-mats	133 30	
Ridley & Kennedy, Ltd..	Gasolene	7 90	
Ritchie Bros & Co	600 tulip bulbs	7 50	
Roadareul, G H	Gratuity on leaving institution	2 00	
Roberts, G W, M D	Rail fares	1 95	
Ross, N S	19 piano records	4 75	
Rothwell, E J, M D	Surgical attendance *re* accident to Attendant Colthurst	50 00	
Royal City Junk Co	Auger	1 50	
Royal Columbia Hospital	Hospital charges *re* Attendants McAllister and Colthurst	55 00	
Rushton, E	Car and rail fares	23 70	
Rushton, H	Prepaid freight	40	
Rushton, J W	Extra help in orchestra	3 00	
San Juan Mining & Mfg Co	Washing-powder and household cleanser	178 75	
Shell Co of California....	Gasolene	344 20	
Sherwin-Williams Co, Ld	25 gallons Old Dutch white enamel	144 25	
Simmons, Hugh	Gratuity on leaving institution	4 00	
Simmons, H D	Rent of house at Port Coquitlam occupied by Laundryman... 12 months @ $12.50	150 00	
Sinclair, J	Cleaning and adjusting master-clock	7 00	
Skinner, W T	(Paid) Car fares, gasolene, etc	5 55	
Smith, A	(Paid) Car fares, desk, etc	7 05	
Smith, F P, D D S	Dental work on patients	107 00	
Smith & Co, Ltd, T H	Sheets, blankets, oilcloth, damask, buttons, etc	2,518 98	
Snowdon, C C	Acetic acid and liquid floor-wax	31 77	
Speck, G R	Tennis racquets, balls, net, batteries, etc	66 98	
Stewart, M	Auto-hire	19 90	
Storey & Campbell	Auto-rug	15 00	
Studebaker Corporation.	Providing and attaching fender, shock-absorbers, motor-oil	46 95	
Swine Breeders' Assn...	Membership dues	2 05	
Temple-Pattison Co, Ltd	Hypodermic syringes and solder	4 85	
The Fair	Table-glasses, playing-cards, cash-book, etc	31 15	
Thompson, A W	Expenses taking patient to boat	1 45	
Todd, J H	Shuttle-carrier for sewing-machine	1 00	
Trapp & Co, Ltd, T J	Hardware, plumbing material, rubber hose, etc	1,435 78	
Troy Steam Laundry	Laundry-work	1 00	
United Typewriter Co, Ld	Typewriter ribbons, carbons, and repairs	13 25	
Universal Car Co, Ltd...	Gasolene	2 85	
Van Aken, G	Dressed oak lumber	5 00	
Van Halpen, E	Gratuity on leaving institution	2 00	
Vanc Daily Province:...	30-word advertisement, 3 times	1 15	
Vanc Dental Supply Co..	Half-gross crosscut fissure enamel burs, 2 single plain vulcanite teeth	7 74	
Vanc Gas Co, Ltd	Freight on steel pipe	27 00	
Vanc Motor Supplies, Ld	Gasolene	1 40	
V P R Meat Co, Ltd	Meat	10,024 86	
Warden, R	Rail fare	75	
Webb & Gifford	Making cast-iron arm, drilling, etc	13 77	
Weiler Bros, Ltd	Balance on fumed elm top rails	6 37	
Welsh, Ltd, C A	Groceries and provisions	27,355 31	
West Disinfecting Co	Liquid soap, sweeping-compound, metal-polish, etc	99 19	
Western Oil Supply Co..	Savage grip auto-casing	45 05	
Westminster Ironworks.	Boring rawhide gears, repairing wire screen	12 05	
White, J	Cutting cordwood	100 40	
Whiteway, W H	Expenses *re* escaped patient	60	
Wilson, J B	Purchase price of all standing and fallen timber on Lot 343 for the use of Hospital	250 00	
Wilson & Co, D D	Customs duty and brokerage	10 03	
Woodburne, G	Cutting cordwood	84 47	
Woodward, A J	60 lb. lawn grass-seed	30 00	
Young, T G	Axle shafts for Mack motor-truck	36 25	
			132,860 65
	Total, $80,499.31		
	Vote No. 29.—Colony Farm, Essondale.		
	SALARIES OF EMPLOYEES (INCLUDING BRANCH FARM).		
Stewart, M	Acting Superintendent ... 12 months @ $110	1,320 00	
Hambley, G	Herdsman ... 12 " 100	1,200 00	
Robertson, W C	Engineer ... 12 " 80	960 00	
McMurdo, J	Blacksmith ... 12 " 75	900 00	
Simmonds, J F	Recorder ... 6 months @ $65; 6 " 70	810 00	
Wickham, G	Dairyman ... 12 " 60	720 00	
Webster, A	Foreman (Branch) ... 11 " 60	660 00	
McNeill, P L	Accountant ... 12 " 50	600 00	
	Carried forward	.....	165,486 45

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	165,486 45
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	***Vote No. 29.—Colony Farm, Essondale.*—Continued.**		
	SALARIES OF EMPLOYEES (INCLUDING BRANCH FARM.—*Concluded.*		
Stewart, Sr, M	Head Groom ... 12 months @ $50	600 00	
Gardiner, R	Foreman (Farm) ... 12 " 45	540 00	
Milne, T	Groom ... 1 " 45	45 00	
Reid, W	do ... 1 " 3 d. 50	55 35	
Darrie, G	do ... 3 " 13 d. 75	256 45	
Kirkman, W	Head Cowman ... 5 " 8 d. 45	232 00	
Hogg, J	Cowman ... 3 " 12 d. 40	135 48	
Tapscott, G H	do ... 1 month @ $40; 3 months @ $45; 8 " 50	575 00	
Scott, G	do ... 1 " 40; 11 " 45	535 00	
Drinkwater, J	do ... 4 " 40	160 00	
Worth, F J	do ... 10 " 23 d. 40	430 65	
Johannson, J S	do ... 10 " 30 d. 40	438 70	
Pawson, H	do ... 8 " 7 d. 40	329 03	
Homer, A	do ... 4 " 2½ d. 40	163 22	
Rose, W	do ... 6 " 18 d. 40	263 30	
Mounce, H	do ... 3 " 22 d. 40	148 38	
Butt, C J	do ... 1 " 40	40 00	
Hamilton, J	Teamster ... 3 " 3 d. 40	123 87	
Kellus, J	do ... 10 " 40	400 00	
McArthur, J	do ... 12 " 40	480 00	
McLean, C A	do ... 26 days 40	34 65	
Thompson, H	do ... 10 months 40	400 00	
Thornton, D	do ... 1 " 40	40 00	
Davidson, G	do ... 7 " 26 d. 40	313 55	
Morrison, A	do ... 2 " 40	80 00	
White, R	do ... 1 " 24 d. 40	75 70	
Lee, W H	Cook ... 11 " 40	440 00	
Murdoch, A	do (Foreman) ... 1 " 85	85 00	
Valentine, H B M	Tester ... 59 days 2.50	147 50	
Taylor, C	Stable-boy ... 12 months 30	360 00	
	Total, $15,097.83		
	MAINTENANCE (INCLUDING BRANCH FARM).		
Anderson & Lusby	Fire-buckets, steel, heater, hardware, etc	55 22	
Avery, T H	Towing scows and scow-hire	160 00	
Baker, G T	Blacksmithing	21 25	
Begg & Co, Ltd, F R	White paint and linseed-oil	109 06	
Brackman-Ker M Co, Ld	Hay, bran, oats, fertilizer, seed, etc	4,701 80	
Breeders' Gazette	Subscription	2 05	
B C Electric Co, Ltd	Electric llght and power, $1,198.26; freight, 65c	1,198 91	
B C Telephone Co, Ltd	Telephone rental, $78; long-distance calls, $85.95	163 95	
Burch & Co, F S	Markers, figures, alphabet, etc	11 33	
Burr, W R	Typewriter ribbon	1 00	
Burns & Co, Ltd, P	Meat	265 20	
Can Bank of Commerce	Exchange on cheque	90	
Can Fairbanks-Morse Co	Copper plates, piston-rings and switch fingers	5 29	
Can Nat Live Stock As'sn	Transfer fees and registration	11 68	
Canadian Farm	Subscription, 1916	1 00	
C P Railway Co	Telegrams, $9.25; freight, 75c	10 00	
Canadian Photo Co	Photographs of stock	15 45	
Can Western Lumber Co	Lumber, sawdust, etc	70 85	
Clemons, W A	Applications for registration, etc	22 17	
Columbian Co, Ltd	12 dairy invoice books	7 00	
Corporation of Delta	Water, $18; taxes, $781.99	799 99	
Cunningham H'dwre Co	6 sacks coke	2 00	
Curtis & Co, D S	Drugs, cattle-medicines, etc	88 40	
Dann, C H	Ear-punch	1 00	
Davison, S J	Saddlery and repairs	60 25	
De Laval Dairy Sup'ly Co	Test-bottles, caps, brushes, etc	34 00	
Delta Saddlery	Halters, bits and leather	3 55	
Delta Telephone Co	Exchange service, $15; long-distance calls, $18.40	33 40	
Dennis, L J	2 tons early seed-potatoes	50 00	
Drinkwater, A	Towing scow	8 00	
Farm & Dairy	Special number write-up	30 00	
Farrell, W	90 bushels special seed-oats	180 00	
Fisher's Drug & Book Store	Drugs, sponges	2 65	
Frew, J	Sawdust	4 00	
Gardiner, M H	Express order	3 05	
Gaskell Book & Stat Co.	Binding cases, typewriter ribbon, loose-leaf binder	8 05	
Gilley Bros	Coal and lime	124 18	
Gray, W	2½ days ditching @ $40 per month	3 35	
G N W Telegraph Co	Telegrams	7 73	
Hambley, S G	Expenses in connection with exhibit of cattle at Vancouver Fair, etc	54 50	
Harris Bros	Cordwood	102 50	
	Carried forward	.....	165,486 45

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		165,486 45
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—***Continued.***		
	Vote No. 29.—Colony Farm, Essondale.—Concluded.		
	MAINTENANCE (INCLUDING BRANCH FARM).—*Concluded.*		
Hastings & Co, E M	4 loose-leaf pedigrees for cows	4 07	
Hess, J	Cleaning chimneys and furnace-pipes	14 75	
H M Customs	Duty on ear-punch and tag-stamps	2 35	
Houghton, F L	Registration of cattle	16 12	
Hume, T	1 ton oats	28 00	
Hyslop Hardware Co	Hardware, glass, brooms, brushes, etc	634 23	
Imperial Oil Co, Ltd	Gasolene	79 20	
Imp Varnish & Color Co	Fly-spray, pump, and wire-stretcher	3 25	
James Brooks Wood-working Co, Ltd	6 pieces maple and cartage	3 50	
Jaynes, W R	Welding syringe	75	
Jenks, M V	Carrying laundry from New Westminster to Sunbury	40 00	
Kelly Confection Co, Ld	Molasses	113 80	
King, Mrs A	Typing farm semi-annual statement and 30 pages annual report	17 50	
Ladner Meat Market	Meat	71 95	
Lanning, Fawcett & Wilson	Turpentine, rope, and coal-oil	7 70	
Lombie, R	Shearing sheep	4 50	
Mahony & Gifford	Putting bands on milk-cans	6 65	
Mainland Navigation Co	Freight	95 80	
Mansell, R K	Services as Official Supervisor of Milk and Fat Test, 265 days @ $2.50	662 50	
Montgomery, W	2 tons early seed-potatoes	40 00	
MacKenzie, D E	14 tons seed-potatoes	280 00	
MacKenzie, N W	Services as Official Supervisor of Milk and Fat Test, 28 days @ $2.50	70 00	
MacLennan's Drug Store	Spirits of nitre	1 00	
McClugan Bros	1 imported Oxford Down ram	40 00	
McKay, J G, M D	Expenses *re* cattle-sales	201 90	
McKay, K	Hire of team and man during threshing, 3¾ days @ $6	22 50	
McLeod, A W	Insurance premiums	99 37	
McMurdo, J	Rail and car fares	8 05	
McWaters, R	Wharfage	60 10	
Nat Live Stock Records	Membership fee to Canadian Shire Horse Association for 1916	2 05	
Northern Electric Co	Silk and cotton lead-cased wire, reel, water-proof Wacco wire, etc	109 08	
Ottewell, F W, V S	Professional services	37 00	
Peterson, C	Straw	195 00	
Postmaster, Essondale	Postage-stamps and postal notes	39 42	
Prior & Co, E G	Forks	1 58	
Ramsay & Son Co, A	1 dozen wire brushes and freight	6 35	
Reid & McDonald	Overalls, duck pants, aprons, etc	35 05	
Rennie & Co, Ltd, W	Seeds	5 60	
Rich, H N	30 lb. sack-twine	19 50	
Royal Crown Soaps, Ltd	1 barrel of English soft soap	38 25	
Rushton Machine Works	Freight on oil	25	
Ryall, H	Sulphuric acid, Castile soap, saltpetre, etc	53 40	
Scottish Farmer	Subscription to 26th May, 1917	3 05	
Smith Bros	Meat	219 79	
Smith Co, Ltd, T H	Sheets, blankets, towels, etc	31 14	
Snowdon, C C	Rape-seed oil, harness-dressing, etc	28 35	
Stewart, M (Actg Supt)	Travelling expenses	195 00	
Storey & Campbell	Saddlery and repairs	64 32	
Swenerton, W, V S	Professional services	15 00	
Tamboline, J	Threshing grain-crop	281 85	
Thomson Stat Co, Ltd	Binder, ledger-leaves, journal	8 90	
Trapp & Co, Ltd, T J	Hardware, twine, oil, grease, etc	539 45	
Valentin, H B M	Services as Official Supervisor of Milk and Fat Tests, 15 days @ $2.50	37 50	
Vanc Fire Despatch Co	Services attending the fire-alarm system	40 40	
V P R Meat Co	Lard	60	
Vernon Feed Co	Hay, oats, straw, etc	77 00	
Vulcan Iron Works, Ltd	Overhauling and repairing dairy-boiler	6 10	
Watson, Dr W	Professional services to cattle	55 00	
Webb & Gifford	Castings, etc	56 33	
Webster, A (Foreman)	Expenses *re* delivery of cattle, $5.85; wages to haymakers, $473.32	479 17	
Welsh, Ltd, C A	Groceries and provisions	502 35	
West Disinfecting Co	Soap-powder	19 60	
Wilson & Co, D D	Customs duty and brokerage on alfalfa-hay	2 98	
Wilson, Dr J Ker	Rent of Colony Farm Branch, Sunbury, from 1st January, 1916, to 31st Dec., 1916	5,500 00	
Pay-lists	Labour, threshing grain at Sunbury Branch	205 70	
	Total, $19,976.36		
	PART PAYMENT AMOUNT PURCHASE PORTION OF LOTS 170 AND 305, GROUP 1, NEW WESTMINSTER DISTRICT, AND INTEREST.		
Long, S N	Second payment in connection with above (purchase price, $6,000)	2,000 00	
	Interest on $4,000 @ 6% from 28th August, 1915, to 28th August, 1916	240 00	
	Total, $2,240		37,314 19
	Carried forward		202,800 64

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	202,800 64
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	Vote No. 30.—Nursery, Essondale.		
	SALARIES OF EMPLOYEES.		
Stinchcombe, E B	Foreman ... 12 months @ $100	1,200 00	
Van Aiken, J	Nurseryman ... 11 " 75	825 00	
Van Meel, J	do ... 12 " 70	840 00	
Shaw, E J C	do ... 12 " 70	840 00	
Renton, J	do ... 1 " 75	75 00	
Fournier, G	do ... 7 " 40	280 00	
	Total, $4,060		
	MAINTENANCE.		
Anderson & Lusby	1 lb. copper rivets and burrs	1 00	
Brand & Co, J	Seeds and bulbs	46 30	
B C Transport Co, Ltd	4 barrels of quicklime	5 80	
Burpee Co, A	Assorted kitchen-garden seeds and freight	54 49	
Brunette Sawmills Co	Lumber	63 02	
C P Railway Co	Clearing snow from switches at Essondale	1 21	
City Market	2 tons seed-potatoes	40 00	
Columbian Co, Ltd.	Subscription to "British Columbian" to August 6th, 1917	1 00	
Davison, S J	Saddlery and repairs	5 60	
Erskine, R	Blacksmithing	1 70	
Fales, W E	Second-hand burlap	4 20	
G N W Railway Co	Freight on sulphur	75	
H M Customs	Duty on sulphur	1 00	
Lilly Co, C H	Sulphur	4 00	
McKay, K	Teaming ... 1¾ days @ $6	10 50	
McKenzie Co, Ltd, A E	Alfalfa-seed, farmogerm, etc	20 95	
Ritchie Bros	1,000 painted wood tree tables	3 50	
Trapp & Co, Ltd, T J	Hardware	189 57	
Van Aken, G	Expenses *re* selection of stock	1 75	
V P R Meat Co, Ltd	38 cars manure @ $40	1,520 00	
Wilson, J B	3,000 cabbage-plants	7 50	
Woodward, A J	6 oz. cabbage-seed	1 40	
	Total, $1,985.24		6,045 24
	Vote No. 31.—Mental Hospital, New Westminster.		
	SALARIES OF EMPLOYEES.		
Fillmore, M	Matron ... 12 months @ $120	1,440 00	
Johnston, W F	Engineer ... 12 " 90	1,080 00	
Archibald, T D	2nd Engineer ... 12 " 70	840 00	
McIntosh, F P	Cook ... 12 " 90	1,080 00	
Rees, R	Steward ... 12 " 90	1,080 00	
Green F	Baker ... 12 " 80	960 00	
Jones, E B	Laundryman ... 12 " 75	900 00	
Bailey, H	Farmer ... 12 " 75	900 00	
Cormack, T	Carpenter ... 12 " 80	960 00	
Oliver, W H	Plumber ... 12 " 75	900 00	
Beggs, W F	Tailor ... 12 " 75	900 00	
French, A	Assistant tailor ... 12 " 75	900 00	
Selater D	Painter ... 12 " 80	960 00	
McDonald, R C	Shoemaker ... 12 " 75	900 00	
McKean, S	1st fireman ... 12 " 70	840 00	
Huntley, S	Tailoress ... 12 " 45	540 00	
Exley, A M	Nightwatchman ... 11 months 27 days @ $55, less military pay	513 08	
Jones, B	do ... 11 " 29 " 55 " 150	508 16	
Jones, G	do ... 12 months 55	660 00	
Birkby, H	do ... 12 " 51	612 00	
O'Reilly, J F	Deputy Chief Attendant ... 12 " 70	840 00	
Hoult, H	Chief Attendant ... allowance while on military duty, 12 " 20	240 00	
Spooner, F	do ... 12 " 75	900 00	
Hewton, W	Charge Attendant ... 12 " 55	660 00	
Houle, O	do ... 12 " 55	660 00	
Callaghan, J	do ... 12 " 55	660 00	
Fraser, J	do ... 12 " 64	768 00	
Saunders, W	do ... 4 " 54	216 00	
Ewbank, W	do ... 12 " 53	636 00	
Monteith, C A	do ... 12 " 54	648 00	
Ellwood, W	do ... 12 " 55	660 00	
Orme, J W	do ... 12 " 52	624 00	
Fedewa, C	do ... 12 " 52	624 00	
Pirrie, W	do ... 8 " 18 d. 51	437 61	
Gilmour, W	Under Attendant ... 6 " 7 d. 44	273 94	
Jones, F	do ... 4 months @ $43; 8 " 50	572 00	
Booth, W J	do ... 12 " 32	384 00	
Watson, J W	do ... 1 " 42	42 00	
	Carried forward	.....	208,845 88

TO WHOM PAID.	FOR WHAT SERVICE.				$ cts.	$ cts
	Brought forward					208,845 88
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*					
	Vote No. 31.—Mental Hospital, New Westminster.—Continued.					
	SALARIES OF EMPLOYEES.—*Continued.*					
Waltham, T	Under Attendant	4 mos. 8 d. @	$42		178 84	
Johnston, R F	do	7 months @ $42;	5	" 50	544 00	
McKnight, H	do		2	" 5 d. 44	95 33	
Bennett, F W	do		3	" 8 d. 41	133 58	
Hume, L	do		8	" 17 d. 41	350 48	
Ainsworth, J	do		1	" 41	41 00	
Groves, R	do		3	" 16 d. 40	140 65	
Dunlop, J	do		1	" 40	40 00	
Robinson, J	do		1	" 21 d. 40	68 00	
DeBeck, C H	do		2	days 40	2 67	
Holland, J	do	5 months 30 days @ $40;	5	months 50	488 71	
Balsdon, W	do		10	" 30 d. 40	438 71	
Latten, R J	do		6	" 10 d. 40	253 37	
Gray, J	do		10	" 40	400 00	
Evans, C H	do		9½	" 40	380 00	
Rhodes, J	do		6	" 3 d. 40	243 87	
Silver, J	do		4	" 24 d. 40	190 96	
Kelsey, T	do		8	" 10 d. 40	332 90	
Dahling, E	do		9	days 40	11 61	
Warden, R	do		1	month 1 d. 40	41 29	
Whittaker, W	do		8	months 40	320 00	
O'Hara, P	do		12	days 40	16 77	
Norman, G H	do		5	months 8 d. 40	210 32	
Hill, G M	do		22	days 40	28 38	
Wilkinson, C E S	do		3	months 5 d. 40	126 45	
Woods, S L	do		25	days 40	32 26	
Orr, R L	Charge Nurse		12	months 40	480 00	
O'Reilly, C	do		12	" 38	456 00	
Jones, L	do		12	" 37	444 00	
Clarke, E	do		12	" 33	396 00	
Tovey, G	do		9	" 32	288 00	
Evenett, C	do		12	" 32	384 00	
Speak, A L	do		12	" 32	384 00	
Beaddie, E	do		12	" 32	384 00	
Watson, M	Charge Night Nurse		12	" 39	468 00	
Anderson, M	Assistant Night Nurse		12	" 38	456 00	
Truman, A	do		12	" 34	408 00	
Thompson, E	Under Nurse	7 months @ $29.50;	5	" 31	361 50	
Crowley, K	do	7 " 29.50;	5	" 31	361 50	
Barlow, J	do		6	" 29.50	177 00	
Bruce, A	do	7 months @ $29.50;	5	" 31	361 50	
Moffitt, L	do		12	" 29.50	354 00	
Naylor, A	do		12	" 28.50	342 00	
Smith, A	do		12	" 28.50	342 00	
Kelly, I	do		12	" 31	372 00	
McGowan, I	do		12	" 28.50	342 00	
Early, M J	do		12	" 28.50	342 00	
McQuillam, C M	do		12	" 28.50	342 00	
Mills, A C	do		12	" 28.50	342 00	
Roope, A G	do		2	" 27.50	55 00	
Colvin, M	do		10	" 27.50	275 00	
Pentland, S	do		7	" 12 d. 27.50	203 14	
Gosse, G	do		5	" 27.50	137 50	
Barnet, A	do		1	" 27.50	27 50	
White, C	do	and Housemaid 10 months @ $27.50;	1	" 7 d. 18	297 20	
Stewart, N	Housemaid		20	days 18	12 00	
Robertson, K	do		2	months 18	36 04	
Drinkwater, F	do		1	" 20	20 00	
Taylor, M	do		2	" 11 d. 25	59 17	
French, M	do		2	" 25	50 00	
Rogers, J	do		12	" 25	300 00	
Radford, M	Seamstress		3	days 25	2 60	
Derby, L	do		12	months 26	312 00	
Pennington, M	do		11	" 25 d. 25	295 83	
Bunney, M	Laundry Maid	5 months @ $28.50;	1	" 26 d. 38.50	214 37	
Campbell, A M	Mason	12 " 75, less military pay			365	535 00
Smith, F P	Dentist		9	months 40	360 00	
Matthews, C H	Photographer		4	" 25	100 00	
Leash, H E	do		8	" 25	200 00	
Ryan, E J	Assistant Physician		1	" 3 d. 150	166 07	
Salter, C	Mess Orderly		12	" 60	720 00	
Rushton, E	Auto-driver		12	" 80	960 00	
Lennie, Rev R	Protestant Chaplain		12	" 20.83	249 96	
Murphy, Rev S	Roman Catholic Chaplain		12	" 20.83	249 96	
Booth, J	Gardener		12	" 80	960 00	
Mackness, H D	Orchestra		12	" 25	300 00	
Vass, V M	do		12	" 16	192 00	
	Carried forward					208,845 88

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		208,845 88
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	Vote No. 31.—Mental Hospital, New Westminster.—Continued.		
	SALARIES OF EMPLOYEES.—*Concluded.*		
Monteith, C A	Orchestra, 12 months @ $ 4	48 00	
Salter, C	do 12 " 4	48 00	
Ewbank, W	do 12 " 4	48 00	
Jones, B	do 7 " 4	28 00	
Saunders, W	do 4 " 4	16 00	
Birkby, H	do 12 " 4	48 00	
Hunt, W E	Stenographer 12 " 77	924 00	
Lee, H	Assistant Cook (officers' quarters) 12 " 35	420 00	
	Total, $49,886.78		
	MAINTENANCE.		
Agnew, F V, M D	Certificates of insanity, 6 @ $5	30 00	
Albion Motor Express	Freight	8 95	
Albion Stove Works, Ltd	Range-plates, rings, and covers	28 80	
Amer Laundry Mach Co	Prosperity soda	116 90	
Anderson & Lusby	Hardware, white lead, oil, etc	210 54	
Annals of Surgery	Subscription to February, 1918	5 00	
Annandale Supply Co	Groceries and provisions, etc	18,489 78	
Archibald, M G, M D	Certificates of insanity, 4 @ $5	20 00	
Arnold, F H	Dentist supplies	4 00	
Arthur, I, M D	Certificate of insanity	5 00	
Asseltine, B, M D	do 3 @ $5	15 00	
Ayres Varnish Co	Floor polish, oil, varnish, etc	51 30	
Balfour, Guthrie & Co	Cartage on ironwork	75	
Barber, C G	Expenses *re* investigation at Hammond	2 25	
Begg Motor Co	Accessories for motors	39 25	
Belyea & Co, Ltd	Coal, $2,918.12; duty and brokerage on locks, $42.53	2,960 65	
Blue, G S	(Paid) Medical examination of H. Singh by Drs. McEwen and McQuarrie	10 00	
Blue Funnel Motor Line	Auto-hire *re* escaped patients	7 50	
Borden, L E, M D	Certificates of insanity, 3 @ 5	15 00	
Bowell Co, S	Burial of 7 patients @ $7	49 00	
Brackman-Ker M Co, Ltd	Lime and sulphur spray, fertilizer	39 05	
Brand & Co, J	Bulbs, seeds, ammonia, etc	159 75	
Brethour, C D	Expenses, escorting patient to Hospital from Ocean Falls	15 15	
Brinker, J	1 vol. Goss' "Morbid Anatomy of the Brain"	1 30	
Brown Bros & Co, Ltd	Plants	1 50	
B C Electric Ry Co, Ltd	Power, $167.36; freight, $3.35	170 71	
B C Telephone Co, Ltd	Exchange service, $336; long-distance calls, $67.60	403 60	
Burr, W R	Letter-book	2 65	
Burris, Archibald & Burris	Certificates of insanity, 9 @ $5	45 00	
Bursar, The	Petty-cash payments	187 53	
Buscombe & Co, F	Crockery	226 62	
Cade, J P, M D	Certificates of insanity, 2 @ $5	10 00	
Cameron, J P	Dry-goods	3,492 00	
Can Consol Rubber Co	Inner tubes and nobby casings	108 16	
C P Railway Co	Telegrams, $15.88; freight, $4.20	20 08	
Canadian Photo Co	Panorama photo and prints	18 50	
Carswell, D F, M D	Certificates of insanity, 4 @ $5	20 00	
Cassidy's, Ltd	Crockery	220 22	
Chandler & Fisher, Ltd	Drugs, bandages, gauze, etc	154 71	
Christie, Dr	Certificate of insanity	5 00	
City Market	20 sacks turnips	15 00	
Clarke, S, M D	Certificate of insanity	5 00	
Clarke & Stuart Co, Ltd	Ledgers, sheets, binders, etc	43 11	
Clausen, A	Cleaning clocks	7 50	
Cleland Dibble Engrav Co	Half-tones	32 35	
Corp City New Westmstr	Electric light, $1,387.60; water, $2,344.41	3,732 01	
Coy, F E, M D	Certificate of insanity	10 00	
Crane Co	Plumbing material	1 45	
Crompton, K E, M D	Certificate of insanity	5 00	
Cunningham Hdware Co	Hardware, cutlery, etc	322 30	
Curry & Ryan	Cleaning chimneys	11 00	
Curtis & Co, D S	Drugs, medicinal supplies, etc	706 06	
Curtis, G F, M D	Certificates of insanity, 4 @ $5	20 00	
Davies & Son	250 flower-pots	10 00	
Davison, S J	Saddlery and repairs	3 25	
Dominion Exclusives, Ld	Rent of films	12 00	
Dominion Express Co	Expressage	2 00	
Dougan, J J	2 vols. Curschman's "Mental Diseases"	12 00	
Drew, G E, M D	Certificate of insanity	5 00	
Drysdale, W F, M D	do	5 00	
Edwards Bros	Photographic supplies	54 80	
Eggert, C A, M D	Certificate of insanity	5 00	
Ewert, C, M D	do 3 @ $5	15 00	
Ewert, P, M D	do	5 00	
	Carried forward		208,845 88

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		208,845 88
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	Vote No. 31.—Mental Hospital, New Westminster.—Continued.		
	MAINTENANCE.—*Continued.*		
Fales, W E	Burial of 4 patients @ $7	28 00	
Fraser River Fish Co	Fish	944 80	
Freeman, T	Whisky, brandy, etc	117 80	
Gaskell Book & Stat Co	Special letter-books, pin tickets	7 75	
General Film Co	Rent of films	84 00	
Gibbons, J	Locks, keys, Customs duty, etc	134 20	
Gilley Bros, Ltd	Sewer-pipe	3 12	
Gilmour Bros Co	Horlick's malted milk	60 00	
Grain Growers B C Agcy	Hay, oats, bran, etc	2,788 44	
Grant, J F, M D	Certificates of insanity, 3 @ $5	15 00	
Grant, T H	100 dozen hot cross buns	12 50	
G N Express Co	Expressage	7 90	
G N W Telegraph Co	Telegrams	14 37	
Hargreaves Ltd	Metal-polish	10 80	
Hartin, D, M D	Certificate of insanity	5 00	
Hartz Co, Ltd, J F	400 lb. Eureka absorbent cotton	140 00	
Henderson, G B, M D	Expenses *re* certificate of insanity	15 00	
Hill, F T	Chamois-skin	1 00	
H M Customs	Duty	1 30	
Hudson, H P	Wall and ceiling paper	14 97	
Hudson's Bay Co	Combs	27 03	
Hyslop Hardware Co	Hardware	87 71	
J Brooks Woodwrkng Co	Sash-bar, turned feet for beds, etc	20 23	
Johns Hopkins Press	3 vol. "Institutional Care of the Insane," subscription to "American Journal of Insanity"	13 86	
Johnston's Big Shoe Hse	Gum boots, laces	32 00	
Jones, E B	Marking-ink and nibs	7 83	
Jour Nerv and Mental Dis	Subscription, 1916 and 1917	16 00	
Kerr, F L	Motion-picture entertainment	20 00	
King, C D	Making 3 dental plates for patients	7 50	
Kingston, C M, M D	Certificate of insanity	5 00	
Kirk, H T	Plumbing materials, white lead, paint, etc	491 36	
Lea & Febiger	Subscription to "American Journal of Medical Science," 1917	5 00	
Lippincott Co	Books	12 50	
Lipsett, E	Duck, nets	66 75	
Lovick, A C	Subscription, 2 copies "News-Advertiser"	12 00	
Lovick, H	do 2 " "The World"	10 00	
Lynch, F J	Cigars for patients Christmas dinner	16 25	
Mackness, H D	Extra help in orchestra and new music	161 50	
Mander Bros	14 lb. Olsina water-paint	3 08	
Marshall-Wells Co	Ratchets, blades, gears, etc	5 14	
Marlett, C R, M D	Certificates of insanity, 2 @ $5	10 00	
Mayers, J	Coal	3,410 07	
Medico Legal Journal	Subscription, 1 year to March, 1918	4 48	
Medical Revw of Reviews	do " January, 1918	6 75	
Merchants, Ltd, The	Remnant of carpet	3 50	
Millard, H P, M D	Certificates of insanity 2 @ $5; buggy-hire, $6	16 00	
Modern Hospital Pub Co	Subscription to "Modern Hospital," 1 year to August, 1917	3 00	
Monteith, C A	Part transportation of patient De Cesare, deported to Italy	74 00	
Morey & Co, H	Magazines, etc	32 30	
Moulton, C	Electrical fittings, etc	232 27	
Murchie & Son	Burial of 6 patients @ $7	42 00	
MacDonald, B	Repairing and covering chairs, lounges, etc	46 00	
MacLean, J D, M D	Certificates of insanity 2 @ $5	10 00	
McCaffery, P S, M D	do	5 00	
McCallum, C M D	do 2 @ $5	10 00	
McColl Bros & Co	Cylinder oil	60 65	
McEwen, S C, M D	Certificates of insanity 3 @ $5	15 00	
McGregor, H, M D	do 2 5	10 00	
McIntyre, W H, M D	do 5 5	25 00	
McKay, D M, M D	do	5 00	
McKay, J G, M D	Travelling expenses	90 00	
McLean, E H S, M D	Certificates of insanity 4 @ $5	20 00	
McPhee, T J, M D	do	5 00	
New Home Sewing Machine Exchange	Second-hand machine	16 00	
New Westminster Gas Co	Gas	925 81	
Office Specialty M'fg Co	Folders	7 50	
Ovens, T	Blacksmithing	72 05	
Oxford Dairy Co, Ltd	Buttermilk	25	
Parke, Davis & Co	Drugs	75 22	
Petersky, S, M D	Certificate of insanity	5 00	
Pitner & Co, Ltd, C	Map of B.C.	6 50	
Postmaster, Essondale	Postage-stamps, $210; rent of post-office drawer, 2 years, $16	226 00	
Reid & McDonald	Clothing	892 50	
Reliable Furniture Co	Feather pillows, altering carpet	11 75	
Ritchie, W L, M D	Certificates of insanity, 3 @ $5; auto-hire, $5	20 00	
	Carried forward		208,845 88

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	208,845 88
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	Vote No. 31.—Mental Hospital, New Westminster.—Concluded.		
	MAINTENANCE.—*Concluded.*		
Roberts, G W, M D	(Paid) Telephone service	20 20	
Robson, W	Shifting scow	5 00	
Rothwell, E J, M D	Surgical operations, 3 @ $75; 1 @ $50	275 00	
Royal City Decorat'ng Co	Kalsomine, wall-paper, etc	43 20	
Royal City Glass Co	Glass	5 20	
Royal Ice Works	Ice	57 20	
Ryall, H	1 dozen hair-brushes	6 00	
Shaw, W F, M D	Certificates of insanity, 4 @ $5; boat-hire, $6	26 00	
Shell Co, of California	Gasolene	884 30	
Simms & Co, Ltd, F S	Brush for polisher	62	
Singer Sewing M'chne Co	Machine-oil and repairs	17 55	
Smith, F P, D D S	Dental work	75 00	
Smith Co, Ltd, T H	Dry-goods	3,036 65	
Smith, Davidson & Wright	Toilet-paper	85 00	
Snowdon, C C	Metal-polish	18 12	
Spec'lty Film Import, Ld	Lenses	9 00	
Speck, G R	Tennis racquets, balls, tires, etc	53 85	
Stanier, F T, M D	Certificates of insanity, 2 @ $5	10 00	
Stanley Brock, Ltd	Lime, starch, padding, acetic acid, etc	309 55	
Stevens Co, Ltd, B C	Syringe, bellows, sheeting, gauze, etc	105 60	
Stone, W R, M D	Certificates of insanity, 3 @ $5; rail fare and meals, $17.25	32 25	
Storey & Campbell	Leather, boot-repairing materials	1,314 44	
Stuart, A J, M D	Certificate of insanity	5 00	
Sun, The	Subscription to October 17th, 1917	3 00	
Sutherland & Hamilton, M D's	Certificates of insanity, 3 @ $5	15 00	
Telford, L, M D	Certificate of insanity	5 00	
Temple-Pattison Co, Ltd.	Dental supplies	92 89	
The Fair	Playing-cards	9 50	
Tomalin, W J C, M D	Certificate of insanity	5 00	
Trapp & Co, Ltd, T J	Hardware, oil, white lead, etc	896 02	
Tremayne, H E, M D	Certificate of insanity	5 00	
Troy Laundry Mach Co	Acetic acid, starch, etc	48 50	
Truax, W, M D	Certificate of insanity	5 00	
Turnor & Hetherington, M D's	do	10 00	
Tuthill, G H, M D	do	5 00	
United Typewriter Co	Inspection of typewriters	24 00	
Vanc Daily Province	Subscription, 3 copies, to April 30th, 1917	18 00	
V P R Meat Co, Ltd	Meat	8,247 52	
Victoria Daily Colonist	Subscription, 2 copies, 2 years to January 1st, 1918	20 00	
Walker, R E, M D	Certificates of insanity, 5 @ $5	25 00	
Walker, W	Orpington cock for breeding purposes	5 00	
Warden of B C Penitentiary	6 tons sheep-manure	6 00	
Wasson, H J, M D	Certificate of insanity	5 00	
Welsh, Ltd, C A	Groceries and provisions	21 00	
Westminster Brewery	Grains for piggery	112 00	
White R B, M D	Certificates of insanity, 2 @ $5	10 00	
Willson, W H, M D	Certificate of insanity	5 00	
Wilson & Co, D D	Duty on draught-recorder and acetic acid	106 69	
World, Ltd, The	Subscription to December 31st, 1917	5 65	
Young, T G	Timken bearing and cup for Mack truck	10 62	
	Total, $60,348.44		110,235 22
	Vote No. 32.—Printing Office, Victoria.		
	Maintenance.		
	EXTRA ASSISTANCE PRINTING OFFICE AND BOOKBINDING BRANCH, INCLUDING SESSIONAL WORK AND ALLOWANCE FOR OVERTIME.		
Pottinger, G H	Linotype operator.....190 days @ $5; 12 nights @ $5.50; 4 hours @ $ 1	1,020 00	
Urquhart, F W	do ..... 5 nights 5.50	27 50	
Taylor, J	Compositor ..... 47½ days 5	237 50	
Martin, G E	Apprentice..... 10 months 24 days @ $75; 19 " 2.90	862 70	
Orchard, R P	Helper..... 12 months . 75	900 00	
Cullingford, W	do ..... 5 " 5	25 00	
Halsted, A	do ..... 12 months @ $75, less military pay 584	316 00	
Winters, J M	Forwarder ..... 10 months 23 d. 100	1,176 90	
Wiley, J A	do ..... 12 " 100	1,200 00	
Craft, E P	do ..... 12 " 100	1,200 00	
Scott, J	do ..... 11 months @ $100; 23 days 3.85	1,188 55	
Hitchcock, V S	do ..... 12 months @ $100, less military pay 365	835 00	
Dangerfield, J	Folder and Sewer..... 12 months 45	540 00	
	Carried forward	.....	319,081 10

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	319,081 10
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	Vote No. 32.—Printing Office, Victoria.—Continued.		
	Maintenance.—Continued.		
	EXTRA ASSISTANCE PRINTING OFFICE AND BOOKBINDING BRANCH, INCLUDING SESSIONAL WORK AND ALLOWANCE FOR OVERTIME.—*Concluded.*		
Richardson, A	Folder and Sewer ... 12 months @ $50	600 00	
Cudlip, P G	Clerk ... 1 month @ $85; 5½ days 3.25	102 90	
Arthurs, J L	do (additional to salary) ... 4 months @ 10	40 00	
Price, S	Junior Clerk ... 3 " 30	90 00	
Fatt, N	do ... 6 " 30	180 00	
Neelands, F H	Compositor ... 72½ days @ 5	362 50	
Petrie, J	do ... 33 " 5	165 00	
McLaurin, E A	do ... 32 " 5	160 00	
Cullin, W H	King's Printer (sessional allowance overtime)	100 00	
Pay list	Overtime	306 40	
Tilly, T H	Copy-holder ... 8 days @ $3	24 00	
Kerchin, W	do ... 8 " 3	24 00	
	Total, $11,683.95		
	PRINTING PAPER, MATERIALS, AND INCIDENTALS.		
Armstrong Bros	Springs and bolts	1 50	
Ault & Wiborg Co, Ltd	Wonder Black, Klean Cut, varnish	69 45	
Babcock, R W	Sheet glue	17 92	
Barber-Ellis, Ltd	Paper	909 90	
Barnhart Bros & Spindler	Knives, card-cutters and sundry parts for machines	245 85	
Beattie-Murphy Co, Ltd	2,000 Moore sheets for use in Government Office, Cranbrook	14 00	
B C Electric Ry Co, Ltd	Power, $417.92; repairs to armatures, etc., $158.71	576 63	
B C Saddlery Co, Ltd	Straps, splicing belt, etc	5 85	
British Leather Cloth Mfg Co, Ltd	Rexene leather cloth	86 05	
Brown Bros, Ltd	Screw-binder metals	32 10	
Buntin Gillies & Co, Ltd	Gold leaf, tape, cord, etc	309 21	
California Ink Co	Ink	47 85	
Canadian Linotype, Ltd	Linotype parts, etc	100 76	
Can Consol Rubber Co	Tubing	4 37	
Carter Electric Co	Making heater, elements, fuses	13 15	
Chicago Lino-Tabler Co	Rent of matrices and broach, 1 year	35 00	
Clarke & Stuart Co, Ltd	Paper	493 18	
Colonist P & P Co, Ltd	Copper half-tones, zinc line cuts, binder metals, etc	391 72	
Columbia Paper Co	Paper	6,936 27	
Columbia Printing Ink & Roller Co	Rollers, padding composition, paste, ink, etc	130 50	
Cooley & Son, H	Zinc, galvanized-iron pan	7 00	
Copas & Young	Vinegar, brooms, flour	6 55	
Cottrell, G H	Freight	6 10	
Cowan & Sons, A	Paper, packing, and freight charges	8,083 61	
Cusack, T R	Paper	53 20	
Dawson, Ltd, W V	do	173 25	
Dominion Express Co	Expressage	2 25	
Drake Hardware Co, Ltd	Hardware	47 64	
Eddy Co, Ltd, E B	Paper	5,347 21	
Edwards, H	Casting welded	50	
E & N Ry Co, Ltd	Freight on paper	193 81	
Fernie Free Press	Printing ballots *re* "Coal-mines Regulation Act" for Coal Creek, Corbin and Michel	18 00	
Fraser & Co, G A	Sponge and alcohol	1 10	
Fraser & Co, Ltd, W S	Hardware, oil, etc	16 03	
George & Co, A	Brokerage	3 75	
Hafer Machine Co, Ltd	Sharpening, grinding, brazing, etc	85 45	
Hall & Co, N F	Cowhide paper, paste-brushes, etc	570 71	
Heaney J	Haulage	2 50	
Hickman-Tye Hdwre Co	Belting, sandpaper, files, etc	13 97	
H M Customs	Duty	2,090 48	
Hoe & Co, R	3 rolls tapes	3 15	
Houghton & Evans	Type, steel die cameo, repairs, etc	145 26	
Imperial Oil Co, Ltd	Royalite, polarine and grease	35 30	
Islander Ptg & Pub Co	Printing ballots for Mines Department	5 00	
Johnson & Co, Ltd, C E	Bronze powder, varnish, black	18 75	
Kelly, Douglas & Co, Ltd	No-water soap	4 50	
Kirkham & Co, Ltd, H O	Vinegar	50	
Leigh & Sons	Cutting sticks, blocks to detail	44 10	
Lemon-Gonnason Co, Ltd	Keg-ends	1 80	
Lepard & Smith, Ltd	Paper	536 13	
Lofts & Bosustow	Screws, taper reamers, washers, repairs, etc	120 45	
Mander Bros	Ink	506 30	
Marvin & Co, E B	Tallow, white lead, waste, etc	22 36	
Melrose Co	Brushes, Japan dryers	2 47	
Menzies & Co, Ltd	Paper, erasers	272 50	
	Carried forward	.....	319,081 10

TO WHOM PAID	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	319,081 10
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	Vote No. 32.—Printing Office, Victoria.—Concluded.		
	Maintenance.—Concluded.		
	PRINTING PAPER, MATERIALS, AND INCIDENTALS.—*Concluded.*		
Merritt Herald	Printing ballots for Mines Department	2 50	
Miehle Ptg P & Mfg Co	Release-valves, rubber rings, press-boards, etc	25 63	
Miller & Richards	Type, etc	282 10	
Miller Saw Trimmer Co	Standard saw-blade with screws	5 02	
Mitchell Bros	Freight on paper	58 01	
Morrison Co, J L	Wire, spools, clinchers, etc	48 05	
Muirhead, J	Binding and repairing, materials, etc	280 48	
McDowell, H P	Rubber stamps	8 00	
McGregor, A	Mounting and indexing maps	68 40	
McKeown, A	Eyelets	35	
McTavish Bros	Brokerage	30 75	
Nanaimo Daily Herald	Printing ballots for Mines Department	2 50	
Natl Drug & Chem Co	Alcohol, tar-soap, glycerine, etc	35 80	
News Pub Co, Nelson	Rebinding, mounting maps	161 00	
News-Advertiser	Binding	39 25	
Norman Hall Co	Calf-skins, cow-hide, padding composition, etc	368 86	
Peden Bros	25 lb. shot	3 75	
Powell & Sons, G	Hardware, waste, etc	18 55	
Prior & Co, Ltd, E G	Emery-cloth, leather belting, lacing, oilers, etc	17 83	
Ransom, A C	Wonder Black, Klean Cut varnish	32 05	
Revercomb Auto Sup Co	45 gallons kerosene-oil	8 55	
Richardson & Co, G A	Linen thread	11 10	
Roedde, Ltd, G A	Binding, mounting maps, repairs, etc	310 80	
Russell, C C	Braid	25 92	
Russell-Reed Co	Ink and dryers	27 00	
Semi-Weekly Chronicle	Printing ballots for Mines Department	5 00	
Smith, Davidson & Wright	Paper	6,655 39	
Spencer, Ltd, D	Ribbon, roller towels, cotton-batting	36 00	
Spicer Bros, Ltd	Paper	462 57	
Standard Steam Laundry	Laundry	41 79	
Staneland Co, Ltd	Benzene and spirits of turpentine	38 50	
Sun Job Presses	Binding	38 75	
Sweeney-McConnell, Ltd	Rubber stamp	1 25	
Tamm & Co	Cowhide, inks, etc	147 31	
Tellier, Rothwell & Co	Glue	30 80	
Times P'tg & Pub Co, Ld	Copper half-tones	179 60	
Townsley, J	Brass shield, pulleys, welding, and repairs	49 33	
Turner, Beeton & Co	Sheeting, butter-cloth, duck	964 30	
Ullman Co, S	Ink	40 00	
Union Meat Co	Glue	33 00	
Vernon News Printing & Pub Co	Binding Voters' Lists	1 40	
Victoria Furnitnre Co	Cheese-cloth, cotton wipers	290 58	
Victoria Gas Co	Gas	307 21	
Waites & Knapton	Locks	6 50	
West Disinfecting Co	Odourless soap	107 00	
Wickett & Craig	Leather	117 89	
Williams, J D	Hauling	2 00	
Windsor Grocery Co	Gelatine, lye, soap, vinegar, etc	25 00	
	Total, $40,316.36		52,000 31
	Vote No. 33.—Provincial Home, Kamloops.		
	MAINTENANCE (INCLUDING TRANSPORT).		
Ardel, M	Making up sheets and pillow-cases, services as Nurse, 17 days @ $70	44 52	
Ardinni Bros	Boot and shoe repairs	72 00	
Baird, J	(Paid) Transportation and meals	6 35	
Barnhart, P A	1 ton turnips	20 00	
Bishop, T	Services as Cook, 2 months 6 days @ $35	84 00	
Blair, W E	(Paid) Horse-hire	2 00	
B C Telephone Co, Ltd	Telephone service	36 00	
Brown Bros	Raspberry and currant bushes	8 50	
Burns & Co, Ltd, P	Meat	588 02	
Burris, J S, M D	Medical attendance, 13 months @ $33.33	433 33	
C P Railway Co	Transportation	134 15	
City of Kamloops	Electric light, $617.50; water, $199.50	817 00	
Clements, J H	Prescriptions and drugs	283 58	
Conners, J R	Milch cow	110 00	
Curley, G A	(Paid) Transportation, rooms, and meals	11 70	
Dalgleish, N S	Seeds, crockery, hardware, cutlery, etc	178 03	
Dominion Express Co	Expressage on cow from Colony Farm	25 60	
Ellis & Co, W J	Plates for kitchen-range	14 02	
E & N Railway Co	Transportation	16 75	
	Carried forward	.....	371,081 41

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward	.....	371,081 41
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	***Vote No. 33.—Provincial Home, Kamloops.*—Concluded.**		
	MAINTENANCE (INCLUDING TRANSPORT).—*Concluded.*		
Felix (Indian)	Hay	16 65	
Gilbert, C W	(Paid) Meals	1 00	
Gordon, J	Hauling ice 4 days @ $2.50	10 00	
Gordon, J L	Mattresses, shades, cork lino., oilcloth, etc., $162.48; burial of 21 inmates @ $25	687 48	
Hibben, F	(Paid) Transportation and meals	8 80	
Hoskin, E A	Cartage	50	
Hudson's Bay Co	Clothing, boots, crockery, etc	92 71	
Hunt, J	Cash advanced for subsistence on way to Home	2 00	
Imperial Oil Co	Floor-oil and oiler	4 98	
Johnston & Co	Lime, fireclay, brick, and labour	20 25	
Kamloops Sash & Door Factory	Glass	2 00	
Kerr, W J	Repairs to eyeglasses, clock, etc	7 50	
Lund, H	Coal and wood	399 12	
Markland, F D	(Paid) Transportation	20 40	
Marlatt & Mackenzie	Hardware, paint, glass, oil, etc	28 65	
Marsh Bros	Electrical supplies	17 85	
Martin & Robertson	Cleanser	31 50	
Massie, A	Services as Engineer 20 days @ $65	42 26	
Michell, J R	Hay	58 01	
Milton, J	Feed	220 93	
Minerd, P	Transportation to Renfrew, Ont	68 40	
Model Bakery	Bread and hot cross buns	1,864 64	
Mustart, A D I	(Paid) Transportation, beds, meals, etc	42 10	
McKinnon H'tg & Plumbing Co	Repairing pipes, boiler, clearing sewer, etc	182 76	
Northern Transfer Co	Coal	3,469 69	
Owens Bros	Meat and fish	527 53	
Owens Meat Market	do	616 77	
Owens & Palmer	do	1,891 00	
Patten, R W	Transportation	4 35	
Paxton, J D, V S	Professional services	22 00	
Prior & Co, Ltd, E G	Hardware, paint, oil, agricultural furnace, etc	162 28	
Postmaster, Kamloops	Postage-stamps, $10; rent of post-office box, $6	16 00	
Ridge, W	Meals, expressage	4 00	
Rocky Mountain Livery & Stage Line, Ltd	Auto-hire	1 50	
Simpson, J L	Transportation and meals	30 75	
Smith, T (Chief Const, Vancouver)	(Paid) "	47 00	
Summers & Frost	Boots, clothing, sheeting, towels, etc	1,217 80	
Tedder Lumber Co, J E	Lumber	10 20	
Thorne, E	Transportation and meals	7 30	
Tomma, S	Hay	10 15	
Vanbuskirk, J M	Transportation	1 00	
Wade, M S, M D	Medical attendance	5 00	
Welsby, G H	Transportation and meals	27 90	
Williams, G	do	6 00	
Wilson Grocery Co	Groceries and provisions	6,353 15	
Woodley, E	Auto-hire	50	
			21,147 31
	Vote No. 34.—Provincial Museum.		
	Maintenance.		
	PURCHASE OF NATURAL HISTORY SPECIMENS, INCIDENTAL AND TRAVELLING EXPENSES.		
Aksidar, H	Collection of Indian material, 8 pieces	15 00	
American Express Co	Expressage	10 04	
Anderson, R M	Expenses *re* collecting trips	197 75	
Anderson, W B	Services protecting bird-life and collecting data on Bare Island, 1½ months @ $100; expenses, $17.10	167 10	
B C Telephone Co, Ltd	Long-distance calls	60	
Blackmore, E H	Services rendered on entomological collection 16 days @ $3	48 00	
Byers, W D	Trips to and from Bare Island, transferring supplies, mail, etc	33 00	
Calwell, H	Cartage and prepaid freight	11 00	
Campbell, D E	Vaseline and carbon bisulphur	4 70	
C P R Telegraph Co	Telegrams	6 15	
Charles, M A	Indian hat and mat	15 00	
Clarke & Stuart Co, Ltd	3 pairs botanical wire-presses	4 22	
Colonist P & P Co, Ltd	Half-tones and roller composition	99 87	
Cooke, E A	General assistance 12 months @ $75	900 00	
Denker, J P	1 copy Bacon & Co's. B.C. survey plan	6 50	
Dominion Express Co	Expressage	56 41	
Egerton, M	Tooth of Desmostylus, found in the Sooke region	5 00	
Evans, Coleman & Evans	Plaster, sacks, etc	36 00	
	Carried forward	.....	392,228 72

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	392,228 72
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Continued.*		
	Vote No. 34.—Provincial Museum.—Concluded.		
	Maintenance.—Concluded.		
	PURCHASE OF NATURAL HISTORY SPECIMENS, INCIDENTAL AND TRAVELLING EXPENSES.—*Concluded.*		
Fleming, E	Negatives and printing	45 15	
Fraser & Co, Ltd, W S	Galvanized netting, iron	8 66	
Keary, L	Services *re* Mr. McLean's trip to Lillooet	60 00	
Kermode, F	Travelling expenses	126 60	
Lindley, W	Glass eyes	47 35	
Martin, Hon. Mr Justice	1 Indian "Chilkat" blanket	50 00	
Maynard, A H	Photographic supplies, prints, and negatives	18 80	
Melrose Co, Ltd	Glass, brushes, whiting, etc	13 09	
Munro, J A	Services in the field, 6 months 11 days @ $100; expenses, $140.55	777 21	
McTavish Bros	Brokerage and express charges	1 90	
Natl Drug & Chem Co, Ltd	50 lb. flaked napthaline	9 00	
Newcombe, C F, M D	Trip to Lillooet to examine anthropological specimens, freight, etc	31 10	
Peden Bros	Collecting-basket, gun-case, rifle-sight, etc	11 75	
Pichon & Lenfesty	Sewing-twine	30	
Pither & Leiser, Ltd	Alcohol	97 65	
Powell & Sons, G	Hardware, insect-pins, traps, heavy copper tank, etc	203 10	
Scott & Peden	Sacks	50	
Shrapnel, E S	Services, painting casts of fishes, etc	100 00	
Sommer & Sons, Ltd	Banana-oil, paint, etc	1 70	
Spencer, Ltd, D	Pins, cheese-cloth	13 65	
Swannell, F C	Anthropological material from interior of B.C.	100 00	
Victoria Book & Stat Co	Books, etc	8 25	
Waites & Knapton	Yale key and cutting	50	
Williams, T J	Drugs, brushes, etc	17 85	
Windsor Grocery Co	Salt, lime, lye	2 25	
Young, C W	Making microscopic drawing and painting of species of fly known as *Rhachogustu Kermodei*, new to science	10 00	
			3,372 70
	Vote No. 35.—Industrial School for Boys.		
	MAINTENANCE.		
Alcock, Downing & Wright	Toilet fixtures	3 12	
Allen, J C	Fee paid for engineer's temporary certificate, $2.50; rail fares, $1	3 50	
Baxter & Wright	Mattresses, chairs, lino, etc	160 00	
Bowes Music House	Musical instruments and supplies	285 38	
Boyle, J B	Medicines, etc	21 87	
Brackman-Ker Milling Co	Hay, oats, bran, etc	2,499 89	
B C Electric Ry Co, Ltd	Electric light, $170.64; car tickets, $70	240 64	
B C Telephone Co, Ltd	Exchange service, $72; long-distance calls, $5.60	77 60	
Buscombe & Co, Ltd, F	1 dozen jars	65	
Cameron, J P	Uniform-cloth, dry-goods, etc	278 60	
C P Railway Co	Telegrams, $3.56; transportation, $12.75	16 31	
Carswell, J	Cartage on pigs	3 00	
Clarke, Stuart & Co, Ltd	Stationery	1 75	
Corpn of Point Grey	Water	73 54	
Edwards Bros	Films, developing and printing	9 92	
Electrical Maintence Co	Lamps, plugs, cords, etc	48 23	
Ferris, M E	Typewriting annual report	4 50	
Gault Bros, Ltd	Denim, butter-cloth, underclothes, etc	317 17	
Grassie, W H	Repairing and cleaning watchman's clock	2 00	
Gurney Foundry Co, Ltd	Bars, bolts, dampers, etc	21 71	
Hunter, D	Clothing, etc	1,507 96	
Jordan, G, M D	Medical attendance	15 00	
Kitsilano Market Co, Ltd	Meat and fish	1,195 08	
Lee, W T	Blacksmithing	38 95	
Lewis & Sills, Ltd	Hardware, crockery, etc	524 64	
Millar & Coe	Tureen and ladle	4 50	
Mills & McAdam	Groceries and provisions	2,459 52	
McArthur, F	Painting, kalsomining, papering, etc	227 00	
McLennan, McFeely Co	Centre for range	1 24	
McPhillips, F X, M D	Medical services	992 50	
Owl Drug Co., Ltd	Drugs and prescriptions	25 05	
Pilkey, C C	Sharpening and repairing lawn-mowers	1 50	
Postmaster, Vancouver	Postage-stamps, $90; rent of post-office box, $8	98 00	
Pullen, M F	(Paid) Supplies for Christmas concert	6 70	
Ritchie Bros & Co	Seeds and plants	22 30	
Singer Sewing Mach Co	Tailor's machine, needles, thread-lever, etc	21 10	
Spencer, Ltd, D	Crockery	33 84	
Storey & Campbell	Team-harness, leather, and shoe-repairing materials	667 16	
Superior Plating & Manufacturing Co	Replating and repairing musical instruments	15 15	
Taylor, H	Repairing and tuning school organ	10 00	
	Carried forward	.....	395,601 42

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	395,601 42
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).—*Concluded.*		
	Vote No. 35.—Industrial School for Boys.—Concluded.		
	MAINTENANCE.—*Concluded.*		
Telford, Dr G	Dental services	7 00	
Terminal Plumbing & Heating Co	Repairs to baths, toilets, and plumbing material	39 35	
Tisdalls, Ltd	Baseballs, footballs, bladders, etc	40 60	
Weeks & Co, Ltd	Sheet-packing, steam-vents, washers, etc	17 40	
Western Coal Co, Ltd	Coal	389 03	
Wood, M A	7 dozen hymn-books	10 50	
Woodward, A J	Garden seeds	5 10	
			12,445 55
	Vote No. 36.—Industrial School for Girls.		
	MAINTENANCE (INCLUDING TEMPORARY ASSISTANCE).		
Babcock, J	Auto-hire	1 50	
B C Electric Ry Co, Ltd	Car tickets, $15; electric light, $127.06	142 06	
B C Telephone Co, Ltd	Exchange service, $72; long-distance calls, $5.25	77 25	
Burnaby Dairy & Ice Co	Milk, $138.16; ice, $7	145 16	
Carter, W M, M D	Medical attendance	12 00	
C P Railway Co	Telegrams, $2.20; tourist sleeper to Winnipeg, $4.10	6 30	
Christenson, B	Boot and shoe repairs	17 67	
City Chimney Sweep'g Co	Cleaning furnace smoke-stack, pipes, etc	17 50	
Collier, T H	(Paid) Auto-hire and car fares *re* runaway girls	1 70	
Dukes Grocery	Groceries and provisions	1,372 89	
Heaps & Co, E H	Manure, $60; ploughing, $10; lumber, $16.25	86 25	
Hudgin, C	Hauling wood 1½ days @ $7	10 50	
Kirby, J	Auto-hire	1 25	
Lewis Sills, Ltd	Hand-cart, hose, floor-wax, hardware, etc	199 33	
London Grocery Co, Ltd	Brooms	4 08	
Margeson, K A	Drugs, etc	76 27	
Mathieson, A D	Meat and fish	456 62	
Maxwell, E D L	Repairing organ	2 50	
Mercier, H	Filing crosscut saw	65	
Murray Bros	Hose-bibb, repairs to grate-bar, and welding	4 00	
Office Specialty Mfg Co	Filing-cabinet	46 90	
Postmaster, Vancouver	Postage-stamps	25 00	
Rennie Co, Ltd	Seed-drill, seeds, bulbs	32 26	
Singer Sewing Mach Co	Sewing-machine and repairs	36 50	
Smith Electric Co	Bell	1 50	
S Vancouver Milk Co	Milk	65 63	
Spencer, Ltd, D	Buffet, clothing, boots and shoes, dry-goods, etc	535 29	
Tisdalls, Ltd	Croquet set	3 25	
Trousdale, F H, M D	Medical attendance	84 50	
Vane City Water Works	Water	42 00	
Western Coal Co, Ltd	Coal	976 13	
			4,484 44
	VI.—HOSPITALS AND CHARITIES.		412,531 41
	Vote No. 37.—Grants to Hospitals.		
General Hospital	Grant *per capita* to Hospital, Nanaimo	6,036 40	
Royal Jubilee Hospital	do Victoria	18,793 65	
B C Anti-Tuberculosis Soc	do Vancouver to King Edward Sanatorium, Kamloops	30,957 30	
Royal Columbn Hospital	do New Westminster, Hospital	14,210 40	
General "	do Vancouver	83,910 65	
St Luke's "	do Powell River	2,346 45	
Nicola Valley Gen "	do Merritt	3,253 40	
Mater Misericordiæ "	do Rossland	3,556 50	
Royal Inland "	do Kamloops	10,213 50	
Miners' Union "	do Sandon	1,926 60	
St Paul's "	do Vancouver	3,349 00	
Ashcroft Dist Gen "	do Ashcroft	739 00	
Kootenay Lake Gen "	do Nelson	6,896 10	
Sacred Heart "	do Greenwood	1,899 50	
General "	do Port Simpson	1,556 50	
West Coast General "	do Port Alberni	2,003 80	
Ymir General "	do Ymir	1,823 90	
North Vancouver "	do North Vancouver	1,165 90	
St Eugene "	do Cranbrook	7,436 55	
Fernie "	do Fernie	4,298 50	
Lillooet District "	do Lillooet	1,152 60	
Victorian "	do Kaslo	1,800 80	
General "	do Grand Forks	2,772 15	
	Carried forward	.....	.....

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		
	VI.—HOSPITALS AND CHARITIES.—*Continued.*		
	***Vote No. 37.—Grants to Hospitals.*—Concluded.**		
Quesnel Hospital	Grant *per capita* to Hospital, Quesnel	674 00	
Summerland "	do Summerland	1,104 30	
Bella Coola "	do Bella Coola	592 00	
Jubilee "	do Vernon	5,490 00	
Chilliwack "	do Chilliwack	2,179 25	
St Joseph's "	do Comox	3,284 75	
Chemainus "	do Chemainus	1,438 20	
Campbell River Gen "	do Campbell River	1,522 90	
Slocan "	do New Denver	1,445 20	
Windermere Dist "	do Invermere	603 00	
Royal Cariboo "	do Barkerville	2,000 00	
Queen Victoria "	do Revelstoke	5,022 00	
Chase "	do Chase	410 00	
Ladysmith General "	do Ladysmith	2,690 75	
Penticton "	do Penticton	1,385 00	
Golden "	do Golden	1,814 10	
Michel "	do Michel	1,226 80	
Nakusp "	do Nakusp	328 00	
St Michael's "	do Rock Bay	1,497 70	
St George's "	do Alert Bay	646 00	
Columbia "	do Vananda	500 00	
King's Daughters "	do Duncan	2,412 45	
Atlin General "	do Atlin	940 00	
Armstrong Nursg Home	do Armstrong	670 00	
Chilcotin Gen'l Hospital	do Alexis Creek	184 00	
General "	do Hedley	814 00	
Cumberland Gen "	do Cumberland	4,561 00	
Bella Coola, Riv Inlet "	do River's Inlet	1,193 90	
Salmon Arm Gen "	do Salmon Arm	1,358 40	
Hazelton "	do Hazelton	3,266 40	
Trail "	do Trail	3,291 90	
Kelowna "	do Kelowna	1,733 60	
Lady Minto "	do Ganges	500 00	
General "	do Anyox	2,495 50	
General "	do Phoenix	1,550 20	
General "	do Princeton	1,032 90	
St Bartholomew's "	do Lytton	955 00	
Shulus "	do Shulus	82 00	
General "	do Prince Rupert	5,340 50	
Port Essington Gen "	do Port Essington	327 70	
Corbin "	do Corbin	323 00	
			280,985 55
	Vote No. 38.—Grants to Refuge Homes, Aid Societies, etc. (subject to Government Inspection).		
St Joseph's Hospital	Grant in aid, Victoria	1,600 00	
St Andrew's "	do Atlin	1,000 00	
Loyal True Blue Orphanage	do Jubilee	1,000 00	
St Ann's Boys' School	do Quamichan	1,000 00	
St Ann's Orphanage and Convent	do Nanaimo	750 00	
Providence Orphanage	do New Westminster	1,700 00	
Children's Aid Society	do Vancouver	2,750 00	
Monastery of Our Lady of Charity	do do	600 00	
Alexandra Orphanage	do do	1,700 00	
Y W C A	do do	1,000 00	
Women's Christian Temperance Union	do Victoria	1,750 00	
Salvation Army Rescue and Maternity Home	do do	600 00	
St Mary's Hospital	do New Westminster	500 00	
Catholic Children's Aid Society	do Vancouver	1,000 00	
			16,950 00
	Votes Nos. 39 to 67.—Grant in aid of Resident Physicians.		
Columbia Coast Mission.	Vote No. 39.—Grant for 12 months, Alert Bay	500 00	
Harrison, E H, M D	do 41.— " 12 " Atlin	500 00	
Sutherland, E M, "	do 42.— " 12 " Bella Coola	300 00	
Shaw, W F, "	do 43.— " 12 " Campbell River	300 00	
Scatchard, W, "	do 44.— " 12 " Chase	300 00	
Wright, J H, "	do 45.— " 12 " Chilcotin	300 00	
Dixson, D S "	do 46.— " 12 " Clayoquot	300 00	
Petersky, S, "	do 47.— " 12 " Clinton	300 00	
	Carried forward		297,935 55

TO WHOM PAID	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		297,935 55
	VI.—HOSPITALS AND CHARITIES.—*Continued.*		
	***Votes Nos. 39 to 67.—In aid of Resident Physicians.*—Concluded.**		
Ross-Fraser, A, M D	Vote No. 49.—Grant for 12 months, Gulf Islands	600 00	
Inglis, F, " ..	do 50.— " 12 " Gibson Landing and Squamish	300 00	
Ardagh, V E R, " ..	do 51.— " 12 " Kitwanga	300 00	
Lawson, E H, " ..	do 52.— " 4 " Masset	166 66	
McPherson, J S, " ..	do 53.— " 5 " Nakusp	125 00	
McLean, E H S, " ..	do 53.— " 7 " "	175 00	
McDonald, D J, " ..	do 54.— " 12 " Nobles	300 00	
Feare, W K, " ..	do 55.— " 12 " 150-Mile House	200 00	
Crompton, K E, " ..	do 56.— " 5 " Parksville	125 00	
Beech, L, " ..	do 56.— " 6½ " " "	162 50	
Large, R W, " ..	do 57.— " 12 " Port Simpson	300 00	
Barker, G R, " ..	do 60.— " 12 " Quesnel	300 00	
Columbia Coast Mission	do 61.— " 12 " Rock Bay	300 00	
Columbia Coast Mission	do 65.— " 12 " Vananda	500 00	
Maclean, C, M D	do 66.— " 7 " West Coast (Ucluelet)	233 33	
Turnor, P W	do 67.— " 9 " Windermere District	225 00	
			7,112 49
	Vote No. 68.—Contingencies.		
Meadows, H, M D	Grant for 12 months as Resident Physician; Denman and Hornby Islands	300 00	
Kelso, J E H, M D	do 12 " " " Edgewood and District	300 00	
Stone, W R, M D	do 12 " " " Vanderhoof	300 00	
Fraser, W	Safeguarding material at Stewart General Hospital, 5 days @ $5; lumber, nails, and padlock, $5	30 00	
Carr & Hoefer	Horse-hire *re* investigation *re* Paull, Columbia Gardens	5 00	
Norris, L	Travelling expenses, Vernon to Armstrong, to visit Hospital as Government Director	1 86	
			936 86
	Vote No. 69.—Children's Protection Act.		
Barber, C G	(Paid) Expenses *re* Ward investigation	10 50	
Bourne, J	Transportation, meals, beds, etc., *re* Isnardy children	68 90	
Catholic Children's Aid Society, Vancouver	Maintenance of children, $5,859.62; transportation, meals, etc., $291.50	6,151 12	
Children's Aid Soc of Van	do "	4,850 51	
Gorman, M	Rail fare, escorting children	1 50	
Hamilton, Mrs	Board and room *re* Isnardy, 7 days @ $1.50	10 50	
Inkman, F E	Auto-hire *re* Ward investigation	9 00	
Inland Express Co	Transportation	26 50	
McGregor, A E	Expenses *re* Ward investigation	8 35	
Ridley Home, P Rupert	Board and clothing *re* F. C. Wallace	143 45	
South, C J (Supt Children's Aid Soc, Van)	Transportation, meals, etc.	249 37	
Victoria Child's Aid Soc	Care of child Bell	33 00	
			11,562 70
	Vote No. 70.—In aid of Destitute Poor and Sick.		
Adolph Trading Co	Groceries and provisions	154 90	
Allison Drug & Book Co	Medicine	1 25	
Anderson, J A	Milk	85	
Armstrong's Dept Store	Groceries and provisions	8 76	
Ashcroft Meat Market	Meat	4 10	
Asseltine, B, M D	Medical attendance	10 00	
Barber, C G	(Paid) Transportation, meals, beds, etc.	29 45	
Bate, T E	Files *re* relief-work	1 00	
Baxter, R W	Auto-hire	3 00	
Baynes, E	Grant in aid	50 00	
Beattie, Murphy Co, Ltd	Medicines	3 50	
Bennett, F	Transportation, meals, etc., *re* Brandon case	57 75	
Bickle, J	Clothing	12 20	
Birchall, K F	(Paid) Transportation, meals and rooms *re* Stratford case	9 35	
Blackstock Bros	Livery-hire	2 50	
Blair, W E	(Paid) Groceries	2 00	
Blue, G S	(Paid) Transportation	3 65	
Bontez, L	Eggs	5 60	
Booth, G	Transportation, meals, etc., *re* Brandon case	57 75	
Bourne, J	(Paid) Transportation	1 50	
Bowie, J	Groceries and provisions	5 20	
Boyd, M	Transportation, meals, etc.	13 00	
Bradley & Son, R P	Groceries and provisions	8 05	
Brewster, T	Milk	1 75	
Brown, Mr and Mrs	Grant in aid 12 months @ $21	252 00	
Brown & Co	Shoes	2 00	
Bryant, M	Beds and meals	4 00	
	Carried forward		317,547 60

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		317,547 60
	VI.—HOSPITALS AND CHARITIES.—*Continued.*		
	Vote No. 70.—In aid of Destitute Poor and Sick.—Continued.		
Buckless, F C	Livery-hire	2 00	
Burns, J	Transportation, meals, beds	21 70	
Burns & Co, P, Nanaimo	Meat	5 00	
Burns & Co, P, Pr George	do	19 90	
Bylanders, P M	Grant in aid 12 months @ $15	180 00	
Cairns, L D, M D	Meals and beds	3 50	
Cameron, C	Transportation and meals	81 70	
Campbell, Mrs A	Grant in aid 12 month @ $20	240 00	
Campbell Bros	Groceries and provisions	720 15	
C P Railway Co	Transportation	229 20	
Cariboo Trading Co	Groceries and provisions	70 80	
Carr, J E	Auto-hire	2 50	
Carr, P	(Paid) Meals	1 00	
Central City Mission, Ld	Beds	6 75	
Chandler, G H	Wagon to assist Mallory and family to return to Oklahoma	30 00	
City Dairy, Prince George	Milk and eggs	26 70	
City Grocery, Trail	Groceries and provisions	14 00	
City of Chilliwack	Maintenance and room for J R Solway	52 60	
City Livery, Cranbrook	Livery-hire	3 00	
City of Nanaimo	Water	10 00	
Clements, J H	Adhesive plaster	85	
Clinton Hotel	Whisky	2 00	
Clinton Trading Co	Groceries and provisions	1 95	
Condon, M J	(Paid) Horse-hire	4 00	
Cook, W	Grant in aid 12 months @ $12	144 00	
Cowan Supply Co	Groceries and provisions	32 60	
Cowichan Merchants, Ld	do	80 00	
Cranbrook Trading Co	do	182 90	
Crosina, L J	do	14 75	
Curley, J A	(Paid) Transportation and meals	2 35	
Curtis, G F, M D	Examination of J. Hannacher	5 00	
Davidson, A	Coal and wood	12 90	
Davis & Co, J	Groceries and provisions	134 75	
Dawley, W T	do	13 85	
Deighton, A G	do	90 15	
Dewdney, W R	(Paid) Transportation	85	
Docksteader, W H	(Paid) Auto-hire	8 00	
Dodd, J	Grant in aid 12 months @ $15	180 00	
Dogherty	Board	24 00	
Duncan Garage	Auto-hire	7 00	
Elliott, R, M D	Medical attendance and medicine	25 00	
Enright, E	(Paid) Meals	1 50	
Esterbrooks, E	Meals	58 75	
E & N Railway Co	Transportation	2 95	
Evans, C F	(Paid) do	13 65	
Ewert, C, M D	Medical attendance, board and care	125 00	
Fenwick, A B	Livery-hire	6 00	
Fernie Livery Co	Board and rooms	25 75	
Field, A	Meals and beds	1 45	
Field Trading Co, Ltd	Groceries and provisions	14 85	
Finlayson & Co	do	68 85	
Fink Mercantile Co, Ltd	Clothing, shoes, etc	17 75	
Fleming, R	Groceries and provisions	4 75	
Fletcher, F H	Grant in aid 12 months @ $15	180 00	
Fort George Drug Co	Medicines, etc	22 60	
Fort Steele Co-op Stores	Groceries and provisions	270 86	
Fort Steele Garage	Transportation	16 00	
Fraser, R	Groceries and provisions	55 79	
Fraser & Bishop	do	11 25	
Fraser & Co, Ltd, J A	do	107 95	
Frost, A C, M D	Medical attendance	75 00	
Futa, T K	Groceries and provisions	12 00	
Gardner, H J	do	135 79	
Gibson, J T S	(Paid) Transportation, meals	5 45	
Gillis, A L	Grant in aid, 4½ months @ $20; clothing and boots, $13.80	103 80	
Good, J A	Wood	6 00	
Grand CenHotel, Ashcroft	Board and rooms	8 00	
G T P Railway Co	Transportation	46 40	
Grant, J F, M D	Examination of R. Salstrom	5 00	
Green & MacKinnon, MDs	Medical attendance	30 00	
Greenwood, M J	Groceries and provisions	104 90	
Greenwood, W	(Paid) Transportation and meals	7 70	
Greenwood Grocery	Groceries and provisions	21 38	
Grierson, S	Transportation	2 00	
Grinder, G	Groceries and provisions	105 15	
Haikala, Mrs	Grant in aid 1 month @ $50; 7 months @ $30	260 00	
Hance, P	(Paid) Meals and beds	10 50	
Hannay, J	(Paid) Transportation and meals	6 05	
Hansen, K	Groceries and provisions *re* Botel family	15 00	
	Carried forward		317,547 60

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward		317,547 60
	VI.—HOSPITALS AND CHARITIES.—*Continued.*		
	Vote No. 70.—In aid of Destitute Poor and Sick.—Continued.		
Harding, H J	(Paid) Transportation, meals, etc	8 70	
Harper, A J	Maintenance, G. Isaac, Barkerville 7 months @ $15	105 00	
Harper, F	Groceries and provisions	226 00	
Hartley, G W	Wood	2 75	
Hatch, C J	(Paid) Transportation and meals	4 90	
Harvey-Bailey, Ltd	Groceries and provisions	71 24	
Haydock, W	Grant for relief	290 00	
Hazelton Hospital	Special grant *re* service to J. May 12 months @ $15	180 00	
Hazelton Hotel	Board and rooms	25 50	
Helm Restaurant	Meals	1 00	
Helmsing, H F	(Paid) Transportation, rooms and meals	39 90	
Henderson, A, M D	Examination of A. McDonald	5 00	
Henderson, G B, M D	Medical attendance	35 00	
Hendrikson, F	Cash for subsistence	2 00	
Hibben, F	Launch-hire	3 00	
Highsted, J	Groceries and provisions	39 35	
Hill, E	Care of Rawson child	35 50	
Hodgeman, T	Transportation	109 50	
Hodgins, Ltd, J B	Medicine	90	
Hoggan, W	Groceries and provisions	114 35	
Home for A and I Women	Grant in aid, sundry persons	746 00	
Hood's, Ltd	Groceries and provisions	116 20	
Hoole, E W	do shoes, clothing	35 90	
Holmes, O	do	108 00	
Hoops, S E M, M D	Medical attendance	30 00	
Hoskins, S H	(Paid) Transportation, meals	32 80	
Howard, M	Grant in aid 3 months @ $12	36 00	
Hudson's Bay Co	Groceries and provisions, rubbers and hosery	13 55	
Hume & Co, Ltd, C B	do	50 67	
Hunt, J	Cash for subsistence, awaiting admission to Home, Kamloops	15 00	
Huston, Mrs W	Meals, beds, lights, etc	85 25	
Huston, W O	Hay and oats	22 14	
Inland Express Co, Ltd	Transportation, meals, and berths *re* Precourt and family, Soda Creek to Montreal, etc	304 70	
Irving & Co, J A	Groceries and provisions	38 75	
Jackson, A	do	25 40	
Jackson, F H	do	230 57	
James, G A	Medicine	75	
Jennings, S	Room and meals	1 25	
Jepson Bros	Stationery	3 65	
Johnston, Mrs E	Grant in aid 12 months @ $25	300 00	
Johnston, J F	Transportation and meals	2 05	
Johnston Bros	Transportation	12 00	
Jordan, W	Grant in aid 12 months @ $10	120 00	
Kauvak, Mrs	Rent of shack	3 00	
Keith, W D	Examination of J. Hannacher	5 00	
Kelly, J	Transportation and meals	36 40	
Kelly, W W	Groceries and provisions, wood	338 17	
Kennedy, Blair & Co	do	103 25	
Kerr, C	Transportation	10 00	
Kerr, A	Grant in aid 5 months @ $20	100 00	
Kier, W	Transportation and meals	1 25	
King, A	Grant in aid 5 months @ $20	100 00	
Kingston, C M, M D	Medical attendance	54 00	
Knarston, J S	Groceries and provisions	114 00	
Ladies' Guild, Cranbrook	Shoes and clothing	20 35	
Leask, Mrs J	Transportation and meals *re* Mrs. Boyter	46 95	
Leask & Son, J A	Groceries and provisions	175 00	
Leiser & Co, S	do	684 80	
Lewis, P	Transportation	10 00	
Lines, W H	(Paid) do and meals	6 30	
Little, G	Groceries and provisions	6 30	
Little & Atchison	do	260 90	
Little Davenport Café	Meals	11 95	
Loman, P G	Grant in aid 12 months @ $13	156 00	
Lyon, A M	Groceries and provisions	5 10	
Macdonald, L C	Grant for relief to sundry persons	420 00	
Macpherson, J S, M D	Medical attendance	60 00	
Mainwaring, H D	(Paid) Transportation	1 00	
Mandale, W P & R E	Meat	1 00	
Manning, Ltd, I R	Groceries and provisions	60 00	
Margatisch, E	Grant in aid 12 months @ $15	180 00	
Marion, T	do	3 15	
Markland, F D	(Paid) Transportation, meals, rooms, etc	44 10	
Marshall, S	(Paid) do do	30 00	
Martin, M	Grant in aid 12 months @ $15	180 00	
Mead, J	(Paid) Transportation, meals, rooms, etc	31 95	
Mellor, A	Groceries and provisions	120 00	
Michel Hotel	Meals	19 00	
	Carried forward		317,547 60

TO WHOM PAID.	FOR WHAT SERVICE.	cts.	$ cts.
	Brought forward		317,547 60
	VI.—HOSPITALS AND CHARITIES.—*Continued.*		
	Vote No. 70.—In aid of Destitute Poor and Sick.—Continued.		
Miskelly, M J	Groceries and provisions	67 95	
Moffat, H	do	7 15	
Moore, F R	Auto-hire	30 00	
Moore, J	Meals, $2; grant in aid, $46.67	48 67	
Morris, E	Grant in aid 12 months @ $25	300 00	
Morrison, K	Groceries and provisions	22 00	
Mustart, A D I	(Paid) Transportation, meals	4 60	
MacKenzie, R	Groceries and provisions	10 35	
MacKinder, V E	do	37 85	
MacLean, A D	(Paid) Transportation	2 45	
MacPhail, D A, M D	Medical attendance and expenses	27 00	
McCaffrey, D M, M D	do	43 00	
McCartney, S J	Groceries and provisions	144 00	
McCall, R	do	62 90	
McColl, G P	do	111 50	
McConnell, A	do	17 35	
McDonald, M J	do	9 25	
McInnes & Co, Ltd, N L	Groceries and provisions	63 40	
McIntosh, Jas	Services as Nurse, 5 days @ $3; beds and meals, $8.40	23 40	
McIntosh, J A	Auto-hire	1 50	
McLay, T R	Launch-hire and meals	21 00	
McLean, Hugh	Transportation and meals	11 60	
McLean, H F	Medicines	1 25	
McLean, M G	Groceries and provisions	9 50	
McMurphy, W	Grant in aid 12 months @ $40	480 00	
Nanaimo Elec Light Co	Electric-light arrears *re* W. Kerr	3 65	
Nechaco Drug Co	Medicines	4 60	
Neil & Cryderman	Livery-hire	1 00	
Nelson, J	Grant in aid 1 month @ $15; 5 months @ $20	115 00	
Newsome, J	Groceries and provisions	51 25	
Nicola Val'y Meat Market	Meat and fish	2 05	
Northern Transfer Co	Wood and coal	48 25	
Old Country Store, Nanaimo	Boots	15 25	
Ordano, D	Launch-hire	5 00	
Owens Bros	Meat	44 10	
Pacific Mills, Ltd	Hospital charges and attendance *re* W Cook	150 50	
Patten, R W	Transportation and meals	3 35	
Paulson Bros	Groceries and provisions	264 03	
Peck, L A	Auto-hire	1 50	
Perry Creek Merc Co	Groceries and provisions	45 00	
Petersky, S, M D	Medical attendance and expenses *re* McCoy	50 00	
Philpott's Café	Meals	50	
Pollard, T	Transportation and meals	32 00	
Porter, Mrs F	Grant in aid	25 00	
Pourier, A	do	10 00	
Powell River Co, Ltd	Groceries and provisions	10 70	
Pritchard, W P	do	47 75	
Queen's Hotel, Prince George	Rooms	3 50	
Rawlinson & Glaholm	Groceries and provisions	173 27	
Reliance Trading Co, Ltd	do	28 50	
Renner, J	(Paid) Meals	2 00	
Revelstoke Hosp'tl Soc'y	Special treatment *re* Coque	8 00	
Rhycard, W S, M D	Medical attendance	40 00	
Richmond, J	Groceries and provisions	12 75	
Ridley Home, Metlak'tla	Board of C. Wallace, boots, etc	69 95	
Ritchie, A	Groceries and provisions	10 60	
Ritchie, W L, M D	Medical attendance	35 00	
Rivers, W	Grant in aid 12 months @ $17.50	210 00	
Robson, W M	do 12 " " 15	180 00	
Rodgers, H W	do $25: rooms and meals, $8.75	33 75	
Rolston, D R	Groceries and provisions	13 52	
Roo, F	do	20 00	
Rosen, A	do	204 65	
Rosenburg, F L	do	14 75	
Ross, M C	Provisions and attendance *re* W. Haynes	83 60	
Ruddy & MacKay	Transportation	18 00	
Russell, J	do beds, meals	8 85	
Saldo, M	Board and rooms	16 00	
Sanson, G, M D	Medical attendance	50 00	
Schulz & Sinclair	Transportation	10 00	
Scott Bros	Groceries and provisions	15 25	
Shawnigan Lake Lbr Co	do	180 00	
Sibbald & Son	Coal	10 90	
Simister, M	Allowance for care and maintenance of infant Fox	30 00	
Smith, J M	Transportation	2 85	
Smith, T	(Paid) Meals	22 00	
Smith & Son, W T	Groceries and provisions	9 50	
	Carried forward		317,547 60

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	317,547 60
	VI.—HOSPITALS AND CHARITIES.—*Continued.*		
	Vote No. 70.—In aid of Destitute Poor and Sick.—Concluded.		
Smythe, C S	Night attendance, 17 nights @ $2	34 00	
Spencer, Ltd, D	Overalls and shirts	3 20	
Spiller, W	Transportation, meals	12 50	
Stainton, M	Groceries and provisions	15 00	
Stearman, F C	Medicine	1 00	
Stevens, J	Grant in aid, 2 months @ $15	30 00	
Stone, W R	Livery-hire	4 00	
Stout, E	Grant in aid, 12 months @ $15	180 00	
Stuart, A J, M D	Medical attendance	2 50	
Summers, T J	Groceries and provisions	10 00	
Sun Grocery Co	do	12 00	
Sutherland, J P	Wood	8 00	
Sutherland, J	Grant in aid, 12 months @ $10	120 00	
Tassin, J J	Groceries and provisions	7 10	
Taylor, G	do	95 00	
Taylor, J	do	136 54	
Throup, C	do	11 90	
Trenchard, C C	do	170 00	
Trites-Wood Co, Ltd	do	624 50	
Tuthill, G H, M D	Medical attendance	2 50	
Union Steamship Co, Ltd	Transportation	20 25	
Vancouver Mission	Beds	3 00	
Walker, Mrs E	Grant in aid, 12 months @ $30	360 00	
Walker & Kenny, M D's	Medical attendance	42 50	
Walsh, John	(Paid) Transportation	12 00	
Walsh, Jos	(Paid) Meals and bed	2 00	
Ward & Harris	Groceries and provisions	9 95	
Wardell, J	Transportation	25 00	
Warren, C A	Groceries and provisions	23 65	
Warrington, F H	Grant in aid	50 00	
Watson, J	Milk	5 00	
Welsby, G H	(Paid) Transportation, meals, etc., *re* Jones family, Michel to Liverpool	128 05	
Wesche, H	Groceries and provisions	40 36	
Westn Grocery Str, Natal	do	80 00	
White Lunch, Pr George	Meals	5 00	
Wightman, R, M D	Medical attendance	50 00	
Williams, J	Groceries and provisions	9 50	
Wilson Grocery Co	do	96 00	
Wilson & Co, T	do	132 00	
Windsor Grocery	do	5 30	
Wing, C S	Cleaning dwelling of A. Barlow, 2 days @ $3	6 00	
Wing, H A	(Paid) Livery-hire	5 00	
Wood, H N	(Paid) Transportation and meals	31 50	
Wood, J T	Groceries and provisions	37 71	
Woods, W	Auto-hire	8 00	
Wyatt, H R	Livery-hire	3 00	
Yan Kee	Laundry-work	5 00	
Yates, A	Transportation and meals	2 25	
Young, A	do	2 00	
Pay-list	Labour, Government relief-work in Comox District	350 50	
		19,423 07	
	Cr. Refund by J. Moyes *re* medical attendance paid to Dr. Ewart	30 00	
			19,393 07
	Vote No. 71.—Assistance towards Building Hospitals.		
Bella Coola Gen Hospital	Grant in aid	150 00	
Chemainus Gen "	do	200 00	
Chilcotin Gen "	do	50 00	
Colum Coast Mission	do	1,000 00	
Cumberland Gen Hosp'tl	do	1,000 00	
Hedley Gen "	do	750 00	
Jubilee Hospital, Vernon	do	1,000 00	
Kootenay Lake Gen Hosp	do	10,000 00	
Lady Minto, Ganges, "	do	200 00	
Miners' Union, Sandon, "	do	250 00	
Nakusp "	do	250 00	
Nanaimo Gen "	do	1,500 00	
Nicola Valley Gen "	do	2,000 00	
Penticton Gen "	do	3,250 00	
Prince Rupert Gen "	do	1,500 00	
Princeton Gen "	do	750 00	
Prov Royal Jub, Vic, "	do	2,000 00	
Royal Columbia, New Westminster, "	do	15,000 00	
Royal Inland, Kamloops, "	do	10,000 00	
	Carried forward	.....	336,940 67

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	336,940 67
	VI.—HOSPITALS AND CHARITIES.—*Concluded.*		
	Vote No. 71.—Assistance towards Building Hospitals.—Concluded.		
St Joseph's, Comox, Hosp	Grant in aid	500 00	
Slocan "	do	250 00	
Trail "	do	1,750 00	
Vancouver Gen "	do	95,000 00	
West Coast Gen "	do	750 00	
Windemere District Hospital Association	do	300 00	
Ymir Gen Hospital	do	250 00	
			149,650 00
			486,590 67
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).		
	Vote No. 72.—Summoning and Paying Witnesses.		
Sundry persons	Witness fees and expenses, Rex *v.* Jackson, Alberni	22 00	
do	do " Clark, Ashcroft	11 30	
do	do " Henry-Lulu, "	2 00	
do	do " Jones, "	38 25	
do	do " Wills, "	4 00	
do	do " Pine, Atlin	15 00	
do	do " Gillett, Clinton	192 00	
do	do " Jamieson, "	1,045 40	
do	do " Johnson, "	5 50	
do	do " Maturin, "	350 80	
do	do " McDonald, "	186 00	
do	do " Palo, "	23 00	
do	do " Parnell, "	10 00	
do	do " Sabo, "	172 00	
do	do " Dixon, Cranbrook	29 80	
do	do " Pattinson & Stevens, "	9 00	
do	do " Smith, "	12 00	
do	do " Bishop, Cumberland	4 00	
do	do " Bernardine, Fernie	6 00	
do	do " Bookout, "	109 20	
do	do " Dawson, "	12 40	
do	do " Don Frances, "	33 40	
do	do " Gian Singh, "	18 15	
do	do " Hajara Singh, "	27 00	
do	do " Jewan Singh, "	26 25	
do	do " Johnson, "	78 00	
do	do " Juras, "	24 00	
do	do " Leach, "	32 90	
do	do " Mayer, "	13 50	
do	do " Moffatt, "	3 00	
do	do " Moore, "	15 50	
do	do " Murdock, "	21 75	
do	do " McWilliams, "	5 00	
do	do " O'Reilly, "	12 50	
do	do " Reber, "	17 90	
do	do " Salters, "	33 60	
do	do " Thompson, "	13 75	
do	do " Zorratti, "	13 65	
do	do " Burman, Golden	35 00	
do	do " Isbester, "	4 50	
do	do " Maritano, "	1 75	
do	do " Sing Chung, "	12 05	
do	do " Hallett, Greenwood	32 00	
do	do " Huss, "	104 10	
do	do " Osborne, "	16 00	
do	do " Tomich, "	40 00	
do	do " Cunningham and Petzl, Hazelton	21 00	
do	do " Tommy Jack (Indian) "	8 00	
do	do " Williams and Green, "	11 90	
do	do " Buchanan and Perry, Kamloops	10 00	
do	do " Cameron and Gottfriedson, "	205 60	
do	do " Dickson, "	30 00	
do	do " Folino, "	9 00	
do	do " Gabriel, "	2 00	
do	do " Issac, "	53 00	
do	do " Jones, "	4 10	
do	do " Kershner, "	50 00	
do	do " Leighton, "	8 20	
do	do " Lulu, "	14 50	
do	do " Moore, "	82 10	
do	do " Perrault, "	102 95	
do	do " Stevens, Kaslo	2 35	
	Carried forward	.....	.....

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward		
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 72.—Summoning and Paying Witnesses. —Continued.		
Sundry persons	Witness fees and expenses, Rex *v.* Bishop, Nanaimo	53 29	
do	do " Frank, "	99 40	
do	do " Gardler, "	72 75	
do	do " Hannay, "	374 95	
do	do " Phillips, "	17 70	
do	do " Rigg, "	183 10	
do	do " Smith and Balmain, "	63 74	
do	do " Ton Hun, "	129 50	
do	do " Williams, "	64 05	
do	do " Wing Wah and Wing Hong, "	14 00	
do	do " Brown, Nelson	31 80	
do	do " Singh, "	4 00	
do	do " Tomich, "	12 70	
do	do " White, "	3 10	
do	do " Charles, New Westminster	15 15	
do	do " Christensen, "	19 60	
do	do " R. J. Clark, "	49 00	
do	do " R. S. Clark, "	31 70	
do	do " Combes, "	16 10	
do	do " Coulter, "	14 50	
do	do " Chung Li, "	126 45	
do	do " Ferrante, "	143 65	
do	do " Guiseppe, "	12 00	
do	do " Hansen, "	14 40	
do	do " Henshaw, "	34 50	
do	do " Herring, "	50 00	
do	do " Higgins, "	141 50	
do	do " Isher Singh, "	18 60	
do	do " Jones, "	305 35	
do	do " Joe Jack, "	25 00	
do	do " Levine, "	272 15	
do	do " Long, "	17 50	
do	do " Morris, "	30 40	
do	do " O'Connell, "	28 40	
do	do " Partab Singh, "	197 00	
do	do " Peterson, "	8 20	
do	do " Simonetto, "	12 20	
do	do " Soo Bin, "	23 95	
do	do " Thompson, "	16 00	
do	do " Vander, "	63 70	
do	do " Donovon, Princeton	8 00	
do	do " Fry, Prince Rupert	32 00	
do	do " Green and Williams, "	131 75	
do	do " Murray, "	14 00	
do	do " McKay, "	8 00	
do	do " Rocovitch, "	8 00	
do	do " Sazuki, "	36 00	
do	do " Walker, "	23 25	
do	do " Carson, Quesnel	2 50	
do	do " Cluskus Jerry, "	16 00	
do	do " Hnetiuk, Revelstoke	68 75	
do	do " Macintyre, "	183 10	
do	do " Cooney, South Fort George	22 00	
do	do " Coverdale, "	8 20	
do	do " Farnsworth, "	22 40	
do	do " Kalik, "	35 60	
do	do " Miljure, "	8 00	
do	do " McNamara, "	17 00	
do	do " Secinis, "	30 35	
do	do " Strykoski and Kalichuk, "	18 90	
do	do " Sykes, "	44 20	
do	do " Adair, Vancouver	16 00	
do	do " Alexander, "	20 00	
do	do " Almas, "	19 00	
do	do " Bampton, "	24 00	
do	do " Banks, "	8 00	
do	do " Bazzani, "	1 50	
do	do " Blackburn, "	38 60	
do	do " Blumberger, "	422 00	
do	do " A. Brown, "	40 00	
do	do " E. Brown, "	2 00	
do	do " H. Brown, "	7 10	
do	do " Bruce, "	20 00	
do	do " Campbell, "	24 00	
do	do " Carradice, "	20 00	
do	do " Carter, "	6 00	
do	do " Chan Wong Yuen, "	90 00	
do	do " Charley Chew, "	22 30	
	Carried forward		

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 72.—Summoning and Paying Witnesses.—Continued.		
Sundry persons	Witness fees and expenses, Rex *v.* Cima, Vancouver	94 15	
do	do " B. Clark, "	90 00	
do	do " R. S. Clark, "	7 75	
do	do " W. G. Clark, "	6 00	
do	do " Cole, "	220 00	
do	do " Connors and Lewing, "	24 00	
do	do " Cotsworth, "	16 35	
do	do " Cottingham, "	171 15	
do	do " Craib, "	64 00	
do	do " Crawford. "	203 60	
do	do " Dickinson, "	6 00	
do	do " Dory, "	18 00	
do	do " Draper, "	26 00	
do	do " Dunseath, "	48 00	
do	do " Ethans, "	14 00	
do	do " Fielding, "	76 00	
do	do " Gin Lum, "	24 70	
do	do " Gourlay, "	6 00	
do	do " Griffen, "	36 00	
do	do " Gulliver and Townsend, "	36 05	
do	do " Gunga Singh and Love Singh, Vancouver	6 00	
do	do " Harry, Vancouver	2 00	
do	do " Heberlee, "	30 00	
do	do " Henneid, "	15 30	
do	do " Henshaw, "	9 25	
do	do " Hill, "	14 50	
do	do " Hines, McDonald and Kemp, "	15 70	
do	do " Hoy Wing and Jones, "	64 80	
do	do " Jones, "	14 00	
do	do " Jowalla Singh, "	24 00	
do	do " Kay, "	12 00	
do	do " Kehar and Jaget Singh, "	82 00	
do	do " Kitawia *et al.*, "	12 00	
do	do " Lee Sing, "	12 00	
do	do " Lem Chong and Kan Choy, "	10 00	
do	do " Leman, "	31 00	
do	do " Lindsay, "	8 00	
do	do " Lum Hip, "	168 00	
do	do " Lynds and Hodgson, "	22 00	
do	do " Marsh, "	14 00	
do	do " Mastolo, "	16 00	
do	do " Matheson, "	26 00	
do	do " Miranda, "	21 50	
do	do " Moore, "	24 00	
do	do " Murray, "	6 00	
do	do " McKay, "	34 00	
do	do " McKenzie, "	52 00	
do	do " McMorran, Chaplain and Plowman, Van	13 00	
do	do " Num *et al.*, Vancouver	43 00	
do	do " Page, "	11 00	
do	do " Pearson, "	25 60	
do	do " Pettieniechi, "	22 00	
do	do " Redington, "	90 00	
do	do " Richards and Lambert, "	4 00	
do	do " Roberts, "	14 00	
do	do " Roderigueuz, "	58 30	
do	do " Ruggiero, "	161 00	
do	do " D. Ryan, "	24 55	
do	do " G. R. Ryan, "	4 00	
do	do " Sato and Matura, "	6 00	
do	do " Scribner *et al.*, "	65 45	
do	do " Skusky, "	4 00	
do	do " Smiljanich, "	75 35	
do	do " Sobiff, "	8 00	
do	do " Stockdale and Hardy, "	16 00	
do	do " Stubbings, "	6 00	
do	do " Sunstrum, "	73 00	
do	do " Tassus, "	20 00	
do	do " Tutino, "	91 40	
do	do " Walter and Lutner, "	8 00	
do	do " White, "	16 00	
do	do " G. Wilson, "	8 00	
do	do " H. A. Wilson, "	4 00	
do	do " F. D. H. Wilson, "	122 00	
do	do " Wisdom, "	8 00	
do	do " Young Que and Bill Young, "	9 00	
do	do " Fretwell, Vernon	56 10	
do	do " Jones, "	14 00	
	Carried forward		

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 72.—Summoning and Paying Witnesses.—Concluded.		
Sundry persons	Witness fees and expenses, Rex *v.* Pierre, Vernon	16 00	
do	do " Scherle, "	36 00	
do	do " Stehling, "	9 50	
do	do " Beach, Victoria	4 00	
do	do " Bradley, "	25 20	
do	do " Bura Singh, "	20 00	
do	do " Cathardi, "	24 00	
do	do " Cowgill and Thomas, "	58 00	
do	do " Drieszus, "	30 00	
do	do " Gosden, "	779 80	
do	do " Goucher, "	363 80	
do	do " Griffin, "	12 00	
do	do " Hall, "	8 00	
do	do " Ho Hee *et al.*, "	106 00	
do	do " Inda Singh, "	60 00	
do	do " Jaffe, "	4 00	
do	do " Malcolm, "	7 00	
do	do " Marwick, "	12 00	
do	do " Nesbitt, "	114 10	
do	do " Newman, "	6 00	
do	do " Nicholls, "	38 05	
do	do " Peatt, "	2 00	
do	do " Reid, "	36 00	
do	do " Robert, "	6 00	
do	do " Robertson, "	8 00	
do	do " Sake, "	6 00	
do	do " Slocum, "	20 00	
do	do " Whims, "	246 30	
do	do " Wong Kow, "	9 00	
do	do " Yee Bang Yang, "	40 00	
do	do " Yin Kee, "	15 70	
Hadler, W H	Expenses, serving subpœnas, Clinton	6 50	
Mansell, T A	do " "	2 00	
Petersky, S, M D	Expert medical evidence in sundry cases, Clinton	30 00	
Potter, R R	Serving subpœnas, Fernie	65	
Buckless, F C	do Greenwood	8 00	
Ruddy & McKay	Auto-hire Hazelton	6 00	
C P Railway Co	Transportation, Kamloops	14 30	
Barber, C G	Serving subpœnas, New Westminster	2 00	
Baxter, R W	Auto-hire, "	9 00	
Brett, E	do "	4 00	
Curley, J A	Serving subpœnas, etc., "	4 50	
Gilbert, C W	do "	7 05	
Hargitt, J A	Auto-hire, "	1 50	
Lines, W H	Serving subpœnas, "	13 00	
Ryall, E A	Auto-hire, "	17 00	
Stephenson, A T	Serving subpœnas, "	21 70	
Tupper, J A	do "	15 00	
Black, P	Meals for witnesses, Prince Rupert	42 00	
Brown, C W	Launch-hire, "	48 00	
Keeling, W	do "	17 75	
Garrison, W S	Livery-hire, Princeton	3 00	
Mansell, H H	Serving subpœnas, "	3 00	
Steamer "Chelohsin"	Transportation, Prince Rupert	18 20	
Palace Livery	Livery-hire, Revelstoke	9 00	
Renner, J	Serving subpœnas, "	1 50	
O'Halloran, F F	(Paid) Rail fare for witness, South Fort George	2 05	
Blair, W E	Serving subpœnas, Vancouver	7 50	
C P Railway Co	Transportation, "	32 30	
Gilbert, C W	Serving subpœnas "	90	
Huggins, H	do "	3 40	
Lines, W H	do "	3 00	
Markland, F D	do "	4 50	
Marshall, S	do "	14 75	
Matthews, R	(Paid) Notary fees, "	1 00	
North, S	Serving subpœnas, "	1 20	
Union S S Co of B C	Transportation, "	13 15	
Walker, W	Serving subpœnas, "	1 50	
Campbell, J I	Special ferry for witnesses, Vernon	5 00	
Urquhart, J C	Livery-hire, Vernon	6 50	
Campbell, C S	Hotel expenses *re* Hannay case at Nanaimo, Victoria	3 50	
C P Railway Co	Transportation, Victoria	7 05	
Moore, F R	Auto-hire, "	90 00	
Tait, A	Serving subpœnas, etc.	31 95	
			13,510 08
	Carried forward		13,510 08

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	13,510 08
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*			
	Vote No. 73.—Paying Grand and Petit Jurors.			
Jacobs, J	Meals for jury,	Clinton	7 00	
Pay-lists	Grand and Petit Jurors,	"	2,142 50	
Fernie Free Press	Printing jury lists,	Fernie	13 00	
Fernie Hotel	Meals for jury,	"	10 50	
Tuck, S P	Selector of juries (expenses)	"	60 90	
Pay-lists	Grand and Petit Jurors,	"	794 20	
Dinsmore, W	Selector of Jurors,	Grand Forks	5 00	
McCallum, J A	do	"	5 00	
McCallum, P T	do	"	5 00	
Spraggett, E	do	"	5 00	
Burns, M H	Auto-hire for jurors,	Greenwood	15 00	
Frache, A O	do	"	15 00	
Frankovitch, M	do	"	12 00	
Gibson, E E	do	"	15 00	
Russell, F W	do	"	15 00	
Sheads, H A	do	"	31 00	
Pay-lists	Grand and Petit Jurors,	"	417 45	
Carment, J J	Selector of Jurors,	Kamloops	10 00	
Robinson, J T	do	"	5 00	
Rowlands, D W	do	"	5 00	
Pay-lists	Grand and Petit Jurors,	"	1,103 10	
Planta, A E	Selector of Jurors,	Nanaimo	5 00	
Shakespeare, E	do	"	5 00	
Pay-lists	Grand and Petit Jurors,	"	1,248 00	
Drinkwater, J	Services, travelling through Delta, Surrey and Langley *re* men available for jury 5 days @ $4,	New Westminster	20 00	
McBride, E G	Selector of Jurors,	"	10 00	
Russell Hotel	Meals for jurors,	"	231 00	
Venables, P F	Selector of Jurors,	"	10 00	
Pay-lists	Grand and Petit Jurors,	"	3,684 90	
Kilpatrick, T	Selector of Jurors,	Revelstoke	10 00	
Kincaid, A E	do	"	10 00	
Pay-lists	Grand and Petit Jurors,	"	431 60	
Buscombe, F	Selector of Jurors,	Vancouver	10 00	
Ferrara, A G	Meals for jurors,	"	8 40	
Hall, J D	(Paid) "	"	5 60	
Johnson, C G	Selector of Jurors,	"	10 00	
News-Advertiser	Notifying jurors not to attend,	"	75	
Vanc Daily Province	do	"	5 95	
Pay-lists	Grand and Petit Jurors,	"	3,716 00	
Carew, A C	Selector of Jurors,	Vernon	5 00	
Heggie, H A	do	"	5 00	
Simms, C D	do	"	5 00	
Simms, C D	Services as Solicitor of jurymen,	"	4 days @ $5 20 00	
Pay-lists	Grand and Petit Jurors,	"	309 60	
Baker, T	Auto-hire for jurors	Victoria	4 50	
Colonist P & P Co, Ltd	Notice to jurors,	"	4 00	
Dominion Hotel	Meals for jurors,	"	48 45	
Hall, L, M D	Selector of Jurors,	"	10 00	
Moore, F R	Auto-hire for jurors,	"	6 00	
New England Hotel	Meals for jurors,	"	14 00	
Prior, F A	Auto-hire for jurors,	"	6 00	
Shotbolt, T	Selector of Jurors,	"	10 00	
Times P & P Co, Ltd	Notice to jurors,	"	12 40	
Warren & Chilton	Auto-hire for jurors,	"	9 00	
Watson & Penman	do	"	6 00	
Wood, D	do	"	4 50	
Pay-lists	Grand and Petit Jurors,	"	3,345 00	
				17,938 30
	Vote No. 74.—Prosecution and Interpreters.			
Brunich, G	Interpreter, Speedy Trials and Assizes,	Atlin	5 00	
Andrew Bob	do "	Ashcroft	2 00	
Charlie Loo Fook	do "	"	19 60	
Hem, P	do "	"	2 00	
Murphy, J	Crown Counsel, "	"	40 00	
Nyler, F	Interpreter, "	"	2 00	
Scotty (Indian)	do "	"	2 00	
Horan, H P	do "	Clinton	12 00	
Lucas, F G T	Crown Counsel, "	"	862 43	
Manuel, A	Interpreter, "	"	6 00	
Shields, J D	do "	"	2 00	
Mecredy, T	Crown Counsel, "	Cranbrook	40 00	
Nisbet, W A	do "	"	60 00	
Wing Chong	Interpreter, "	Cumberland	2 00	
Silseemult, D (Indian)	do "	Duncan	2 00	
	Carried forward		.....	31,448 38

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	31,448 38
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 74.—Prosecution and Interpreters.—Continued.		
Banwell, S	Crown Counsel, Speedy Trials and Assizes, Fernie	25 00	
Carosella, L	Interpreter " "	9 00	
De Luca, T	do " "	12 00	
Herchmer & Martin	Crown Counsel, " "	643 75	
Kehar Singh	Interpreter, " "	36 60	
Marmol, T	do " "	6 00	
Marchineak, P	do " "	3 00	
MacNeil, A	Crown Counsel, " "	233 30	
Rudnicki, J F	Interpreter, " "	18 00	
Simons, J	do " "	3 00	
Santa Singh	do " "	57 50	
Zeliznik, J	do " "	2 50	
Hill, F B	Crown Counsel, " Golden	37 50	
MacKenzie, H L	do " Grand Forks	25 00	
Bombini, S	Interpreter, " Greenwood	3 00	
Buckless, F C	Auto-hire for Bombini, " "	2 00	
Clayton, W	Crown Counsel, " "	44 05	
Frankovitch, M	Interpreter, " "	10 00	
Ladner, L J	Crown Counsel, " "	877 10	
Barney, M	Interpreter, " Hazelton	5 00	
Holland, W	do " "	2 00	
Jack Joseph (Indian)	do " "	6 00	
Martin, C	do " "	4 00	
Noel, W	Services as Magistrate, $5, auto-hire, $5, Speedy Trials and Assizes, Hazelton	10 00	
Sampere, R A	Interpreter, Speedy Trials and Assizes, Hazelton	2 50	
Tomlinson, R	do " "	2 50	
Alec Bob	do " Kamloops	2 50	
Baird, W J	Crown Counsel, " "	373 50	
Deleath, D	Interpreter, " "	2 00	
Edwards, J	do " "	50	
Fulton, F J	Crown Counsel, " "	76 90	
Leonard, A	Interpreter, " "	5 00	
Maitland, R R	Crown Counsel, " "	315 45	
Phillip, A	Interpreter, " "	1 00	
Seymour, William	do " "	3 00	
Cochrane & Ladner	Crown Counsel, " Kelowna	32 50	
Beevor-Potts, C H	do " Nanaimo	20 00	
Celli, M	Interpreter, " "	3 00	
Harrison, V B	Crown Counsel, " "	332 72	
Hastings, H	Interpreter, " "	59 40	
Johnston, A S	Crown Counsel, " "	968 55	
Leighton, Ross & Elder	do " "	35 00	
Vinciguerra, D	Interpreter, " "	10 00	
Windsor Hotel	Board and rooms for Interpreters, Speedy Trials and Assizes, Nanaimo	36 00	
Yoshy, F	Interpreter, Speedy Trials and Assizes, Nanaimo	61 60	
Romano, C	do " Nelson	2 00	
Baxter, R W	Auto-hire for Crown Counsel, Speedy Trials and Assizes, New Westminster	1 00	
Brooke, C J	Interpreter, Speedy Trials and Assizes, New Westminster	15 70	
Burton, A H	do " "	52 20	
Charlie Loo Fook	do " "	57 05	
Falconi, M	do " "	37 10	
Grant, J R	Crown Counsel, " "	66 00	
Grant, J R	Services as Permanent Crown Counsel, " ..... 11 months @ $100	1,100 00	
Hansford, W F	Crown Counsel, Speedy Trials and Assizes, "	660 00	
Jagat Singh	Interpreter, " "	5 35	
Jung Yung	do " "	5 35	
Knox, T	do " "	2 50	
Mah Yam	do " "	4 00	
Murray, H	do " "	20 00	
McQuarrie, W G	Crown Counsel, " "	685 91	
Peters, D	Interpreter, " "	16 00	
Ogilvie, W P	Crown Counsel, " "	25 00	
Wilson, P E	do " Prince George	302 85	
Collison, W E	Interpreter, " Prince Rupert	12 00	
Edenshaw, H	do " "	2 50	
Fisher, W E	Crown Counsel, " "	440 00	
Jung Chan Jaan	Interpreter, " "	6 00	
Makayama, T	do " "	2 50	
Moraes, J	do " "	2 50	
Patmore, L W	Crown Counsel, " "	50 00	
Tominaga, S	Interpreter, " "	13 45	
Avison, E J	Crown Counsel, " Quesnel	25 00	
Boyd, H	Interpreter, " "	1 50	
Poquette, M	do " "	2 00	
Briggs, W I	Crown Counsel, " Revelstoke	25 00	
Gillan, C E	do " "	210 60	
Brooke, C J	Interpreter, " Vancouver	10 00	
Burns, W E	Crown Counsel, " "	1,979 30	
	Carried forward	.....	31,448 38

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	31,448 38
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 74.—Prosecution and Interpreters.—Concluded.		
Burton, A H	Interpreter, Speedy Trials and Assizes, Vancouver	28 00	
Cara, J	do " "	20 00	
Charlie Loo Fook	do " "	196 90	
Comiti, J	do " "	2 50	
Correlli, J	do " "	45 50	
Culetilsum, J	do " "	2 50	
Davis, G	do " "	12 00	
Falconi, M	do " "	16 00	
Gwann, L	do " "	8 00	
Kennedy, H	do " "	8 00	
Lazarus, C	do " "	12 00	
Maitland, R L	Crown Counsel, " "	6 70	
Maitland, R R	do " "	187 25	
Mackay, W M	Services for Attorney General's Department, Vancouver, 9 months @ $300; Stenographer, 9 months @ $60	3,240 00	
McKay & O'Brien	Crown Counsel, Speedy Trials and Assizes, Vancouver	128 00	
Peterson, E	Interpreter, " "	28 00	
Sabel, J	do " "	8 00	
Simpson, D M	Stenographer *re* Bazzani, " "	7 00	
Sun, L	Interpreter, " "	23 75	
Takeuchi, T	do " "	4 00	
Wood, H S	Crown Counsel, " "	681 55	
Wong Jam	Interpreter, " "	16 00	
Yit, W E	do " "	4 00	
Yoshy, F	do " "	44 00	
Billings & Cochrane	Crown Counsel, " Vernon	198 10	
Cochrane & Ladner	do " "	117 85	
Donaghy, D	do " "	245 25	
Gillard, E	Interpreter, " "	2 00	
Harris, I	do " "	15 00	
Marchand, A	do " "	2 00	
Barnard, Robertson, Heisterman & Tait	Crown Counsel, " Victoria	30 00	
Bradshaw & Stacpoole	do " "	517 50	
Brandon, J S	do " "	110 00	
Bullock-Webster, W H	do " "	110 00	
Delip Singh	Intrepreter, " "	2 50	
Elliott, Maclean & Shandley	Crown Counsel, " "	10 00	
Harbant Singh	Interpreter, " "	15 00	
Hastings, H	do " "	115 00	
Herchmer, H W	Crown Counsel, " "	150 00	
Lowe, R C	do " "	50 00	
Moore, F R	Auto hire *re* Reid for Crown Counsel, Speedy Trials and Assizes, Victoria	21 00	
Moresby, W C	Crown Counsel, Speedy Trials and Assizes, Victoria	2,040 00	
Moresby, O'Reilly & Lowe	do " "	30 00	
Morphy, G A	do " "	10 00	
McDonald, L	Interpreter, " "	2 00	
Nagana, T	do " "	2 50	
Powell, M T	Auto-hire for Interpreter, " "	1 00	
Stacpoole, F J	Crown Counsel, " "	105 00	
Tait, D S	do " "	30 00	
Yip Wing	Interpreter, " "	27 50	
Zarelli, D	do " "	5 00	
Baird, W J	Services as Counsel *re* Forest Branch claim for stumpage *re* Skeena River Mills	15 00	
Johnson, A M	Expenses to Vancouver *re* habeas corpus application *re* Bernstein	16 00	
Weldon & Stephens, Montreal	Services *re* Dobie Webb (bigamy)	15 00	20,053 16
	Vote No. 75.—Expenses of Inquests.		
Agassiz, L A	Holding 2 inquests, $20; expenses, $10.25; Agassiz	30 25	
McCaffrey, P S	do 1 inquest, Agassiz	10 00	
Morgan, A D	do 1 " $10; inquiry, $5; Alberni	15 00	
Stevenson, R G	do post-mortem, Alert Bay	10 00	
Connolly, A K	do inquiry, $5; expenses, $4.25; Annis	9 25	
Barclay, D J	Medical evidence, Anyox	5 00	
Dickson, W H	Post-mortems, $20; medical evidence, $20; Anyox	40 00	
Hyde, E H T	Holding 11 inquests, Anyox	110 00	
McQuarrie, A L M	do inquiry, Barnet	5 00	
Davidson, C	Medical evidence, Bear Creek	15 00	
Ewart, P	Holding inquest, $10; expenses, $3.16; Bear Creek	13 16	
Urquhart, J C	Auto-hire for Coroner, Blue Springs	20 00	
Weddell, E	Holding inquiry, 2 days, $10; expenses, $3.25; Blue Springs	13 25	
Rose, W O	do inquest, $10; expenses, $10.00; Bonnington Falls	20 00	
Baillie, G P	do " 10; " 5.10; Boston Bar	15 10	
Burke, G	do post-mortem, Britannia Beach	10 00	
	Carried forward	.....	51,506 54

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		51,506 54
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 75.—Expenses of Inquests.—Continued.		
Lawler, F B	Medical examination, Bull River	5 00	
Wilkes, H A	Holding inquest, $10; inquiry, $5; expenses, $11.80; Bull River	26 80	
B C Garage	Auto-hire, Campbell River	36 00	
Marshall, S	Launch-hire, Campbell River	8 00	
Shaw, W F	Medical examinations and evidence, Campbell River	25 00	
Sloan, H	Auto-hire, Campbell River	15 00	
Wallace, J	Interpreter Campbell River	2 00	
Kingston, C M	Holding inquiry, $5; expenses, $5; Cascade	10 00	
Scatchard, W	do inquest, $10; inquiry, $5; Chase	15 00	
Agassiz, L A	do inquiry, $5; expenses, $6.70; Chapman's	11 70	
Pelly, J	do " Chilliwack	5 00	
Wilkes, H A	do 4 inquests, 2 days each, $80; expenses, $3.70; Coal Creek	83 70	
McCaffrey, D M	do inquiry, $5; expenses, $5.50; Coalmont	10 50	
Hagan, W J	Auto-hire, Cobble Hill	2 50	
Kier, W	Launch-hire, meals, and room, Cobble Hill and Cowichan Lake	13 00	
Stephens, H F D	Holding 2 inquests, Cobble Hill and Cowichan Lake	20 00	
Cox, H B	Examination and medical evidence, Comox	5 00	
Wallis, R P	Holding inquiry, $5; auto-hire, $10; Coombs	15 00	
McCaffrey, D M	do inquest, $10; expenses, $5.50; Copper Mountain	15 50	
Millard, H P	Examinations and medical evidence, Courtenay	25 00	
Green, F W	Holding inquest, $10; 3 inquiries, $15; expenses, $28; Cranbrook	53 00	
Harrison, H	Services as Stenographer, Cranbrook	2 65	
Henderson, G B	Medical examinations, Creston	10 00	
Bickle, E	Holding inquests, $210; inquiries, $80; expenses, $72.51; Cumberland and Campbell River	362 51	
MacNaughton, G K	Examinations and medical evidence, Cumberland and Campbell River	60 00	
Wing Chong	Interpreter, Cumberland and Campbell River	2 00	
Stephens, H F D	Holding 2 inquests, $20; 2 inquiries, $15; expenses, $4; Duncan	39 00	
Duncan Garage	Auto-hire, Duncan	26 00	
Dykes, W D	Post-mortems, $30; expenses, $13.60; Duncan and Cowichan Lake	43 60	
Doherty, F J	Holding inquest, $10; inquiry, $5; Essondale	15 00	
White, R B	do inquiry, $5; expenses, $20; Fairview	25 00	
Carrossella, L	Interpreter, Fernie	6 00	
Eshwick, W	Meals for jury, Fernie	1 75	
Perry, F G	Services as stenographer, Fernie	53 20	
Rizutto, A	Livery-hire, Fernie	3 00	
Wilkes, H A	Holding inquiry, Fernie	5 00	
Auld, J W	do Field	5 00	
Coy, F E	Medical evidence, Field	5 00	
Crothers, B	Services as stenographer, Field	5 00	
Ewart, P	Holding 4 inquests, $40; inquiry, $5; expenses, $22.26; Field	67 26	
Stainsby, F	Medical evidence, Field	5 00	
Wallis, R P	Holding inquest, $10; expenses, $5.90; French Creek	15 90	
Ingham, O G	Post-mortem, Gabriola Island	10 00	
McLay, T R	Launch-hire, Gabriola Island	5 50	
Wallis, R P	Holding inquiry, $5; expenses, $11.25; Gabriola Island	16 25	
Migamatsu Endo	Launch-hire, Ganges	5 00	
Davidson, C	Medical evidence, Glacier	5 00	
Coy, F E	Post-mortem, $10; expenses, $14; Golden	24 00	
Ewart, P	Holding inquest, $10; 2 inquiries, $10; medical evidence, $4; Golden	24 00	
Hamilton, J H	do inquiry, 2 days, $10; expenses, $9.95; Golden	19 95	
Peer, M	Services as stenographer, Golden	2 00	
Stainsby, F	Post-mortem, $10; expenses, $2.50; Golden	12 50	
Kingston, C M	Holding inquiry, $5; expenses, $5; Grand Forks	10 00	
McCallum, C T	Examination and medical evidence, Granite Bay	5 00	
Arnott, C A	Holding inquest, $10; expenses, $5.71; Greenwood	15 71	
MacLean, J D	do $10; inquiry, $5; Greenwood	15 00	
Stuart, A J	do $10; expenses, $2; Hatzic Lake	12 00	
Alger, S	Meals and bed, Hazelton	1 50	
Bell, L S	Witness fees, $4; auto-hire, $4; Hazelton	8 00	
Player, A E	Holding inquiry, Hazelton	5 00	
Ruddy & MacKay	Conveying body and stage fare, Hazelton	6 00	
Stephenson & Crum	Defrosting body, 2 days @ $3, Hazelton	6 00	
Wrinch, H C	Medical examinations and evidence, Hazelton	15 00	
Elliot, R	Holding inquiry, Hedley	5 00	
Agassiz, L A	do inquests, $30; inquiries, $15; expenses, $24.25; Hope	69 25	
Elliot, J C	do inquiry, $5; expenses, $9; Hope	14 00	
Fairbairn, W H	Launch-hire, Hydah	7 50	
McQuarrie, A L	Holding inquiry, Ioco	5 00	
Bean, P	Witness fee and expenses, Jaffray	4 65	
English, J W	Bed and meals, Jaffray	3 50	
King, R	Livery-hire and meals, Jaffray	6 00	
McTavish, J	Auto-hire, Jaffray	10 00	
Wilkes, H A	Holding inquest, $10; expenses, $18; Jaffray	28 00	
Agnew, F V	Medical evidence, Kamloops	5 00	
Archibald, M G	Holding inquests, $40; inquiries, $25; Kamloops	65 00	
Botallia, P	Witness fee, Kamloops	2 00	
Bigglow, C A	do "	2 00	
	Carried forward		51,506 54

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		51,506 54
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	***Vote No. 75.—Expenses of Inquests.*—Continued.**		
Bodfish, G	Witness fee and expenses, Kamloops	2 50	
Burris, J H	Medical evidence, "	5 00	
Hughes, T	Witness fees and expenses, "	15 00	
Jaco, A P	do "	2 50	
Larson, C	do "	7 00	
Michel, A	do "	2 50	
Munroe, J H P	do "	15 00	
Smith, B	Services as Stenographer, "	28 60	
Wallinger, A	Witness fee and expenses, "	6 00	
Arnott, C A	Medical examination, $5; expenses, $2; Kelowna	7 00	
Boyce, B F	do Kelowna	5 00	
Weddell, E	Holding inquest, 3 days @ $30; 5 inquiries, $25; expenses, $9.70; Kelowna	64 70	
Burr, E E	Auto-hire, Keremeos	12 50	
Elliott, R	Holding inquiry, $5; expenses, $10; Keremeos	15 00	
Morgan, A D	do inquest, 10; " 24.60; Kildonan	34 60	
Henderson, G B	do inquiry, 5; " 85c.; Kitchener	5 85	
Boyce, B F	Medical examination, Knox Mountain	5 00	
Graham, E	Auto-hire, "	3 00	
Weddell, E	Holding inquiry, "	5 00	
St Laurent, A	do and expenses, Lake Bennett	16 10	
Henderson, A	do Lund	5 00	
Baillie, G B	Holding inquest, 2 days, Lytton	20 00	
Sanson, G	do post-mortem, $10; expenses, $15; Lytton	25 00	
Wilson, T	Witness fee, Lytton	2 00	
Alexander, J S	Rail fares, meals, bed, Mapes	10 90	
Hoy, D H	Livery-hire, "	7 00	
Fraser, A Ross	Holding inquiry, $5; expenses, $3.60; Mayne Island	8 60	
Brindac, V	Interpreter, Michel	3 00	
Estabrooke, E S	Rent of hall, 4 days @ $5, Michel	20 00	
Mira, P	Interpreter, Michel	3 00	
Murray, A C	Holding inquest (8 sittings), $80; inquiries, $50; expenses, $54; Michel	184 00	
Perry, F G	Services as Stenographer, transcripts of evidence, and expenses, "	146 20	
Weldon, R C	Medical examination and evidence, Michel	10 00	
Wilkes, H A	Holding inquest, $10; expenses, $3.20; Michel	13 20	
Kingston, C M	do inquiry, $5; " $18.50; Midway	23 50	
Stuart, A J	do 2 inquests, $20; " $2; Mission City	22 00	
Tupper, J A	Auto-hire, Mission City	3 00	
Archibald, M G	Holding inquest, 2 days, $20; expenses, $46; Mount Olie	66 00	
McLean, E H S	do " $10; " $14; Nakusp	24 00	
Macpherson, J S	do " Nakusp	10 00	
Stone, M	Services as Stenographer, Nakusp	3 50	
Fulton, R B	do " Nanaimo	8 55	
Wallis, R P	Holding 3 inquests, $40; 4 inquiries, $20; expenses, $64.25; Nanaimo	124 25	
Murray, A C	do inquest, 3 sittings, $25; expenses, $7.60; Natal	32 60	
Hartin, G	do inquiries, $40; expenses, $35; Nelson	75 00	
Rose, W O	do 2 inquests, $20; " 50c.; "	20 50	
Gomm, W E	do 2 " $30; " $3; New Denver	33 00	
Matheson & Emerson	Livery-hire, New Denver	5 00	
Baxter, R W	Auto-hire, New Westminster	1 50	
Doherty, F J	Holding 2 inquests, $20; 1 inquiry, $5; expenses, $15; New Westminster	40 00	
McQuarrie, A L	do inquiry, New Westminster	5 00	
Walker, R E	Medical examination and evidence, New Westminster	10 00	
Tutill, G H	Holding inquest, $10; expenses, $8; Nicola	18 00	
Feare, W K	Medical evidence, 2 days, 150-Mile House	10 00	
Rose, W O	Holding inquest, $10; expenses, $4.50; Park Siding	14 50	
Andrew, F W	Post-mortem, $10; " $5; Penticton	15 00	
White, R B	Holding 2 inquests, Penticton	20 00	
Arnott, C A	do inquest, $10; expenses, $5.75; Phoenix	15 75	
Ritchie, W L	Medical evidence, Phoenix	5 00	
Cade, J P	Post-mortem, $10; expenses, $28; Port Clements	38 00	
Harrison, C	Holding inquest, 2 days, $20; expenses, $5.25; Port Clements	25 25	
Conway, J	Room and board, Port Essington	6 45	
Large, R	Holding 3 inquiries, $15; expenses, $5; Port Essington and Port Simpson	20 00	
Henderson, A	Holding 2 inquests, $20; 2 inquiries, $10; expenses $7.50; Powell River	37 50	
Marlatt, C R	Post-mortems and medical evidence, Powell River	20 00	
Hooson, J E	Fares, meals, and room, Prince George	11 05	
McCaffrey, D M	Holding inquest, $10; expenses, $8; Princeton	18 00	
Marshall, S	Livery-hire, Quathiaski Cove	1 50	
Baker, G R	Post-mortem and medical evidence, Quesnel	15 00	
Boyd, A	Auto-hire, Quesnel	36 00	
Inland Express Co	do "	2 00	
Tutill, G H	Holding inquest, $10; expenses, $15; Quilchena	25 00	
Briggs, W I	do " 10; 2 inquiries, $10; Revelstoke	20 00	
McLean, E H S	do 4 inquests, $40; 5 inquiries, $25; expenses, $61.40; Revelstoke	126 40	
Urquhart, J A	Medical evidence, Revelstoke	5 00	
Elliot, J C	Holding inquest, $10; expenses, $10; Rosedale	20 00	
Madsen, W C	Guarding body, 18 hours, Rosedale	5 00	
Petersen, L	do "	5 00	
	Carried forward		51,506 54

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	51,506 54
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 75.—Expenses of Inquests.—Concluded.		
Coffin, J W	Holding 2 inquests, Rossland	20 00	
Plewman, R E	Services as Stenographer, "	7 50	
Williams, C S	Post-mortem, "	10 00	
Connolly, A K	Holding inquiry, $5; expenses, $6; Salmon Arm	11 00	
Stephens, H D F	Provisions for party bringing out body of J. Pemberton from Jordan Meadows, Shawnigan Lake	3 00	
Kier, W	Room and board *re* bringing out body of J. Pemberton from Jordan Meadows, Shawnigan Lake	2 40	
Gomm, W E	Holding inquest, 2 days, $20; expenses, $5.65; Silverton	25 65	
Connolly, A K	do " $10; inquiry, 2 days, $10; expenses, $12.15; Solsqua	32 15	
Hartin, G	do 2 inquiries, $10; expenses, $10; South Slocan	20 00	
Fort, H R	Medical examination and evidence, $5; expenses, $3.60; Stein Creek	8 60	
Baillie, G B	Holding inquiry, $5; expenses, $5; Stein Creek	10 00	
Henderson, A	do " 5; " $16.50; Stillwater	21 50	
Connolly, A K	do inquest, $10; 2 inquiries, $10; expenses, $11; Tappen	31 00	
Crawford, M T	Witness fees and expenses, Tappen	7 00	
McLeod, N	do " "	7 00	
Power, J	do " "	7 00	
Maclean, C C G	Medical examination, $5; expenses, $5; Telkwa	10 00	
Connolly, A K	Holding inquiry, $5; expenses, $6.50; Three Valley	11 50	
Adolfson, A	Witness fees and expenses, Vancouver	10 00	
Anderson, C	do "	7 00	
Blair, W E	Meals, "	1 00	
Blakesley, A L	Services as Stenographer, "	2 50	
Campaynole, A	Witness fees and expenses, "	8 00	
Campbell, G	do "	8 00	
Cates, G E	do "	9 00	
Chisholm, D	do "	8 00	
Correlli, J	Interpreter, "	8 00	
Curtis, G F	Holding 7 post-mortems, "	70 00	
Dacke, C	Witness fees and expenses, "	8 00	
Dick, A	do "	6 00	
Green L	do "	6 00	
Green, R	do "	6 00	
Hughes, C F	Services as Stenographer, transcripts, Vancouver	83 30	
Jeffs, T W	Holding 17 inquests, $170; 22 inquiries, $110; expenses, $2.90; Vancouver	282 90	
Keitaro Saito	Witness fees and expenses, Vancouver	8 60	
Lavery, J	do "	8 00	
Lucas, J	do "	10 00	
Martin, J	do "	8 00	
P G E Railway Co	Transportation of body, "	1 00	
Palmer, E	Witness fees and expenses, "	6 00	
Pantzar, M A	do "	10 00	
Peterson, E	do "	4 00	
Reed, H	do "	8 00	
Shearer, W	do "	6 00	
Terrace, R A	do "	8 00	
Tonelli, A	do "	8 00	
Westby, A A	do "	6 00	
Yoshy, F	Interpreter, "	8 00	
Ewart, C	Post-mortem, 4 days, $40; expenses, $13.25, Vanderhoof	53 25	
Hooson, J E	Fares, meals, and bed, Vanderhoof	5 40	
Nechaco Drug Co	Alcohol, Vanderhoof	75	
Campbell Bros	Use of morgue, $5; thawing out body, Vernon	10 00	
Duncan, G E	2 post-mortems, Vernon	20 00	
Miller, H	Assistance at post-mortem, Vernon	2 50	
Morris, O	Holding inquiry, $5; expenses, $2.50; Vernon	7 50	
Urquhart, J C	Auto-hire, Vernon	15 00	
Boak, E W	Post-mortem and medical evidence, Victoria	10 00	
Bryant, F M	do "	10 00	
Lennox, J W	do "	10 00	
Mace, A	Rail fare as witness, Victoria	85	
Miller, T	Medical evidence, "	5 00	
Stanier, F T	Holding 4 inquests, $40; 4 inquiries, $20; Victoria	60 00	
Tait, A	Launch-hire, serving summons, Victoria	1 00	
Tomalin, W J C	Medical evidence, Victoria	5 00	
Tucker, L B	Expenses *re* body of D. McRae, Victoria	17 10	
McLean, E H S	Holding inquiry, $5; expenses, $10; West Arrow Park	15 00	
Campbell, J I	Ferry-hire, Westbank	2 00	
Agassiz, L A	Holding inquest, $10; expenses, $4.80; Yale	14 80	
Dwyer, N E	Express on exhibits *re* death of W. R. Stewart, killed on C. P. Railway	75	
Eldridge & Co, G S	Making microscopic examination for carbon monoxide of a sample of blood taken from the body of one of the victims of the explosion in No. 3 East Mine, Michel Colliery, on 8th August, 1916	12 50	
			4,856 84
	Carried forward	.....	56,363 38

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	56,363 38
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*			
	Vote No. 77.—Keep of Prisoners.			
Archibald, M G	Examinations as to sanity,	Kamloops Gaol	15 00	
Bestwick, R	Turnips,	"	7 50	
B C Refining Co	Disinfectant,	"	12 00	
B C Telephone Co	Rent of phone,	"	3 00	
Burns & Co, Ltd, P	Meat,	"	647 92	
Celeste, A	Hay,	"	15 02	
City of Kamloops	Electric light, $245.70; water, $193;	"	438 70	
Clements, J H	Prescriptions, drugs, etc.,	"	117 46	
Curry, V D	Bread,	"	895 99	
Dalgleish, N S	Hardware, seeds, etc.,	"	101 59	
Duncan, H	Hay,	"	44 60	
Giddens, H	Cleaning chimneys,	"	7 00	
Kamloops Harness Co	Snaps, rivets and repairs,	"	1 15	
Kamloops Plumb & H Co.	Repairs,	"	2 70	
Kelly, F A	Blacksmithing,	"	26 50	
Lund, H	Fuel,	"	3 00	
Milton, J	Hay, oats, etc.,	"	33 80	
Mitchell, J R	Hay,	"	74 34	
McCall, R	Groceries and provisions, coal-oil, etc.,	"	497 78	
McEwan, T	Hauling ice, 2 days @ $2.50,	"	5 00	
Northern Transfer Co	Coal,	"	1,241 49	
Paxton, J D	Veterinary services,	"	6 00	
Rennie & Co, Ltd, W	Seeds,	"	29	
Schlk, F	Repairing shoes,	"	40 95	
Stillman, A	Sacks, 60 @ 8c,	"	4 80	
Summers & Frost	Shoes, clothing, dry-goods, etc.,	"	219 10	
		Total, $4,462.68		
City of Nanaimo	Water,	Nanaimo Gaol	19 05	
Hodgins, J B	Prescription,	"	50	
Hoggan, W	Towels, soap, brooms,	"	10 30	
Ingham, O G, M D	Medical examinations and setting fractured arm,	"	35 00	
McKenney, W	Coal and wood,	"	61 50	
Nanaimo Electric Light, Power & Heating Co.	Electric light,	"	39 25	
Philpott's Café	Meals,	"	137 60	
Stephenson, M	do	"	97 25	
Wilks, W E	Medical attendance,	"	2 50	
		Total, $402.95		
Arthur, I, M D	Examination as to sanity,	Nelson Gaol	5 00	
B & K Milling Co, Ltd.	Seed-potatoes,	"	5 60	
City of Nelson	Electric light, $150; water, $241.80;	"	391 80	
Crescent Dairy	Milk,	"	2 20	
Emory & Walley	Towels and socks,	"	11 50	
Gilker, J A	Caps, rubbers, thread, towels, etc.,	"	54 65	
Hay & Co, R B	Bread,	"	533 20	
Irving & Co, J A	Groceries and provisions,	"	385 53	
Ludwig, J M	Leather, rivets, thread, etc.,	"	35 72	
McKim, W J	Seed-potatoes,	"	5 25	
McLaren, H W	Meals,	"	1 25	
Nelson Hardware Co	Spray, pump, hardware, etc.,	"	11 95	
Nelson Transfer Co, Ltd.	Manure and cartage,	"	5 65	
Peters, G G	Meat and fish,	"	399 60	
Poole Drug Co	Prescriptions, bandages, drugs, etc.,	"	49 65	
Rutherford Drug Co	Seeds and spray,	"	6 25	
Singer Sewing Mach Co.	Repairing sewing-machine,	"	2 00	
West, W W	Wood,	"	225 00	
West Transfer Co	Cartage,	"	50	
Wood-Vallance Hdw Co.	Hardware, leather soles and heels, rivets, etc.,	"	27 35	
		Total, $2,159.65		
Annandale Supply Co	Groceries and provisions, brooms, etc.,	New Westminster Gaol	217 75	
B & K Milling Co, Ltd.	Hay, oats, seed, etc.,	"	76 20	
B C Refining Co	Disinfectant,	"	10 40	
Chamberlain, W C	Repairing Watchman's clock,	"	3 00	
City of New Westminster	Electric light, $227.68; water, $221.53;	"	449 21	
Cunningham Hardw Co.	Hardware, repairs, etc.,	"	67 57	
Cunningham & Son, G	Blacksmithing,	"	36 50	
Curtis & Co, D S	Prescriptions, drugs, etc.	"	124 78	
Davison, S J	2 bits,	"	70	
Gilley Bros, Ltd	Coal,	"	318 39	
Johnston's Big Shoe Store	Gum boots and laces,	"	16 00	
Monk & Co, M	Fish,	"	87 78	
	Carried forward		.....	56,363 38

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts
	Brought forward		.....	56,363 38
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*			
	***Vote No. 77.—Keep of Prisoners.*—Continued.**			
McKay, J G, M D	Examination as to sanity,	New Westminster	10 00	
New Westminster Gas Co	Gas,	"	59 65	
Reid & McDonald	Socks, gloves, yarn, etc.,	"	50 77	
Ryall, H	Seed,	"	13 85	
Shelley Bros	Bread,	"	576 94	
Steeves, H C	Examination as to sanity,	"	10 00	
Swanson, O	Repairs to meat-grinder,	"	35	
Trapp & Co, T J	Steel point fitted to plough,	"	3 25	
V P R Meat Co, Ltd	Meat,	"	594 02	
Ward, L	Milk,	"	14 00	
Westminster Iron Works	Repairs to soup-kettle, etc.,	"	18 00	
		Total, $2,759.11		
B C Electric Co, Ltd	Light and power, $712.97; freight, $29.90; switching charges, $5; Oakalla Prison Farm		747 87	
B C Nurseries Co, Ltd	Fruit trees,	Oakalla Prison Farm	55 75	
C P Railway Co	Freight,	"	45 50	
Corporation of Burnaby	Water,	"	534 79	
Cull, N G	Repairs to eyeglasses,	"	3 25	
Curtis & Co, D S	Drugs, etc.,	"	181 11	
Dominion Express Co	Expressage,	"	45	
Fleischmann Co	Yeast,	"	13 50	
Gilley Bros, Ltd	Coal,	"	1,832 60	
Lewis & Sills, Ltd	Hardware, paint, oils, grease, etc.,	"	77 70	
London Grocery Co, Ltd	Groceries and provisions,	"	1,925 65	
Mainland Navigation Co	Freight, wharfage, etc.,	"	14 25	
Monk & Co, M	Fish,	"	345 23	
Oxford Dairy Co, Ltd	Milk,	"	304 05	
Rennie & Co, Ltd, W	Seeds,	"	29 60	
Spencer, Ltd, D	Groceries and provisions,	"	165 28	
Stevens Co, Ltd, B C	Medicinal supplies,	"	25 34	
Storey & Campbell	Leather and shoe-repairing materials,	"	195 99	
Tedford, J	Blacksmithing,	"	43 25	
Turner, Beeton & Co, Ltd	Dry-goods, socks, etc.,	"	229 85	
Vanc Milling & Grain Co	Flour, oatmeal, oats, bran, etc.,	"	3,404 72	
V P R Meat Co, Ltd	Meat,	"	2,175 07	
		Total, $12,350.80		
B & K Milling Co, Ltd	Hay, oats, bran, etc.,	Saanich Prison Farm	307 95	
B C Electric Ry Co, Ltd	Light and power,	"	982 84	
Burns & Co, Ltd, P	Meat,	"	499 09	
Corporation of Saanich	Water,	"	176 75	
E & N Railway Co	Freight,	"	71	
Jones, T J	Dental services,	"	6 00	
Mable, W	Band on wheel,	"	1 00	
Mackay & Gillespie	Coal,	"	3,141 60	
MacNutt, T B	Milk,	"	80	
Norris & Sons, F	Brushes, pads, harness-dressing, etc.,	"	8 50	
Rennie & Taylor	Bread,	"	1,174 70	
Shore Hardware Co, Ltd	Groceries and provisions, brooms, brushes, etc.,	"	659 10	
Turner, Beeton & Co, Ltd	Pillow-slips, towels, and socks,	"	60 45	
Victoria Transfer Co	Stabling,	"	1 50	
Williams, F J	Prescriptions, drugs, etc.,	"	104 45	
Wood & Todd	Blacksmithing,	"	34 50	
		Total, $7,159.94		
B C Electric Ry Co, Ltd	Electric light,	Abbotsford Lock-up	30 13	
Curley, J A	(Paid) Wood,	"	15 50	
Emery, D	Wood,	"	6 00	
Hatch, C J	(Paid) Wood, broom, lye, etc.,	"	11 35	
McNab, G	Wood,	"	3 00	
Morgan, A D	Medical attendance,	Alberni Lock-up	5 00	
Alert Bay Cannery Store	Coal-oil,	Alert Bay Lock-up	7 00	
B C Packers' Association	do soap, broom, etc.,	"	30 10	
Coast Steamship Co, Ltd	Coal and freight,	"	35 00	
Helmsing, H F	(Paid) Meals,	"	4 20	
Matthews, R	Cartage of coal from wharf, $5; meals, $2.10;	"	7 10	
Whannuck, J	Wood,	"	36 00	
Crawford, A	Coal and wood,	Alice Arm Lock-up	32 00	
Evindsen, O	Meals and rooms,	"	5 50	
Falconer, T W	Coal-oil,	"	3 20	
Arrowhead B C Water Co	Water,	Arrowhead Lock-up	32 00	
Gibson, J T S	(Paid) Meals,	"	3 85	
Hume & Co, C B	Coal-oil, coal-scuttle, soap, etc.,	"	9 85	
McGaghran, J B	Coal,	"	100 00	
	Carried forward		.....	56,363 38

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			56,363 38
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*			
	***Vote No. 77.—Keep of Prisoners.*—Continued.**			
Reid & Co, W R	Coal-oil, soap, brooms, etc.,	Arrowhead Look-up	6 90	
Trotter, I	Wood,	"	2 00	
Barry, A	do	Ashcroft Lock-up	64 00	
Burr, J L	Hauling rubbish,	"	12 00	
Greenwood, W	(Paid) Meals, washing blankets,	"	13 90	
Harvey-Bailey, Ltd	Coal-oil, brooms, brushes, etc,	"	7 95	
Athalmer Power & L Co	Electric light,	Athalmer Lock-up	28 00	
Lake & Son, J	Coal-oil, broom,	"	5 00	
Mills, R F	(Paid) Meals,	"	13 30	
McDonald, W C	(Paid) do	"	3 25	
Rocky Mount Livery, Ld	Wood,	"	25 00	
Ball, N E	Meals,	Atlin Lock-up	33 25	
Broughton, F	(Paid) Meals,	Bella Coola Lock-up	15 75	
Christensen, A C	Coal-oil, broom,	"	4 65	
Hardiman, J W	(Paid) Wood, coal-oil,	Blue River Lock-up	56 95	
McLaren, J B	Wood,	"	10 00	
Britannia Stores	Electric light, $35.60; coal, $40;	Britannia Lock-up	75 60	
Lines, W H	(Paid) Meals,	"	6 70	
Matthews, R	(Paid) do	"	50	
Can Pacific Railway Co	Electric light, $33; wood, $12;	Bull River Lock-up	45 00	
Markle, B E	Soap, lime, etc.,	"	2 00	
McTavish, J	Meals,	"	2 00	
Adams River Lumber Co	Light and water,	Chase Lock-up	69 60	
Brickland, H E	(Paid) Meals, wood,	"	16 55	
Condon, M J	(Paid) Wood,	"	36 50	
Dawley, W T	Coal-oil, soap, lye,	Clayoquot Lock-up	7 60	
Hibbin, F	(Paid) Wood,	"	60 00	
Hibbin, Mrs R	Meals,	"	5 50	
Clinton Trading Co	Coal-oil, lamp-burners,	Clinton Lock-up	3 80	
Davis, J	Meat, potatoes,	"	8 69	
Empire Restaurant	Meals and bread,	"	2 35	
Fraser, R	Provisions, soap, towelling, coal-oil, etc.,	"	66 11	
MacLean, A D	(Paid) Provisions,	"	2 00	
Royal Restaurant	Meals,	"	28 90	
Petersky, S	Medical examinations and prescriptions,	"	9 00	
Crow's Nest Pass Coal Co, Ltd	Light, water, and sanitation service,	Coal Creek Lock-up	87 00	
Oliver, J	Coal and wood,	"	55 55	
Corbin Coal & Coke Co	Coal,	Corbin Lock-up	36 75	
Flathead Trading Co	Coal-oil, soap, brush, etc.,	"	4 40	
Lee Chong Sing	Washing blankets,	"	1 50	
Spencer, G	Meals,	"	1 00	
Berkley, L	Wood,	Courtenay Lock-up	4 50	
Courtenay Elec L & P Co	Electric light,	"	27 77	
Creech, R	Wood,	"	4 50	
Hannay, Mrs J	Meals,	"	7 50	
Millard, H P, M D	Medical examination and livery-hire,	"	8 00	
McQuillan, R	Coal,	"	56 00	
Beattie & Murphy, Ltd	Medicine,	Cranbrook Lock-up	2 35	
Green & MacKinnan, M Ds	Medical attendance,	"	25 00	
McGuffie, H C	(Paid) Meals,	"	1 00	
Offin, E B	Meals,	"	1 50	
Roberts, T M (City Clerk)	do	"	122 50	
Forrester, W C	(Paid) Meals,	Creston Lock-up	16 25	
Goat Mount Water Works	Water,	"	21 00	
Jackson, F H	Coal-oil,	"	9 60	
McCreath, H S	Wood and coal,	"	74 70	
Spiers, J D	Wood,	"	3 50	
Canadian Collieries Co	Coal,	Cumberland Lock-up	11 00	
Cumberland Elec L Co	Electric light,	"	16 06	
Cumberland & Union Water Co, Ltd	Water,	"	15 00	
Jones, W	Meals,	"	71 25	
Macdonald, J	(Paid) Meals,	"	4 00	
Tarbell & Son, C H	Broom, lye,	"	1 10	
Mason, T G	(Paid) Meals, wood,	Ducks Lock-up	23 20	
Monte Creek Trading Co	Water, wood, coal-oil, etc.,	"	34 05	
Mottishaw, J	Meals,	Duncan Lock-up	75	
Sutton, Mrs. A	do	"	5 25	
Elko Water & Power Co	Water,	Elko Lock-up	14 00	
Gorman, M	(Paid) Meals,	"	4 00	
Klingensmith, C A	Wood	"	20 00	
Roo, F	Coal-oil, soap, broom,	"	24 50	
Wood, W	Coal, wood, water,	"	37 65	
Endako General Store	Coal-oil,	Endako Lock-up	7 65	
Gayer & Connolly	do	"	3 75	
Haydon & Cummins	do	"	7 50	
Price, J	Wood,	"	60 00	
	Carried forward			56,363 38

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	56,363 38
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*			
	***Vote No. 77.—Keep of Prisoners.*—Continued.**			
City of Enderby	Water,	Enderby Lock-up	20 25	
Mack, E J	Wood,	"	46 75	
Moser, A J	Meals,	"	11 20	
Okanagan Saw Mills, Ltd.	Electric light, $33.73; wood, $11;	"	44 73	
Patten, R W	Meals,	"	2 80	
Bonnell, Dr	Medical examination,	Fernie Lock-up	5 00	
City of Fernie	Meals,	"	472 18	
Bell, J J	(Paid) Washing blankets,	Field Lock-up	1 50	
Burns & Co, Ltd, P	Meat,	"	14 80	
C P Railway Co	Electric light,	"	30 00	
Field Trading Co, Ltd	Provisions, coal, brooms, etc.,	"	54 05	
Hankins, G	Wood, hauling ashes,	"	18 50	
Ft Steele Trading Co, Ltd	Coal-oil, brooms,	Fort Steele Lock-up	21 50	
Ft Steele Water Wks Co.	Water,	"	72 00	
Walsh, J	(Paid) Wood, $105; meals, $7.50;	"	112 50	
Walsh, M E	Meals,	"	43 00	
Atkinson, H G	Bucksaw,	Fort St. John Lock-up	1 25	
Carmichael & Briscoe	Coal-oil,	"	19 44	
Hudson's Bay Co	do	"	5 50	
Parsons, T W S	(Paid) Meals,	"	4 00	
Revillon Freres	Matches, broom,	"	1 85	
Bittancourt, A R	Wood,	Ganges Lock-up	15 00	
Dukes, E	Cleaning lock-up,	"	3 00	
Fryer, F	(Paid) Meals,	"	4 00	
Salt Spring Isld Trad Co.	Coal-oil, broom, bucket,	"	4 60	
Buckham, J A	Medicine,	Golden Lock-up	5 90	
Burns & Co, Ltd, P	Meat,	"	100 02	
Ewart, P, M D	Medical attendance and Medicine,	"	20 25	
King, T	Wood,	"	4 25	
Loy Restaurant	Bread,	"	1 70	
Nickolson, C	Hauling garbage,	"	3 50	
Parson, Ltd, H G	Groceries and provisions,	"	22 80	
Rolston, D R	do towels, etc.,	"	16 35	
Royal Bakery	Bread,	"	28 50	
Warren, C A	Groceries, mop, broom, etc.,	"	17 95	
Wood, J T	do bread, towels, toilet-paper,	"	13 40	
Granby Con M & S Co	Coal, brooms, mat, meals, etc.,	Granby Bay Lock-up	103 10	
Hutchings, J M	Meals,	"	5 35	
Sheil, J W	(Paid) Meals,	"	3 00	
Kingston, C M, M D	Medical examination,	Grand Forks Lock-up	5 00	
Stanfield, G	(Paid) Meals, washing blankets,	"	12 75	
Graser, C	Wood,	Greenwood Lock-up	24 00	
Greig & Morrison	Meals,	"	20 65	
Krueger, A	do	"	5 95	
MacLean, J D, M D	Medical examination,	"	5 00	
Williamson, J	Scavenging, 5 months @ $1,	"	5 00	
Allen, F	Hauling wood,	Hazelton Lock-up	50 88	
Burns & Co, Ltd, P	Meat,	"	91 55	
Crosby, A	Potatoes,	"	3 65	
Cunningham & Son, R	Provisions, gasolene, towels, files, etc.,	"	63 25	
Fowler, L	Wood,	"	25 00	
Getts (Indian)	Salmon,	"	1 35	
Hudson's Bay Co, Ltd	Groceries and provisions, brooms, coal-oil, etc.,	"	100 60	
Minty, A C	(Paid) Potatoes,	"	7 50	
Russell, H	Potatoes,	"	2 00	
Sargent, R S	Provisions, gasolene, coal-oil, cheese-cloth, etc.,	"	75 85	
Smith, C V	do " " etc.,	"	62 10	
Sweet, E	Wood,	"	125 00	
Up-to-date Drug Stores	Medicine, disinfectant,	"	11 30	
Wrinch, H C, M D	do "	"	3 50	
Riddel, G A	Wood,	Hedley Lock-up	7 00	
Blue, G S	(Paid) Meals,	Hope Lock-up	31 50	
Hope Trading Co	Coal-oil, soap, broom, etc.,	"	38 85	
Hope Transfer Co	Wood, expressage,	"	6 25	
Macdonald, D A	Coal,	"	96 00	
Beckett, J	Wood,	Hosmer Lock-up	7 50	
Boassaly, M	Coal-oil, coal, mop, etc.,	"	52 15	
Hosmer Livery	Hauling garbage,	"	3 00	
Norgrove, J	(Paid) Meals, expressage,	"	85	
Mansell, T A	(Paid) do	Hudson Hope Lock-up	52 50	
Read, G C	Medical attendance,	Kaslo Lock-up	5 00	
Reuter & Lathom	Meals,	"	70	
City of Kelowna	Light, water, and scavenging,	Kelowna Lock-up	32 15	
City Park Restaurant	Meals,	"	12 50	
Graham, E C	Cleaning lock-up,	"	2 00	
Jenkins Co	Wood,	"	35 00	
Trenwith, J	Electric-light globes,	"	2 00	
Daly, T	Wood,	Keremeos Lock-up	12 00	
	Carried forward		.....	56,363 38

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			56,363 38
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*			
	***Vote No. 77.—Keep of Prisoners.*—Continued.**			
Tweddle, H	Coal,	Keremeos Lock-up	21 00	
Dickie, J	Washing blankets,	Ladysmith Lock-up	3 50	
McMurtrie, A	Meals,	"	2 00	
Weaving, S	Coal,	"	16 50	
Bourne, J	(Paid) Wood, bread, etc.,	Lillooet Lock-up	36 90	
Lillooet Trading Co	Coal-oil, provisions, wood, etc.,	"	95 00	
Macfarlane, S A	Water,	"	13 75	
Santini, P	Coal-oil, soap, matches, etc.,	"	14 15	
Currie, N A	Wood,	Lucerne Lock-up	7 50	
Dewar, F A	do	"	2 50	
Heal, G D	Coal-oil,	"	10 00	
Heal & Glover	do	"	6 00	
Johnson, S A	Coal,	"	24 75	
Lee, T	Washing blankets,	"	5 00	
Smith, C L	Wood,	"	4 00	
Gill, J	Washing blankets,	Lytton Lock-up	2 50	
Hautier, A F	Hauling garbage,	"	12 00	
Lytton Water Supply Co	Water,	"	12 00	
McIntosh & Baillie	Coal, coal-oil, soap, etc.,	"	88 25	
Somerville, T	(Paid) Meals,	"	50 50	
Barclay, P	Water,	Marysville Lock-up	14 00	
Burdett, N W	Coal,	"	30 00	
Handley, P	Wood,	"	3 00	
Hodgson, G	Water,	"	7 00	
Mellor, A	Coal-oil,	"	12 25	
Shipman, G	(Paid) Meals,	"	4 00	
Davis, R O	Wood,	Masset Lock-up	12 00	
De Lisle, F	do	"	27 50	
Emmott, F N	(Paid) Meals,	"	20 25	
Goulet, A	Coal-oil,	"	5 80	
Martin, J	do broom,	"	11 75	
Orr, A	Wood,	"	8 60	
Badman, E	Meals,	Merritt Lock-up	2 10	
Gillis, J J, M D	Medical examination,	"	5 00	
McIntyre, M	Meals,	"	36 05	
Tuthill, G H, M D	Medical examination,	"	5 00	
Crow's Nest Pass Coal Co	Light, coal,	Michel Lock-up	47 65	
Estabrook, E	Meals,	"	5 50	
Fisher, G	Wood,	"	7 00	
Gee Han	Washing blankets,	"	3 00	
Trites-Wood Co, Ltd	Soap, brushes, towels, etc.,	"	6 75	
Bing, C	Wood,	Midway Lock-up	20 00	
Docksteader, W H	(Paid) Meals,	"	10 15	
Husmann, J	Wood,	"	25 50	
McMynn, J G	Coal-oil, broom, etc.,	"	29 10	
Summers, C E	do	"	3 75	
Williamson, J	Cleaning toilet,	"	1 00	
Barber, C G	(Paid) Meals,	Mission City Lock-up	27 40	
Cutler, T E	Coal,	"	59 00	
Mission Hardware Co	Water-pail and scuttle,	"	1 35	
Mission W L & Power Co	Water,	"	19 50	
Plumridge & Co, J	Soap, lye,	"	50	
Western Canada Pwr Co.	Electric light.	"	19 80	
Bell, G	(Paid) Electric light, hauling wood,	Mount Olie Lock-up	18 50	
Latremouille, T	Electric light, $25 ; water, $12 ;	"	37 00	
Tame, C	(Paid) Meals, wood,	"	21 10	
Desaulniers, V	Coal,	"	65 00	
Moyie Water Co	Water,	Moyie Lock-up	30 50	
McFarlane, A G	Wood, hauling rubbish,	"	55 00	
O'Connor, C	(Paid) Meals,	"	3 25	
Smith, R A	Coal-oil,	"	15 75	
Stevens, P	Meals,	"	1 50	
Aynsley, W C	(Paid) Meals,	McBride Lock-up	55 30	
Burns & Co, Ltd, P	Meat and fish,	"	47 04	
Crummy Bros	Groceries, coal-oil, etc.,	"	9 55	
Davidson, A	Bread,	"	62 95	
Fleet, J W	Wood,	"	30 00	
Goodman Supply Co	Lye,	"	40	
Grigsley, J B	Sharpening saw,	"	75	
Holdway, G T	Mosquito-powder,	"	2 00	
Jamieson, L C	Wood-alcohol,	"	1 25	
Morgan, J A	Wood,	"	18 75	
Moynihan, C G	Wood and coal,	"	79 00	
McBride Trading Co	Coal-oil, provisions, lime, gasolene, etc.,	"	88 97	
McDonald, F G	Wood and coal,	"	120 50	
Wyatt, W S	Mantles,	"	50	
Wyatt Bros	Soap, towels, socks, etc..	"	11 85	
Abriel, T	Cleaning toilet, wood,	Nakusp Lock-up	41 00	
	Carried forward			56,363 38

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	56,363 38
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*			
	***Vote No. 77.—Keep of Prisoners.*—Continued.**			
Dominion Express Co...	Expressage,	Nakusp Lock-up	70	
Jordan & Co, F W.....	Coal-oil,	"	28 75	
Altomare, J.	Meals,	Natal Lock-up	25 75	
Crow's Nest Pass Coal Co	Coal,	"	49 00	
Fisher, G.....	Wood,	"	12 00	
Michel W L & Power Co.	Water,	"	18 00	
Natal Light & Power Co.	Electric light,	"	8 35	
Trites-Wood Co, Ltd....	Coal-oil, soap, brooms, etc.,	"	23 85	
Wo Joe.....	Washing blankets,	"	2 10	
Angell Hardware Store..	Electric lamps,	New Denver Lock-up	1 60	
Angrignon, P.....	Coal and wood,	"	79 75	
Denver Power & Light Co	Electric light,	"	66 00	
Denver Waterworks Co..	Water,	"	36 00	
Draper, J.	Wood,	"	12 00	
Gunn, G M..	(Paid) Meals,	"	5 00	
McPhee, J.....	Wood	"	24 00	
Watson, A	do	"	6 00	
Larkworthy, W J.....	Coal-oil,	New Hazelton Lock-up	2 00	
Grant, T H.....	Meals,	New Westminster Lock-up	9 80	
Howse Co, Ltd, A E.....	Coal-oil,	Nicola Lock-up	1 75	
Kirby, S.....	Meals,	"	2 80	
Leonard, A L.....	do	"	12 60	
C P Railway Co.....	Electric Light,	North Bend Lock-up	13 40	
Salvous, P.....	Coal and wood,	"	71 00	
Wyatt, H R.....	Meals,	"	2 25	
Condon, M J.....	(Paid) Wood, meals,	Notch Hill Lock-up	5 55	
Smith & Son, W T.	Coal-oil, broom,	"	18 70	
Cariboo Trading Co.....	Groceries, provisions, coal-oil, soap, mop, etc.,	150-Mile House Lock-up	94 98	
Crosina, L J.....	Potatoes,	"	2 75	
One Dan.....	Wood,	"	15 00	
Corporation of Penticton	Electric light, water and scavenging,	Penticton Lock-up	30 92	
Main, H W.....	Medicine,	"	80	
Morgan, D J.....	Disinfectant,	"	9 00	
McDonald, R.....	(Paid) Scrubbing and cleaning, meals,	"	2 75	
Parmley, R.....	Wood,	"	39 00	
Penticton Electric Co...	Electric lamps,	"	1 60	
Penticton Hotel.....	Meals,	"	3 50	
Almstrom, A.....	Electric lamps,	Phoenix Lock-up	1 50	
Forshaw, R.....	Wood,	"	108 00	
McDonald, D J..... ...	Coal,	"	20 00	
McElroy, D L.....	Coal and wood,	"	27 00	
Phoenix Elec Light Co...	Water and light,	"	59 62	
Stewart, W B.....	(Paid) Meals,	"	2 00	
Birchall, K F.....	(Paid) do	Port Essington Lock-up	92 00	
Cunningham & Son, R..	Coal, wood, coal-oil, soap, etc.,	"	173 00	
Lincoln, W.....	Cleaning toilets,	"	14 50	
Starr, P	do	"	2 00	
Starr, W.....	do	"	8 50	
Taylor, C A.....	Water,	"	10 00	
Brentzen, F.....	Hauling coal,	Port Simpson Lock-up.....	3 00	
Deane, V H.....	Meals,	"	49 25	
Young, R B.....	Coal, coal-oil, wharfage,	"	129 00	
Wesley, H....	Hauling coal,	"	10 00	
Atkinson, H G.....	Coal-oil,	Pouce Coupe Lock-up	21 75	
Codona, L P.....	Wood,	"	12 00	
Coons, M.....	do	"	24 00	
Palmer, F	do	"	20 00	
Piper, E.....	do	"	4 00	
Marlett, C R, M B.....	Medical examination	Powell River Lock-up.....	5 00	
McFall, G E.....	Wood,	"	12 00	
Powell River Co, Ltd....	Electric light,	"	19 90	
do	Wood,	"	29 25	
Wing, H A.....	Meals,	"	2 25	
Christie, J, M D..... ...	Medical examination,	Prince Rupert Lock-up.....	5 00	
City of Prince Rupert...	Meals,	"	88 50	
McCaffrey, D, M B.....	Medical examination,	Princeton Lock-up.....	3 00	
Princeton Coal & Land Co	Electric light,	"	24 00	
Princeton Drg & Bk Store	Disinfectant,	"	50	
Summers & Wardle.....	Meals,	"	47 95	
Thomas Bros.....	Soap, lye,	"	70	
Marshall, S	(Paid) Meals, coal-oil, wood, etc.,	Quathiaski Cove Lock-up	83 60	
Baker, G R.....	Medical attendance,	Quesnel Lock-up.....	10 00	
Cowan Supply Co.....	Groceries,	"	13 30	
Ewing, W T.....	Meat,	"	11 98	
Fraser & Co, J A.....	Groceries, clothing, etc.,	"	12 20	
Harris, H V.....	(Paid) Meals,	"	6 65	
Hudson's Bay Co.....	Groceries, coal-oil, soap, etc.,	"	52 25	
Johnston Bros.....	Wood,	"	15 00	
	Carried forward		.....	56,363 38

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	56,363 38
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*			
	***Vote No. 77.—Keep of Prisoners.*—Continued.**			
Kepner, E L	Wood,	Quesnel Lock-up	52 50	
Scott Bros	Bread,	"	6 00	
Wing, C S	Sawing wood,	"	1 50	
City of Revelstoke	Meals,	Revelstoke Lock-up	20 75	
Hume & Co, C B	Towels, soap,	"	2 75	
Bell & Co, R R	Coal-oil, brush,	Salmo Lock-up	8 55	
Hayward, S	Wood,	"	65 00	
Lindow, C	Coal-oil,	"	3 25	
McArthur, E E	Coal,	"	17 28	
McLaren, H W	(Paid) Meals,	"	1 50	
Jupp, P W	(Paid) Wood, coal-oil, meals, etc.,	Savona Lock-up	103 95	
Carr, P	(Paid) Meals,	Sicamous Lock-up	4 20	
McConnell, J J	(Paid) do	"	1 50	
Sicamous Hotel (C P R)	Light and heat,	"	46 20	
Amos, H	Meals,	Sidney Lock-up	1 10	
B C Electric Ry Co	Electric light,	"	5 58	
Denver Power & Light Co	do	Silverton Lock-up	58 65	
MacAulay, A S	Wood,	"	7 00	
Silverton W & Light Co	Water,	"	18 00	
Vachon, E A	(Paid) Meals,	"	17 00	
Wilson, T H	Coal, lime,	"	129 70	
O'Neill, W J	Electric light,	Smithers Lock-up	9 00	
Sargent, Ltd, R S	Coal-oil, broom, towels, soap, etc.,	"	12 00	
Sloan, T G	Wood,	"	50 00	
Austin Grain Produce & Commission Co, Ltd	Potatoes,	South Fort George Lock-up	12 30	
Baird, I B	Wool mitts,	"	2 10	
Burns & Co, Ltd, P	Meat,	"	116 96	
Ewart, C, M D	Medical attendance,	"	3 00	
Finlaison, C S	Wood,	"	243 75	
Fort George Drug Co	Medical supplies,	"	8 35	
Grierson, S	Expressage,	"	1 00	
Hoods, Limited	Groceries and provisions,	"	177 75	
Kennedy, Blair & Co, Ltd	Coal-oil, gold-dust, mops, groceries, etc.,	"	197 35	
McArthur, F	Oilcloth,	"	1 60	
Nor Lbr & Mercantile Co	Enamel pails, oil, gasolene, etc.,	"	4 60	
Nor Telephone & Pwr Co	Electric light,	"	119 00	
Somerton, W	do	"	35 00	
Turner, Beeton & Co, Ltd	Socks, mitts,	"	18 73	
Clemes, A	Electric light, coal, coal-oil, wood, etc.,	Spences Bridge Lock-up	69 10	
Enright, E	(Paid) Meals,	"	3 75	
Blair, W E	(Paid) do coal-oil, wood,	Squamish Lock-up	11 40	
Fraser, J D	Coal-oil,	"	8 25	
Fraser & Carpenter	do	"	2 65	
Munro, A	Wood,	"	6 00	
Nicklin-Disney Co, Ltd	Coal,	"	53 00	
Wing, H A	(Paid) Meals,	"	4 05	
Broughton & McNeil	Coal-oil, lime, beef,	Telkwa Lock-up	17 45	
McRae, J	Scavenging,	"	10 00	
Sargent, Ltd, R S	Groceries, brush, coal-oil,	"	5 45	
Schorn, L	Coal-oil, lime,	"	7 30	
B C Refining Co, Ltd	Disinfectant	Terrace Lock-up	6 41	
DeFontaine, H	Cleaning toilets,	"	18 00	
Guder, A	Wood,	"	30 00	
Little, G	Coal-oil, broom,	"	11 10	
Austin, A	Coal-oil,	Tete Jaune Cache Lock-up	4 25	
Johnston, J F	(Paid) Electric light,	Trail Lock-up	1 50	
Tyson, L F	Electric light,	"	16 50	
Fraser & Bishop	Meals,	Union Bay Lock-up	2 00	
Carter Bros	Wood,	Vananda Lock-up	2 00	
Deighton, A G	Coal-oil,	"	2 75	
Melville, H C	Wood,	"	4 00	
McKimmie, J	do	"	5 50	
Curtis, G F, M D	Medical examinations,	Vancouver Lock-up	20 00	
McKay, D M, M D	do	"	10 00	
Lazarus, C	Meals,	"	61 20	
Leonard's Café	do	"	6 90	
Gee, W	Wood,	Vanderhoof Lock-up	42 25	
Hoy, D	do	"	4 40	
Hunt, G	Scavenging,	"	5 50	
Ingham, H	do and wood,	"	16 75	
Johnston, J M	Coal-oil,	"	1 75	
Keddie, C H	do gasolene, broom,	"	19 25	
Mitchell, E A	Wood alcohol,	"	50	
McGeachy, E E	Coal-oil,	"	1 75	
Nechako Trading Co	do and broom,	"	4 15	
Wood, H N	(Paid) Meals,	"	22 05	
Arbuckle, H, M D	Medical examination,	Vernon Lock-up	5 00	
	Carried forward		.....	56,363 38

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	56,363 38
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*			
	***Vote No. 77.—Keep of Prisoners.*—Concluded.**			
Vernon City Police	Meals,	Vernon Lock-up	58 00	
City Park Restaurant	do	"	2 75	
Taylor, J R	(Paid) Meals,	"	1 05	
Baltimore Lunch	Meals,	Victoria Lock-up	41 85	
King George Café	do	"	75	
Levy's Restaurant	do	"	4 60	
Rivers, F M	Meals,	"	1 25	
St Francis Hotel	do	"	75	
Windsor Grocery Co	Dustbane, soap, broom,	"	3 55	
Dryden, A	(Paid) Meals,	Waldo Lock-up	44 50	
Jones, H	Wood,	"	9 00	
McKay, W	Coal,	"	25 00	
Ross Saskatoon Tdg Co	Electric light, $25; coal-oil, wood, etc., $11.05;	"	36 05	
Waldo Mercantile Co	Pail,	"	1 25	
Crow's Nest Pass Lbr Co.	Electric light, $48; wood, $15;	Wardner Lock-up	63 00	
Lawson, J	Meals,	"	2 25	
Borden Hotel	do	Yale Lock-up	2 50	
Bentley, H	do beds, etc.,	Wyatt Bay Lock-up	5 00	
				39,949 51
	Vote No. 78.—Special Constables.			
Gazley, E	Special Constable, Abbotsford	1 day @ $ 2.50	2 50	
Hatch, C J	do "	1 " 2.50	2 50	
Foggard, J	do Agassiz	1 " 2.50	2 50	
Gordon, S C	Constable, Ayansh, living allowance	7 months 15	105 00	
Boys, S	Special Constable, Albas	2 days 2.50	5 00	
Dolman, E	do "	2 " 2.50	5 00	
Shiel, J W	do Alice Arm and Anyox	2 months 23 d. 75	207 50	
Burr, J L	do Ashcroft	1 day 2.50	2 50	
Elliott, M H	do "	1 " 3	3 00	
Fry, J	do "	1 " 3	3 00	
Hannah, F H	do "	1 " 3	3 00	
Kirk, C	do "	1 " 3	3 00	
Miller, D	do "	1 " 3	3 00	
Scott, W	do "	1 " 3	3 00	
McDonald, W C	do Athalmer	1 month 24 d. 75	135 00	
McIver, M	do "	18 days 80	48 00	
Duff, T	do Atlin	1 " 5	5 00	
Little, F E	do "	..2 months @ $95; 1 day @ $5; 74 hours .50	232 00	
Scarlett, J P	Constable, "	1 month 95	95 00	
Smith, S	Special Constable, "	7 " 60	420 00	
Stokes, J	do "	1 day 5	5 00	
Wilson, J H	do "	2 days 5	10 00	
Pollett, R	do Bamfield	1 " 2.50	2 50	
McCarthy, W F	do Barkerville	25 " 2.50	62 50	
Muir, W	do Baynes	1 " 2.50	2 50	
Mackie, A	do Boswell	½ " 2.50	1 25	
Whiting, H W	do Bridesville	3 " 2.50	7 50	
Muldun, T	do Britannia Beach	2 " 2.50	5 00	
King, R	do Bull River	1 " 2.50	2 50	
Gerow, R	do Burns Lake	1 " 4	4 00	
McMillan, W	do "	1 " 4	4 00	
Backman, E	do Cadorna	1 " 2.50	2 50	
Jones, C G	do Carbon River	1 " 3	3 00	
Eggleshaw, J T	do Carlin	1 " 2.50	2 50	
Handy, S	do Cascade	8 " 3	24 00	
Ryley, C	do Celista	1 " 2.50	2 50	
Codran, R	do Chase	1 " 3	3 00	
Kohoe, J	do "	1 " 2.50	2 50	
Lane, E C	do "	1 " 2.50	2 50	
Martin, J	do "	2 " 2	4 00	
Hibben, F	Constable, Clayoquot	12 months 75	900 00	
Hadley, W H	Special Constable, Clinton	9 days 2.50	22 50	
Ritchie, W S	do "	1 " 2.50	2 50	
Young, W	do "	1 " 2.50	2 50	
Bradshaw, G	do Coal Creek	7 " 2.50	17 50	
McIntee, N	do Cobble Hill	19 " 2.50	47 50	
Gregory, W	do Coombs	1 " 2.50	2 50	
Ainsworth, E	do Corbin	5 months 4 d. 75	385 00	
Addison, N S	do Cranbrook	11 days 2.50	27 50	
Baxter, I	do "	1 " 2.50	2 50	
Major, L	do "	3½ " 2.50	8 75	
McDermot, R	do "	4 " 2.50	10 00	
O'Hearn, W	do "	18 " 2.50	45 00	
Parker, C H	do "	6 " 2.50	15 00	
Walzer, L G	do Crescent Valley		1 00	
	Carried forward		.....	96,312 89

TO WHOM PAID.	FOR WHAT SERVICE.				$ cts.	$ cts.
	Brought forward					96,312 89
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*					
	***Vote No. 78.—Special Constables.*—Continued.**					
Rodgers, F.	Special Constable,	Creston	1	day @ $ 2.50	2 50	
Spiers, J D.	do	"	11	days 2.50	27 50	
Bannerman, J.	do	Cumberland	2	" 2.50	5 00	
Conn, T.	do	"	2	" 2.50	5 00	
Herman, G.	do	"	2	" 2.50	5 00	
Neville, L.	do	"	2	" 2.50	5 00	
Rushford, R.	do	"	2	" 2.50	5 00	
Taulbot, A S.	do	Dewdney	1	" 2.50	2 50	
Loring, E.	do	Doreen	2	" 2.50	5 00	
Baines, G H.	do	Duncan	1	" 2.50	2 50	
Baron, S.	do	"	1	" 2.50	2 50	
Mottishaw, J.	do	"	14	" 2.50	35 00	
Stock, E.	do	"	3	" 2.50	7 50	
Sutton, A.	do	"	12	" 2.50	30 00	
Johnston, W B.	do	Edgewood	8	" 2.50	20 00	
Foisey, L.	do	Elko	16	" 2.50	40 00	
McKee, J.	do	"	17	" 2.50	42 50	
Opie, T.	do	Endako	1	" 4	4 00	
Short, W C.	do	"	1	" 4	4 00	
Milligan, T.	do	Errington	1	" 2.50	2 50	
Lamb, T.	do	Fernie	2	" 2.50	5 00	
Mills, E.	do	"	43	" 2.50	107 50	
McIntyre, A.	do	"	2	" 2.50	5 00	
Reece, C.	do	"	2	" 2.50	5 00	
James, D.	do	Flagstone	1	" 2.50	2 50	
Parsons, T W S	Chief Constable,	Fort St. John, living allowance	12	months 15	180 00	
McLeod, W S	Special Constable,	Fort Steele	6	days 2.50	15 00	
Phillips, G.	do	"	22	" 2.50	55 00	
Fryer, F.	do	Ganges	3	" 2.50	7 50	
Wall, F A.	do	"	2	" 2.50	5 00	
Gibson, J T S.	Constable,	Golden	3	months 75	225 00	
Moore, H C.	Special Constable,	"	9	days 2.50	22 50	
Nichols, C.	do	Greenwood	1	month 75	75 00	
Hance, G.	do	Hanceville	2	days 2.50	5 00	
Hance, P.	do	"	79	" 2.50	197 50	
Barnes, T.	do	Harmer's Ranch	1	" 2.50	2 50	
Walters, H L	do	Harpers Camp	8	" 2.50	20 00	
Cary, N R	do	Hazelton	39	" 2.50	97 50	
Johnson, F C.	do	"	89	" 2.50	222 50	
Lathom, J.	do	"	6	" 4	24 00	
Lavery, H S	do	"	1	" 2.50	2 50	
Macdonald, J.	do	"	5	" 4.	20 00	
Miller, J A.	do	"	5	" 4	20 00	
MacDonald, J A.	do	"	14	" 2.50	35 00	
Sanders, W J.	do	"	2	" 4	8 00	
Sharp, J.	do	"	12	" 2.50	30 00	
Watt, J.	do	"	51	" 2.50	127 50	
Brock, W.	do	Hope	19	" 2.50	47 50	
McRae, D J.	do	"	2	" 2.50	5 00	
Pennie, J.	do	"	14	" 2.50	35 00	
Robinson, W.	do	"	11	" 2.50	27 50	
Arden, A.	do	Hosmer	14	" 2.65	37 10	
Norgrove, J.	do	"	4	months 18 d. 75	345 00	
Bellicini, E G.	do	Houston	1	day 4	4 00	
Frank, J.	do	"	1	" 4	4 00	
Martinson, A.	do	"	1	" 4	4 00	
Slavin, P.	do	"	1	" 4	4 00	
Mansell, T W	Constable,	Hudson Hope, living allowance	12	months 15	180 00	
Shaw, R W	Special Constable,	"	12	days 3	36 00	
Brown, W H.	Special Guard,	Kamloops	7	months 75	525 00	
Burke, J W C.	do	"	3	" 75	225 00	
Buse, F.	do	"	7	" 75	525 00	
Jarvis, T J.	do	"	3	" 75	225 00	
Morrill, J H.	do	"	7	" 75	525 00	
Newton, S.	do	"	3	" 3 d. 75	232 50	
Richards, W A S.	do	"	3	" 28 d. 75	295 00	
Scribner, R J.	Special Constable,	"	7	days 2.50	17 50	
Graham, E C.	do	Kelowna	15	" 2.50	37 50	
Bowen, Mrs J.	Matron,	Keremeos	4	" 2.50	10 00	
Shipman, G H.	Special Constable,	Kimberley	3	months 75	225 00	
Wilson, F M.	do	Kispiox	1	day 2.50	2 50	
Davies, J.	do	Kitwanga	2	days 2.50	5 00	
Ogden, W A	do	Lasqueti Island	1	" 2.50	2 50	
McLean, J.	do	Ladysmith	4	" 2.50	10 00	
Russell, J.	do	"	8	months 80	640 00	
Farmer, J.	do	Lillooet	10	days 2.50	25 00	
Hadley, W.	do	"	6	" 2.50	15 00	
Hayward, W H.	do	"	1	" 2.50	2 50	
	Carried forward					96,312 89

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	Brought forward					96,312 89
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*					
	Vote No. 78.—Special Constables.—Continued.					
Le Marchant, W	Special Constable, Lillooet	2	days @	$2.50	5 00	
Mearon, S	do "	2	"	2.50	5 00	
Russell, J	do "	86	"	2.50	214 50	
Taylor, M	do "	1	"	2.50	2 50	
McPherson, W J	do Lorne Creek	1	"	2.50	2 50	
Olson, A	do "	1	"	3.50	3 50	
Wilson, A	do Lucerne	1	"	5	5 00	
Baillie, W D	do Lytton	2	"	2.50	5 00	
Lucas, F B	do "	1	"	2.50	2 50	
Parker, A	do "	1	"	2.50	2 50	
Trute, A	do "	7	"	2,50	17 50	
Mapes, G	do Mapes	10	"	2.50	25 00	
Wilson, W	do "	10	"	2.50	25 00	
Herchmer, L	do Maryville	1	"	2.50	2 50	
Shipman, G W	do "	9	months	75	675 00	
David, J	do Mayne Island	1	day	2.50	2 50	
Frazer, J	do Merritt	2	days	2.50	5 00	
Pierce, H G	do Metchosin	1	"	2.50	2 50	
Ulph, E B	do "	1	month 17 d.	75	117 50	
Hawkins, E A	do Michel	26	days	2.50	65 00	
Marsh, J	do "	1	"	2.50	2 50	
Parkin, J	do "	4	"	2.50	10 00	
Docksteader, D	do Midway	3	"	2.50	7 50	
Holdway, G T	do McBride	9	"	2.50	22 50	
Ryan, W A	do "	16	"	3	48 00	
Stevenson, W	do "	4	"	2.50	10 00	
Campbell, T	do Nanaimo	2	"	2.50	5 00	
McCuish, N	do "	1	"	2.50	2 50	
Plummer, G S	do "	3	"	2.50	7 50	
Sims, Mrs. J	Matron, "	2	"	2.50	5 00	
Tait, A R	Special Constable, "	1	"	2.50	2 50	
Watson, R W	do "	76	"	2.50	190 00	
Kellett, R	do Nanoose	21	"	2.50	52 50	
Barnes, T	do Natal	10	"	2.50	25 00	
Beech, B A	do "	1	"	2.50	2 50	
Dick, W	do "	1	"	2.50	2 50	
Medeas, Mrs J	Matron, "	1	"	2.50	2 50	
Ferssell, E	Special Constable, Nelson	1	"	2.50	2 50	
King, H W	do "	1	month	80	80 00	
Reid, R	Special Guard, "	12	months	75	900 00	
Robertson, Mrs J	Matron, " 6 days @ $2;	5	days	2.50	24 50	
Smith, A	do "	1	month 14 d.	75	110 00	
Sturgeon, Mrs M A	Matron, " 4 months 12 days @ $20;	4	days	2	95 70	
Limburg, C	Special Constable, "	1	"	2.50	2 50	
Mercer, A	do New Hazelton	5	"	4	20 00	
Smith, P	do "	5	"	4	20 00	
Banton, A R	do New Westminster	18	"	2.50	45 00	
Cave-Browne-Cave, E J	do "	5	"	2.50	12 50	
Coates, J B	do "	9	months 22 d.	75	728 22	
Dominy, T	do "	4	days	2.50	10 00	
Knight, G	do "	1	month 6 d.	75	91 07	
Law, A S	do "	134	days	3	402 00	
Lewis, G F	do "	10	months 15 d.	75	790 17	
Phipps, W S	do "	44	days	2.50	110 00	
Poole, P	do "	148	"	3	444 00	
Saunders, F	do "	12	months	75	900 00	
Sibley, M	do "	82	days	3	246 00	
Sloan, J	do "	68	"	3	204 00	
Venables, P F	do " 8 days at $2.50;	14	"	3	62 00	
Aynsley, J A	do Nicola	1	"	2.50	2 50	
Lundy, J A	do North Bend	2	"	2.50	5 00	
Cote, P	do North Bulkley	2	"	4	8 00	
David Johnny (Indian)	do "	2	"	4	8 00	
Watson, R W	do Northfield	1	"	2.50	2 50	
Gay, J B	do North Island	4	"	2.50	10 00	
Scribner, V M	do Ocean Falls	7	"	2.50	17 50	
Enæas (Indian)	do 150-Mile House	3	"	2.50	7 50	
Hadley, W H	do "	6	"	2.50	15 00	
Hamilton, T	do "	11	"	2.50	27 50	
La Plant, E	do "	6	"	2.50	15 00	
McKinley, J	do "	10	"	2.50	25 00	
Peraux (Indian)	do "	3	"	2.50	7 50	
Hurst, A	do Parksville	2	"	2.50	5 00	
Taylor, E	do Pender Harbour	6	months 20 d.	75	500 00	
Quain, J	do Port Alberni	5	days	3	15 00	
Steves, L B	do Port Clements	2	"	2.50	5 00	
Paulson, M	do Port Essington	10	hours	.40	4 00	
Sharp, J	do "	1	month 2 d.	75	79 90	
	Carried forward					96,312 89

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	96,312 89
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	***Vote No. 78.—Special Constables.*—Concluded.**		
Collinson, J M	Special Constable, Port Nelson ... 5 months @ $75	375 00	
Brentzen, H	do Port Simpson ... 1 day 2.50	2 50	
Watkinson, S J	do " ... 8 days 2.50	20 00	
Duncan, J G	Constable, Pouce Coupe, living allowance ... 12 months 15	180 00	
Palmer, F	Special Constable, " ... 6 days 2.50	15 00	
Clarke, W H	do " ... 3 " 2.50	7 50	
Mansell, W H	do Princeton ... 10 months 75	750 00	
Brethour, C D	do Prince Rupert ... 12 days 75	29 03	
Bijold, J	do Quathiaski Cove ... 2 " 2.50	5 00	
Lamont, T	do " ... 1 " 2.50	2 50	
Pidcock, R	do " ... 4 " 2.50	10 00	
Taylor, F	do Qualicum Beach ... 1 " 2.50	2 50	
Moreau, E	do Queen Charlotte City ... 3 " 2.50	7 50	
Elmslie, J R	do Quesnel ... 10 " 2.50	25 00	
Michelle, —	do " ... 11 " 2.50	27 50	
McCallum, J	do " ... 45 " 2.50	112 50	
Tommy Petel	do " ... 5 " 2.50	12 50	
Thomas, G W	do Revelstoke ... 1 " 3	3 00	
McKinley, D	Special Guard, Saanich Prison Farm ... 11 " 2.50	27 50	
Ross, E D	do " ... 21 " 2.50	52 50	
Ward, A E	do " ... 31 " 2.50	77 50	
Bell, F W	Special Constable, Salmo ... 14 " 2.50	35 00	
Gays, A	do Salmon Arm ... 1 " 2.50	2 50	
Colver, S A	do Shuswap ... 1 " 2.50	2 50	
Carr, P	do Sicamous ... 26 " 2.50	65 00	
McConnell, J J	do " ... 5 " 2.50	12 50	
Brennan, J R	do Sidney ... 6 " 2.50	15 00	
Geernaert, O W	do " ... 2 months 9 d. 75	171 78	
Hatch, C J	do " ... 6 days 2.50	15 00	
Quinn, C	do " ... 13 " 2.50	32 50	
Bristol, G H	do Skeena Crossing ... 4 " 4	16 00	
D'Eggville, R	do " ... 2 " 2.50	5 00	
Jacobs, E M	do " ... 2 " 4	8 00	
Carr, W J	do Smithers ... 4 " 4	16 00	
Finnigan, F W	do " ... 2 " 4	8 00	
Henry, J	do " ... 4 " 3	12 00	
Henry, W S	do " ... 3 " 4	12 00	
McCabe, A	do " ... 1 " 4	4 00	
Robinson, D	do " ... 1 " 4	4 00	
Watt, J	do " ... 6½ " 4	26 00	
Kirchin, W	do Sooke ... 1 month 24 d. 75	135 00	
Campbell, S F	do South Fort George ... 20 days 3	60 00	
Erickson, P E	do " ... 2 " 3	6 00	
Forrest, A E	do " ... 7 " 3	21 00	
Jail (Indian)	do " ... 3 " 2.50	7 50	
Shaw, J	do " ... 8 " 3	24 00	
McKay, J	do Stewart ... 1 " 4	4 00	
Chambers, A	do Vancouver ... 31 " 2.50	77 50	
Cocking, J H	do " ... 18 " 2.50	45 00	
Curley, J A	do " ... 4 months 75	300 00	
Gilbert, C W	do " ... 4 " 75	300 00	
Hains, B	Matron, " ... 1 day 2.50	2 50	
Lavery, H S	Special Constable, " ... 32 days 75	78 83	
Hood, H	do " ... 3 " 2	6 00	
Ostrom, A D	do " ... 10 " 2.50	25 00	
Polley, R	do " ... 31 " 2.50	77 50	
Sullivan, J L	Services *re* Vancouver election inquiry, Vancouver ... 42 " 6	252 00	
Walker, W	Special Constable, Vancouver ... 1 month 13 d. 75	107 50	
Clarkson, F	do Vananda ... 6 months 85	510 00	
Sims, C D	do Vernon ... 13 days 2.50	32 50	
Christy, T H	do Victoria ... 31 " 2.50	77 50	
Ferris, Mrs I J	Matron, " ... 12 " 2.50	30 00	
de Macedo, C	Special Constable, " ... 1 " 2.50	2 50	
Paunder, M	do " ... 1 " 2.50	2 50	
Phillips, J J	do " ... 30 " 2.50	75 00	
Collins, A W	do Waldo ... 1 " 2.50	2 50	
Smith, L M	do " ... 3 " 2.50	7 50	
Grundy, W	do Walhachin ... 1 " 2.50	2 50	
Duncan, T H	do Wardner ... 19 " 2.50	47 50	
English, J W	do " ... 13 " 2.50	32 50	
Hannant, G	do Wasa and Ta Ta ... 1 " 2.50	2 50	
Richards, W	do Wellington ... 1 " 2.50	2 50	
Graham, E C	do Westbank ... 1 " 2.50	2 50	
Hawkes, G	do Wycliffe ... 1 " 2.50	2 50	
Ellison, C	do Yale ... 3 " 2.50	7 50	
Pinkerton National Detective Agency	Services of operatives ...	90 00	
			21,287 80
	Carried forward ...	.....	117,600 69

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	117,600 69
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 79.—Transport of Police Officers, Constables, and Prisoners.		
Adam, G H	Constable, transportation, meals, beds, livery-hire, etc., for self and prisoners.	131 20	
Aitken, F E	Chief Constable, " " "	220 70	
Ainsworth, E	Constable, " " "	181 90	
Aynsley, W C	do " " "	46 30	
Badman, P	do " " "	180 35	
Banasky, G D	do " " "	100 10	
Barber, C G	do " " "	40 90	
Bell, G	do " " "	19 00	
Bell, G W	do " " "	7 20	
Bell, J J	do " " "	45 95	
Bell, W	do " " "	293 10	
Birchall, K F	do " " "	130 20	
Black, J T	Chief Constable, " " "	445 55	
Blair, W E	Constable, " " "	126 40	
Bleakley, D E	do " " "	5 00	
Blue, G S	do " " "	396 05	
Boardman, J	do " " "	182 85	
Bourne, J	do " " "	318 95	
Bowen, R W	do " " "	529 85	
Brennan, J R	do " " "	2 00	
Brethour, C D	do " " "	95 15	
Brickland, H E	do " " "	148 05	
Broughton, F	do " " "	231 55	
Brown, L A	do " " "	5 00	
Cameron, C	Chief Constable, " " "	78 55	
Campbell, C	Superintendent, " " "	49 90	
Carr, P	Constable, " " "	99 80	
Clarkson, F	do " " "	25 65	
Cline, S	do " " "	24 85	
Collins, A W	do " " "	1 00	
Condon, M J	do " " "	120 20	
Corcoran, J	Guard, " " "	5 35	
Cox, D G	Clerk and Constable, " " "	13 75	
Curley, J A	Constable, " " "	87 20	
Davies, J	do " " "	5 60	
Deane, J R C	do " " "	84 45	
D'Egville, R	do " " "	4 10	
Docksteader, W H	do " " "	423 95	
Doolittle, C E	do " " "	107 45	
Dryden, A	do " " "	343 40	
Duncan, G J	do " " "	555 95	
Duncan, T H	do " " "	270 05	
Dunwoody, W R	Chief Constable, " " "	715 34	
Eggleshaw, J T	Constable, " " "	6 00	
Emmott, F N	do " " "	214 00	
English, J W	do " " "	91 45	
Enright, E	do " " "	51 95	
Evans, C F	do " " "	395 35	
Fairbairn, A	do " " "	52 15	
Farr, A	do " " "	192 30	
Ferris, Mrs. I A	Matron, " " "	61 75	
Forrester, W C	Constable, " " "	204 60	
Fowler, W R	do " " "	159 70	
Fraser, J A	Chief Constable, " " "	62 20	
Freeman, J A	Constable, " " "	226 20	
Fryer, F	do " " "	469 30	
Gammon, E	Chief Constable, " " "	665 50	
Gay, J B	Constable, " " "	10 00	
Geernaert, O W	do " " "	16 45	
Gibson, J T S	do " " "	163 30	
Gilbert, C W	do " " "	151 15	
Gordon, R	do " " "	70 05	
Gordon, S C	do " " "	9 00	
Gorman, M	do " " "	406 50	
Graham, E C	do " " "	131 40	
Green, J E	Chief Detective, " " "	444 25	
Greenwood, G H	Constable, " " "	16 90	
Greenwood, W	do " " "	28 55	
Gunn, G M	do " " "	275 95	
Hadley, W H	do " " "	65 20	
Hamilton, T	do " " "	26 50	
Hance, P	do " " "	212 25	
Hannay, J	do " " "	170 35	
Hardiman, J W	do " " "	86 40	
Harris, H V	do " " "	903 40	
Hatch, C J	do " " "	2 65	
Hawkes, G	do " " "	1 50	
	Carried forward	.....	117,600 69

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	117,600 69
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 79.—Transport of Police Officers, Constables, and Prisoners.—Continued.		
Hazelton, D A	Constable, transportation, meals, beds, livery-hire, etc, for self and prisoners.	144 80	
Hawkins, E A	do " " "	6 80	
Helmsing, H F	do " " "	32 50	
Henley, W R	do " " "	101 80	
Herchmer, T	do " " "	1 50	
Hibbin, F	do " " "	127 35	
Howieson, G H	do " " "	3 40	
Huggins, H	do " " "	41 20	
Hughes, H	do " " "	55 15	
Hurst, A	do " " "	50	
Hutchings, J M	do " " "	41 00	
James, D	do " " "	2 80	
Johnson, G A	do " " "	13 25	
Johnston, J F	do " " "	845 60	
Jupp, P W	do " " "	31 40	
Kelly, J	do " " "	193 75	
Kerr, C	do " " "	97 30	
Kier, W	do " " "	86 65	
King, H W	do " " "	18 25	
King, R	do " " "	94 80	
Kirchin, W	do " " "	4 50	
Laird, W	do " " "	32 95	
Lavery, H S	do " " "	129 40	
Lewis, V	do " " "	276 60	
Limburg, C	do " " "	3 20	
Lines, W H	do " " "	111 05	
Lister, F H	do " " "	32 60	
Loring, E	do " " "	8 05	
Macdonald, James	do " " "	2 30	
Macdonald, John	do " " "	427 00	
Mainwaring, H D	do " " "	83 10	
Mansell, H H	do " " "	210 75	
Mansell, T A	do " " "	641 60	
Mapes, G	do " " "	23 25	
Markland, F D	do " " "	229 15	
Marshall, S	do " " "	449 85	
Mason, T G	do " " "	112 50	
Matthews, R	do " " "	127 90	
Mead, J	do " " "	571 25	
Michelle, —	do " " "	27 50	
Miller, J A	do " " "	2 05	
Mills, R F	do " " "	25 55	
Minty, A C	Chief Constable, " " "	312 75	
Moore, H C	Constable, " " "	6 00	
Moss, C H	Clerk and Constable, " " "	47 25	
Mottishaw, J	Constable, " " "	5 05	
Munro, J	Warden, " " "	134 20	
Mustart, A D I	Constable, " " "	53 30	
MacLean, A D	do " " "	31 65	
McConnell, J J	do " " "	55 60	
McDonald, D	do " " "	18 75	
McDonald, D A	do " " "	59 40	
McDonald, R	do " " "	74 75	
McDonald, W C	do " " "	6 00	
McGuffie, H C	do " " "	177 20	
McIver, M	do " " "	7 00	
McKinley, J W	do " " "	9 50	
McLaren, H W	do " " "	197 35	
McMynn, W G	Warden, " " "	26 35	
McNeely, A D	Constable, " " "	6 00	
McNeill, A	do " " "	598 85	
McPherson, W J	do " " "	1 00	
Nichols, C	do " " "	113 30	
Norgrove, J	do " " "	95 60	
North, S	do " " "	134 85	
O'Connor, C	do " " "	169 40	
O'Halloran, F F	do " " "	38 55	
Owen, W	Assistant Inspector, " " "	741 43	
Owens, R	Constable, " " "	36 10	
Pallant, A C	do " " "	48 55	
Parsons, T W S	Chief Constable, " " "	147 80	
Patten, R W	Constable, " " "	33 60	
Phillips, G	do " " "	7 00	
Pittendrigh, G B	do " " "	332 30	
Prescott, W	do " " "	30 00	
Quinn, F C	do " " "	2 15	
Rayner, R W	do " " "	35 80	
	Carried forward	.....	117,600 69

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	117,600 69
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 79.—Transport of Police Officers, Constables, and Prisoners.—Continued.		
Renner, J	Constable, transportation, meals, beds, livery-hire, etc., for self and prisoners.	393 35	
Richards, C S	do " " "	247 00	
Richards, W	do " " "	1 00	
Russell, J	do " " "	110 65	
Scarlett, J P	do " " "	344 45	
Sharp, J	do " " "	19 65	
Sheil, J W	do " " "	124 15	
Shipman, G	do " " "	240 50	
Simpson, J	do " " "	560 30	
Smith, J M	do " " "	298 45	
Smith, S	do " " "	1 50	
Smith, T	Chief Constable, " " "	92 70	
Somerville, T	Constable, " " "	158 30	
Spiller, W	do " " "	218 25	
Sproule, G H	do " " "	120 05	
Stanfield, G	do " " "	437 20	
Stephenson, D	Chief Constable, " " "	14 40	
Stephenson, A T	Constable, " " "	42 55	
Stewart, W B	do " " "	132 35	
Stone, A W	do " " "	13 00	
Sturgeon, Mrs M A	Matron, " " "	5 60	
Sutherland, R J	Chief Constable, " " "	353 30	
Sutton, A	Constable, " " "	18 50	
Tame, C	do " " "	73 25	
Tait, A	do " " "	91 15	
Tait, A R	do " " "	13 25	
Taylor, E	do " " "	28 75	
Taylor, H	Chief Constable, " " "	335 15	
Taylor, J R	Constable, " " "	87 00	
Tester, P N	do " " "	61 50	
Turnbull, A T	Warden, " " "	50	
Vachon, E A	Constable, " " "	57 45	
Venables, P F	do " " "	80	
Walker, W	do " " "	18 90	
Walker, W A	do " " "	1 10	
Walsh, J	do " " "	233 25	
Walters, H L	do " " "	63 00	
Weatherbee, H L	do " " "	30 65	
Webster, R	do " " "	14 00	
Welsby, G	do " " "	558 85	
Whiting, H	do " " "	5 00	
Williams, J A	do " " "	450 45	
Wing, H A	do " " "	126 25	
Wood, H N	do " " "	76 65	
Wyatt, H R	do " " "	57 30	
Wynn, T G	Inspector, " " "	509 03	
Yates, A	Constable, " " "	77 10	
Adams, R N	Livery-hire	2 00	
Adamson, W	Meals	14 45	
Alert Bay Saw Mill Store	Groceries and provisions	12 40	
Alsgard, M A	Auto-hire	7 00	
Angle, W	Launch-hire	2 00	
Antwine, Chief	Livery-hire	3 00	
Armishaw, J B	Team-hire	8 00	
Armstrong, A	Auto-hire	1 50	
Armstrong, H N	do	6 50	
Armstrong, W J	Livery-hire	78 50	
Athalmer Auto Livery	Auto-hire	40 00	
Auto Trans Co (Nanaimo)	do	10 50	
Avis, C E	Meals	5 00	
Baker, T	Auto-hire	3 00	
Baltimore Lunch	Meals	1 05	
Bannerman, J	Auto-hire	68 00	
Banting, W J	Meals	10 55	
Barbour, C H	Bed and meals	2 25	
Barnes, G	Auto-hire	48 00	
Barry, T E	do	2 50	
Bassett, F H	Team-hire	4 00	
Baxter, R W	Auto-hire	71 50	
Beaton & Hoops	Livery-hire	22 00	
Bennet's Transfer	Cartage	10 00	
Berrigan, M	Horse-hire	20 00	
Birnie, A	Auto-hire	6 00	
Bishop, C R	Launch-hire	12 50	
Bittancourt, A R	do	21 00	
Black, P	Meals and beds	14 00	
Blackstock Bros	Horse-hire	3 00	
	Carried forward	....	117,600 69

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	117,600 69
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 79.—Transport of Police Officers, Constables, and Prisoners.—Continued.		
Blue Funnel Motor Line.	Auto-hire	2 50	
Botterill, M.	do	272 50	
Bowden, H	Rig-hire	2 00	
Boyd, A E	Auto-hire	4 00	
Boyd Estate, J	Groceries, hardware, feed, etc	24 35	
Boyd, W.	Launch-hire	13 00	
Brewer, J C	Auto-hire	85 90	
Brewster Transport Co.	Livery-hire	27 50	
B C Electric Ry Co.	Transportation	251 75	
B C Packers' Association	Groceries and provisions	9 90	
Brown, C W	Livery-hire	18 00	
Brown, J	Cartage	65	
Buckless, F C	Auto and team hire	63 00	
Burden, E.	Auto-hire	30 00	
Burns, M H.	Livery-hire	125 50	
Byers, W D.	Launch-hire	4 00	
Cameron, J H.	Auto-hire	5 00	
Campbell, J.	Ferry trips	7 50	
C P Railway Co.	Transportation, meals, berths, etc	704 11	
Cannon, J.	Launch-hire	5 00	
Carlton Café	Meals	42 65	
Castle, M.	Boat-hire	1 50	
Charlston, J M.	Livery-hire	4 00	
City Cab Co, Nelson.	do	10 25	
City Livery, Cranbrook.	do	107 00	
City Taxi Co, Nanaimo.	Auto-hire	148 00	
Clarke, L.	do	8 00	
Clayton, D.	Launch-hire	348 00	
Columbia Hotel, Golden.	Room and meals	9 50	
Cook, S.	Provisions	3 15	
Cottrell, H V	Auto-hire	3 00	
Coutts, H	do	50 00	
Craig, D	do	173 50	
Crawford, W J	Transportation and cartage	7 50	
Creech, R	Auto-hire	12 00	
Cunningham & Son.	Provisions, cartridges, blankets, socks, etc	55 40	
Des Brisay, M.	Launch-hire	15 00	
Dillabough, S.	do	20 00	
Doneau, B.	Livery-hire	2 00	
Duncan Garage.	Auto-hire	410 00	
Dunlop, R.	Livery-hire	40 00	
Dunsmuir Auto Service.	Auto-hire	174 75	
Elford Boat Co, Ltd.	Launch-hire	8 50	
Elliott, M H.	Auto-hire	10 00	
Ellis, W	Horse-hire	2 00	
Emde, E C.	Auto-hire	15 00	
Emery, D.	Livery-hire	4 00	
Engstrom, R.	Launch-hire	12 00	
Esterbrook, E.	Room and meals	63 50	
Fahrenkoph, J J.	Team-hire	7 00	
Fairbairn, J.	Stage fare	3 00	
Farwell, G W.	Horse-hire	3 00	
Fisher, G.	Livery-hire	165 50	
Ford Taxi Service.	Auto-hire	10 00	
Fort Steele Garage Co.	do	16 00	
Fortier, A	do	2 50	
Foulgner, I.	Launch-hire	4 00	
Fraser & Bishop.	Livery-hire	3 00	
Fry, J.	Auto-hire	200 00	
Garrison, W S.	Livery-hire	13 00	
Gerry, W B.	Auto-hire	5 00	
Gibbins, A.	Assistance on police launch ..... 3 days @ $2.50	7 50	
Gonsalves, A.	Launch-hire	37 00	
Goodman Supply Co.	Steel traps, pans, plates, etc	5 00	
G T P Railway Co.	Freight	6 27	
G T P SS Co	Transportation	371 35	
Guss, N O.	Hire of gasolene speeder	10 00	
Halliday, F.	Assistance on police launch	2 50	
Halliday, J H.	Auto-hire	6 50	
Hamilton, A C.	Livery-hire	16 00	
Hamilton, J	do	2 50	
Harbor Shipping Co, Ltd	Launch-hire	70 00	
Harman, A T.	Auto-hire	88 00	
Hargitt, J A.	do	6 00	
Hatfield, A S.	do and phone message	18 30	
Hayes, J H.	Team-hire	6 00	
Heal & Glover.	Gasolene	2 75	
	Carried forward	.....	117,600 69

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	117,600 69
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 79.—Transport of Police Officers, Constables, and Prisoners.—Continued.		
Henderson, F E	Auto-hire	2 50	
Hill, E A	do	10 00	
Hill, S J	Launch-hire	15 00	
Hodson, T	Auto-hire	6 00	
Homewood, E	Launch-hire	12 00	
Hoskin, E A	Livery-hire	80 00	
Hosmer Livery	do	2 50	
Hoy, D	do	11 00	
Hudson, T	Auto-hire	12 50	
Hudson's Bay Co	Provisions	1 90	
Huson, S	Overhauling engine on police-launch, $12; assistance, $7.50	19 50	
Imperial Oil Co, Ltd	Distillate, gasolene, polarine, freight, etc	113 02	
Ingham Bros	Team-hire	2 50	
Inland Express Co	Fares	91 00	
Ives, S	Launch-hire	15 00	
Jaynes, W R	do	10 00	
Jenkins & Co, M	Livery-hire	34 50	
Johnson, H	Launch-hire	5 00	
Johnston, W B	Horse-hire	24 00	
Johnston Bros	Livery-hire	1 50	
Jones, S	Rooms and board	126 00	
Keeling, W	Transportation of constable and effects	10 30	
Kelleher, C	Launch-hire	10 00	
Kelowna West Bnk Ferry	Fares	7 50	
Kergin, H S	Launch-hire	11 00	
Kindred, W E	Auto-hire	5 00	
King Edw Hotel, Victoria	Rooms and board	267 45	
Knichel, C	Boat-hire	5 00	
Knight, O J	Stage fares	6 50	
Knutsen, M	Launch-hire	12 00	
LaPlante, E	Team-hire	20 00	
Legault, A	Auto-hire	10 00	
Lewis, P	do	59 50	
Lonsdale, F	Hire of gasolene speeder	6 00	
Mack, E J	Livery-hire	185 00	
Mainland Trans Co, Ltd	Freight and cartage	10 00	
Marquart, P	Auto-hire	8 00	
Merryfield, W	Room and board	6 50	
Minton & Bean	Auto-hire	8 00	
Monte Creek Trading Co	Livery-hire	2 00	
Moore, F	Auto-hire	256 25	
Moraes, J	Launch-hire	20 00	
Muir, J K	Livery-hire	9 00	
Murphy, F	Auto-hire	185 50	
MacKay, J	do	15 00	
McBride Trading Co	Provisions	29 05	
McCannell & Son, J	Livery-hire	40 50	
McColl, G P	Provisions	3 35	
McDonald, C J	Launch-hire	8 00	
McDonald, W J	Auto-hire	2 00	
McIver & Campbell	do	5 00	
McKay, J L	Livery-hire	7 00	
McLay, T R	Launch-hire	36 00	
McNeill, J W	Horse-hire	1 50	
McRae, J	Livery-hire	30 00	
Nechacko Stables	do	11 50	
Neil & Cryderman	do	78 50	
Nelson, A	do	65 50	
Nelson, I H	Meals	3 00	
Nelson Transfer Co	Livery-hire	81 75	
Newcombe, R L	Launch-hire	17 50	
Newman, C	Services on police launch	2 50	
Nichols, C	Meal	50	
Noble, W D	Provisions	6 75	
Nowell, T	Services on police launch, 7 days at $2.50	17 50	
Pacific Cartage Co	Cartage	7 00	
Palace Livery, Revelstoke	Livery-hire	155 50	
Parmley, R	do	81 00	
Peck, L A	Auto-hire	1 00	
Perry Bros	Horse-hire	140 00	
Petel, T	do	7 50	
Petrie, S S	Launch-hire	20 00	
Philpott's Café	Meals	70	
Pidcock, G H	Launch-hire	80 00	
Pinkerton Nat Det Agcy	Expenses of operatives	67 79	
Plaskett, D	Livery-hire	2 50	
Pollard, C	Auto-hire	35 00	
	Carried forward	.....	117,600 69

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	117,600 69
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	***Vote No. 79.—Transport of Police Officers, Constables, and Prisoners.*—Concluded.**		
Powell River Co, Ltd	Launch-hire and haulage	23 00	
Priestley, A F	Provisions	2 35	
Prince Rupert Auto Co	Auto-hire	8 00	
Queen, J	Ferrying	2 00	
Ragan, H	Provisions	8 25	
Rawlinson & Glaholm	do	3 15	
Relf, E	Auto-hire	14 00	
Robin, J	Launch-hire	12 00	
Rocky Mountain Livery	Auto and livery hire	39 50	
Ross, H H	Auto-hire	7 00	
Roxborough, J	Livery-hire	25 00	
Ruddy & McKay	do	45 00	
Russell, B J	Launch-hire	8 00	
Russell, J	Horse-hire	3 00	
St Regis Hotel, Vanc	Room and meals	3 25	
Sargent, Ltd, R S	Provisions	10 00	
Schulz, L	Auto and livery hire	56 00	
Shotton, H	Auto-hire	2 50	
Smith, R M	Fares	12 10	
Smith, W J	Rooms and meals	6 00	
Spiers, J D	Livery-hire	74 50	
Spratt, J	do	18 00	
Taenhause, W G	Auto-hire	8 00	
Tallmire, J	do	5 00	
Taylor, John	Launch-hire	20 00	
Taylor, James	Auto-hire	3 00	
Trenchard, C C	Stage fare	3 00	
Tupper, J A	Livery-hire	76 50	
Turncross Livery	Auto-hire	6 50	
Ulrich, S	Board and room, sleigh-hire	19 50	
Underwood, A E	do	10 00	
Union Steamship Co, Ltd	Transportation	446 05	
Unwin, L	Auto-hire	7 00	
Urquhart, J C	Livery-hire	167 50	
Vanc Auto & Taxi Service	Auto-hire	157 00	
Victoria Transfer Co	Livery-hire	38 00	
Ward, C	Auto-hire	70 00	
Wardell, J	Livery-hire	15 00	
Watkinson, A J	Launch-hire	15 00	
Weeks Bros	Auto-hire	10 00	
Whannuck, E	Services on police launch, 3 days @ $2.50	7 50	
Whitman, M & J W	Launch-hire	15 00	
Williams, C F	Auto-hire	4 00	
Wilson, J	Horse-hire	80 00	
Wood, W	Livery-hire	129 50	
Woodley, E	Auto-hire	6 00	
Wyatt Bros	Tent	5 00	
Young, T W	Spark-coil for speeder	6 00	
Sullivan, J L	Travelling expenses, board and room *re* Vancouver Election (1916) Inquiry	316 00	
			38,947 04
	Vote No. 80.—Medical Officers at Gaols (Fixed Allowances).		
Borden, L E, M D	Medical attendance at Nelson Gaol, 8 months @ $400	266 68	
Burris, J S, "	do Kamloops Gaol, 12 " 400	400 00	
Helmcken, J D, "	do Saanich Prison Farm, 12 " 500	500 00	
Hoyes, W T, "	do Oakalla Prison Farm, 12 " 620	619 96	
Rose, W O, "	do Nelson Goal, 4 " 400	133 32	
Walker, R E, "	do New Westminster Gaol, 12 " 500	499 92	
			2,419 88
	Vote No. 81.—Inspection of Licensed Premises (Allowances to Deputies).		
Aitken, F E	Services as Deputy Inspector, 12 months @ $10	120 00	
Black, J T	do 12 " 10	120 00	
Cameron, C	do 12 " 10	120 00	
Dunwoody, W R	do 5 " 10	50 00	
Fraser, J A	do 12 " 10	120 00	
Simpson, J	do 12 " 10	120 00	
Smith, T	do 12 " 10	120 00	
Sutherland, R J	do 12 " 10	120 00	
Stephenson, D	do 7 " 10	70 00	
Welsby, G	do 12 " 10	120 00	
			1,080 00
	Carried forward	.....	160,047 61

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		160,047 61
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 82—Allowances to Sheriffs (Fixed Allowances).		
Armstrong, T J	Sheriff's allowance, New Westminster, 12 months	750 00	
Hall, J D	do Vancouver, 12 "	750 00	
Kerman, H C	do Grand Forks, 12 "	600 00	
Law, W J	do Revelstoke, 12 "	600 00	
Moore, H C	do Golden, 12 "	600 00	
Peters, E S	do Cariboo, 12 "	750 00	
Richards, F G	do Victoria, 12 "	750 00	
St Denis, D	do Nelson, 6 "	375 00	
Shirley, J	do Prince Rupert, 12 "	600 00	
Trawford, C J	do Nanaimo, 12 "	600 00	
Tuck, S P	do Nelson, 6 "	375 00	
Wood, W F	do Kamloops, 12 "	750 00	
			7,500 00
	Vote No. 83.—Constitutional Litigation and General Law Costs.		
Baird, W J	Legal services *re* Railway Passengers' Assurance Co. and London Guarantee & Accident Bond	699 50	
Bodwell & Lawson	do "Provincial Elections Act"	15 00	
Bradshaw & Stacpoole	do opposing application for habes corpus	33 05	
Bullock-Webster, W H	do Vancouver Election (1916) Inquiry and Rex *v.* Lim Dim	576 86	
Burns, W E	do North West Trust Co. directors	50 00	
Cassidy, R	do Rex *v.* Brew	75 00	
Cochrane & Ladner	do collection of note made by Bankhead Orchard Co., Ltd.	12 18	
Davie, C F	do Johnson Street Arbitration	127 90	
Edmonds, H L	do District Lots 92 and 97, N.W.D.	636 99	
Elliott, Maclean & Shand-	do conferences *re* Various Acts and *re* M. M. Boyd Estate	1,305 05	
Fisher, W E [ley	do Rex *v.* E. A. Hawley	20 50	
Fillmore & Todrick	do subdivision part D.L. 1316, Map 2304, N.W.D.	167 70	
Hamilton & Wragge	do Lot 863, Crown grant, Deputy Minister of Lands	10 69	
Herchmer & Martin	do Rex *v.* S. H. Bohart	94 35	
Lucas & Lucas	do Rex *v.* Yee Wah, 1519-16, "Plans cancellation Act" and part of District Lot 558, West Vancouver	322 00	
Maitland, R L	do Rex *v.* Ferguson	51 10	
Mecredy, T T	do " Pattinson and Stevens	20 00	
Moffatt, F C	do W. J. Moore, deceased	20 00	
Moore, H W R	do drafting and advising *re* "Referendum Act," "Provincial Elections Amendment Act"; "Woman Suffrage Act"; "Military Forces Voting Act"	250 00	
Moresby, O'Reilly & Lowe	do Rex *v.* Goucher	65 65	
McKay & O'Brian	do Rex *v.* Ethans, Estate Atkins, Fred Boyle (deceased) Estate; Rex *v.* Reifman; Rex *v.* Bazzani; Emerson Lumber Co. *v.* Price Ellison and Haslam *et al.*; Mackenzie *v.* McDougall; Reynolds (Rex) *v.* A. T. Raspberry, Evans & Hastings, Ltd., Interior Publishing Co., J. T. Scott, estreat of bail bond	788 72	
MacNeill, A H	do Rowe *v.* B.C. Trust Corporation and J. Woolf; Bowser *v.* Railway Passengers' Assurance. Co.; Smith *v.* London Guarantee & Accident Co.	136 90	
McPhillips, L G	do Kitsilano Indian Reserve, investigating question of title	900 00	
McPhillips & Smith	do Attorney-General of Canada *v.* Ritchie Contracting & Supply Co. *et al.*, Kitsilano Indian Reserve Arbitration	1,821 79	
Ritchie, J A	do Attorney-General of Canada *v.* Ritchie Contracting & Supply Co. *et al.*, Boyd *et al. v.* Attorney-General of B.C.	700 00	
Ritchie, W B A	do Bowser *v.* Railway Passengers' Assur. Co. *re* "Constitution Act"	155 00	
Taylor, W J	do Brewster *v.* Attorney-General	250 00	
Wilson, P H	do "	36 05	
Wood, H S	do Rex *v.* Sam	10 00	
Allan, J R	Services as Expert Real Estate witness *re* Kitsilano Indian Reserve Arbitration	250 00	
Austin, A E	do " " "	200 00	
Blygh, E	do Stenographer and transcripts *re* "	211 50	
Bridgman, A W	Services *re* Johnson Street Arbitration	50 00	
Bohart, S H	Witness fee and expenses *re* Rex *v.* Bohart (appeal)	3 50	
Botterill, M	Auto-hire for witnesses in Rex *v.* Yee Wah (appeal)	45 00	
Cantelon, W A	Expenses to Victoria at request of Hon. Attorney-General to discuss legislation	10 00	
Carrelli, J	Services as Interpreter in Rex *v.* Bazzani	4 00	
Elliott, J, B C L S	Professional services preparing plans, etc., for use of counsel in *re* "Plans Cancellation Act" and part of D.L. 1316, N.W.D.	350 70	
English, J W	Witness fee and expenses in Rex *v.* Bohart	15 55	
Jackson, H S	do " "	3 80	
Leonard, H	do " *v.* Bazzani	20 70	
Maimette, P	Making plans *re* Kitsilano Reserve	20 00	
McFarland, J W	Services as Adviser as Real Estate Expert *re* Kitsilano Indian Reserve Arbitration	580 00	
Reeve, D	do " " "	200 00	
Stewart, A	Obtaining information *re* trusts and estates in connection with action to recover bond of $50,000 *re* Smith *v.* London Guarantee Co.	20 00	
Unwin, M	Services as Stenographer and transcripts of testimony *re* Johnson Street Bridge	66 30	
Walsh, J	Witness fees and expenses in Rex *v.* Bohart	14 40	
Pay-list	do " " *re* Vancouver Election (1916) Inquiry	267 00	
			11,684 43
	Carried forward		179,232 04

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	179,232 04
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 84.—Miscellaneous.		
Abbott, Macrae & Co	Consideration for conveyance by the Vancouver-Nanaimo Coal Mining Co., Ltd., procured to clear title of registered owners	50 00	
Adams, J M	Flash-light batteries	4 80	
Adelberg, P H	Oats	17 00	
Alert Bay Saw Mills Store	Dry cells, copper paint, turps, white lead, etc	15 45	
Allbutt, F	Services as Stenographer, transcripts, etc	726 40	
American Prison Assn	Annual dues	5 00	
Anderson, G	Services and expenses, obtaining evidence against J. Goodman for illegally selling liquor	80 50	
Angell Hardware Store	Battery	50	
Armstrong, F J	Exchange on remittances wired to Montreal *re* Rex *v.* Ferrante	1 30	
Austin, A	Hay and oats	20 68	
Baker, C G	Hire of furniture for County Court, Penticton	20 00	
Baker, P	Services as Stenographer	6 50	
Barber, C G	(Paid) Batteries and expressage	2 80	
Baldu, E	Services, assisting in packing body of J. Linquist, drowned	3 50	
Barjuk, S	do " "	3 50	
Baxter, R W	Auto-hire	1 50	
Beaver Transfer Co	Freight	50	
Bhagat Singh	Expenses, locating Deva Singh	5 00	
Bickle, E	Services and expenses *re* A. Rabison	6 89	
Black, D	Medical examinations *re* Rex *v.* Reber	5 00	
Blair, W E	(Paid) Batteries, assisting with body of S. Antone, found drowned	3 20	
Bleasdell, A W	Truss	3 50	
Blygh, E	Services as Stenographer	195 00	
Bonham, R M	Launch-hire and expenses *re* McIlroy and Sleigh	25 00	
Brine, A J	Expressage	1 15	
B C Electric Ry Co	Fares, etc	24 00	
B C Garage	Auto-hire	15 00	
B C Packers' Assn	Rope, batteries, paint, etc	9 00	
Brown, J R	Board and fares	10 75	
Brown, W	Travelling expenses, Rex. *v.* Huss	15 00	
Bunting, F	Services as Stenographer, transcripts, etc	385 85	
Burnett, P	Auto-hire	17 00	
Burns, W	First-aid manuals, bandages	1 65	
Byers, Green, Giegerich Co. Ltd	Cartridges	1 50	
Cade, J P	Medical examination	3 00	
Can General Electric Co	Batteries and repairs	1 65	
C P Railway Co	Telegrams, freight	58 14	
C P Steamship Co	Fares	9 60	
Cantuluk, T	Assistance in packing body of J. Linquist, drowned	3 50	
Carter Electric Co	Battery and globe	90	
Cary, N	Photographer *re* Rex *v.* Williams and Green	3 00	
Carr, P	(Paid) Drag-hooks	55	
Chappell Bros	Rowboat, oars, and rowlocks	55 00	
City of Salmon Arm	Hire of Court-room, 2 days	6 00	
Clark, J E	Horse-blanket	3 25	
Clinton Trading Co	Cartridges	1 70	
Cochrane, D	Paint and brushes	5 85	
Coleman, G	Battery and globe	75	
Collins, J V	Horse-feed	2 50	
Colton, J U	Serving summons and attending Court	3 00	
Columbia River Lbr Co	Battery	40	
Columbia Valley Sup Co	Lantern	1 25	
Columbian Co, Ltd	Printing declarations, certificate of execution, etc., *re* Ferrante and Frank Jones	11 00	
Conway, J	Travelling expenses *re* Rex. *v.* Christensen and Hendricksen	38 85	
Corbin Coal Co	Team-hire	3 50	
Cullen, G	Scavenging	2 50	
Cunningham, H	Flash-light	1 75	
Cunningham & Son	Batteries and bulbs	4 35	
Curley, J A	(Paid) Batteries	1 55	
Dalgleish, N S	Cartridges	2 50	
Dawley, W T	Paint, putty, rope, etc	11 90	
Day, J W	Treatment and medicine for sick horse	4 00	
Dillabough, G	Rope, galvanized chain	6 75	
Dodd, L A	Paid) Fares, board and room, holding Police Courts	26 80	
Dominion Express Co	Expressage	3 00	
Drinkwater, A	Boat-hire	18 00	
Dukelow, J	Batteries and repairs	2 25	
Duncan Garage	Flash-light	3 25	
Duthie Hardware Co, Ltd	Oil	25	
Electric Supply Co, Ltd.	Batteries and repairs	1 50	
Ellis, A	Executioner's fee and expenses *re* Chong Lu and Ferrante	358 70	
Emory & Walley	Measuring four officers for uniforms	2 00	
Entwisle, W	Repairs to clock	1 00	
Evans, F	Transcripts and telegrams	28 21	
Falconer, T W	Snow-shoes	10 00	
	Carried forward	.....	179,232 04

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	179,232 04
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES.)—*Continued.*		
	Vote No. 84.—Miscellaneous.—Continued.		
Fenstermacher, W L	Services as Stenographer	397 50	
Fewkes, W C	Shells	1 15	
Field, E R	Services as Stenographer	22 50	
Field Drug Co, Ltd	Battery and globe	85	
Fisher, Sons & Co	Materials for uniforms for gaol officers throughout the Province	664 97	
Ford Motor Co of Canada	Auto repairs	36 55	
Forfar, E	Cartage	3 00	
Forman, J	Examining properties known as Town Lots 182B, 182G, 182A, Victoria City, making valuation of same, and giving evidence before Board of Arbitration *re* Johnson Street Arbitration	50 00	
Fort George Drug Co, Ltd	Flash-light, bulbs, and batteries	10 55	
Fox, J	Meals supplied Grand Jurors, Nanaimo Fall Assize	35 25	
Freeman, J A	Obtaining evidence *re* Goodman, convicted of selling liquor illegally	10 00	
French, W B	Services as Stenographer	7 50	
Fraser Transfer	Haulage	3 85	
Gardner, P	Services as Stenographer, transcripts, etc	161 30	
Gibbs, W S	do Clerk of Court	2 50	
Gilbert, J	Transcripts	180 00	
Goodstone, A E	Translation of German documents in case of Rex *v.* Leman	10 00	
Green, J	Repairing revolver	2 00	
Greenwood Waterworks	Batteries and repairs	1 50	
Grierson, S	Expressage	90	
Grimes, J S	Blacksmithing	25 75	
Gunn, G M	(Paid) Battery	50	
Hardiman, J W	(Paid) Removing and cartage of cells to Blue River	18 50	
Hardy, A W	Blacksmithing	1 50	
Harrison, J W	Services as Stenographer and transcripts	21 00	
Helmsing, H F	(Paid) Cartage, batteries	2 50	
Henderson & Taylor	Plans *re* Rex. *v.* Partab Singh	5 00	
Herne, T W	Travelling expenses *re* sittings of County Court	26 75	
Hewat, R	do *re* Courts	17 10	
Hibben Co, T N	Chart of part of north coast of B.C. (Calvert Island) for information of Provincial Police *re* alleged destitute Germans	1 75	
Hill, W R	Services as Stenographer, $435; travelling expenses, $136.09	571 09	
Hood, A S	Travelling expenses	38 55	
Hooson, J E	do	3 40	
Howse Co, Ltd, A E	Battery and bulb	1 00	
Hudson's Bay Co	Norway tar, neatsfoot oil, bell-strap, etc	5 25	
Hulbert, H L	Services as Guide searching for remains of H. Dotterer	7 00	
Hunter, J D, M D	Medical examination in Rex *v.* Reid	25 00	
Imperial Oil Co, Ltd	Gasolene, polarine, freight	68 40	
Jackman, L	Meals	1 00	
Jamieson, L C	Shells, batteries, oil, globes, etc	15 70	
Johnson, W E G	Services as Stenographer and expenses	531 21	
Johnston, A M	Services as Counsel for the defence, Rex *v.* Chong Li and Rex *v.* Ferrante	100 00	
Joule, A J	Livery-hire	40 00	
Jupp, P W	Electric torch and battery	1 50	
Kelly, W C	Rent of building for Court-room	6 00	
Kelowna Furniture Co	Rent of tables and chairs	3 00	
Kennington, G A	Drag	1 00	
Kershaw, J B	Flash-light and battery	4 10	
Kier, W	(Paid) Shells	85	
King, R W	Services, searching for body	3 00	
Kirk, W S	Patrol tent	5 00	
Kvarno, J H	Rope and paint	2 60	
Laham, A	Batteries and bulb	2 00	
Langley, H	Services as Stenographer and expenses	344 25	
Law Society of B C	Annual membership fee of Mr. A. V. Pineo	20 00	
Lescher, C E	Services as Stenographer	127 50	
Lines, W H	(Paid) Fares *re* Rex *v.* Partab Singh	2 15	
Lister, F H	(Paid) Launch-hire	6 00	
Mackay, P J	Services as Stenographer and expenses	590 20	
Manifold, L M	Copying four indictments and letter	3 00	
Mansell, H H	(Paid) Batteries	5 00	
Mansfield, C J	Services as Stenographer	27 50	
Markland, F D	Expenses, searching for G. Blackman, lost, packing body to Vancouver, etc	166 60	
Marlatt & MacKenzie	Flash-lamp and battery	70	
Marsh Bros	Batteries and bulb	1 60	
Marshall, S	(Paid) Team-hire, expenses obtaining evidence *re* illegal selling of liquor	9 00	
Marshall, T	Cartage	2 50	
Martin, L H	Services as Stenographer and expenses	242 10	
Mason & Risch, Ltd	Piano for church services at Oakalla Prison Farm	180 00	
Maynard, A H	Photos and reprints	2 20	
Mellor, A	Rope	15 00	
Mills, R F	(Paid) Expressage of beef exhibits and hide *re* Rex *v.* Vroon and Smith	10 00	
Minty, A C	Expenses *re* inspection of licensed premises at McBride	20 95	
Mitchell, E A	Photo supplies	2 05	
Moore, F R	Auto-hire	29 00	
	Carried forward	.....	179,232 04

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	179,232 04
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 84.—Miscellaneous.—Continued.		
Moss, C H	(Paid) Tracing-cloth, battery	1 85	
Murchie, D	Erecting and taking down scaffolds (2), new bolts, and sash-cord	101 75	
McBride, J D	Flash-light and battery	2 85	
McCannell & Son, J	Horse-feed	6 00	
McConnell, J J	(Paid) Film, developing and printing	1 20	
McCorkell Bros	Shells	1 00	
McEwan, J E	Stable supplies	2 85	
McKinnon, P	Horse-feed	12 00	
McLaren, H W	Batteries and globes	4 05	
McMynn, W G	Licence fee for auto, fares, meals, etc, Oakalla Prison Farm	15 55	
McNeill, A	(Paid) Expressage, batteries and globes	4 90	
McRae, Ltd	Cards for jury balloting	80	
Neil & Cryderman	Horse-feed	1 50	
Noakes, A O, B C L S	Preparing plans *re* Hoggan Grant	165 00	
Norgrove, J	(Paid) Battery	75	
North, S	(Paid) Travelling expenses, batteries, lamps, etc	14 55	
Northern Electric Co	Batteries and postage	18 96	
Nor Lbr & Mercantile Co	Shells	2 00	
Nowell, T	Painting launch	5 00	
Ogilvie, R J	Breaking, disking, harrowing, and sowing oats, attending police horses, etc	45 75	
Osborne, R M	Services as Stenographer	5 00	
Owen, W	(Paid) Freight	25	
Owen, J C	Batteries	1 50	
Palace Livery	Livery-hire	1 00	
Palmer, F	Hay, pasturage, and team-hire	73 50	
Parker, W	Freight on liquor seized in Rex *v.* Yee Wah	35 00	
Paul, N J, M D	Medical attendance to Constable R. L. Matthews (broken leg)	15 00	
Payne, E	Gasolene, hooks, line	2 50	
Peden Bros	Shells	1 10	
Peppler, E	Cartridges	80	
Perry, F G	Services as Stenographer, transcripts, etc	323 20	
Pickrem, H L	Bay gelding for use of police at Pouce Coupe	85 00	
Piper, W W	Oats	29 50	
Porter, M	Hay	1 55	
Powell, M T	Auto-hire	4 00	
Powell River Co, Ltd	Haulage	75	
Preston, L B	Photos	4 00	
Prior & Co, Ltd, E G	Bolts and rope	6 05	
Read, L C	Films, developing and printing	2 25	
Reliable Furniture Co	Repairs to mattress and pillow, Rex *v.* Jones	1 00	
Renner, J	(Paid) Cartridges	1 85	
Revillon Freres	Mosquito-netting, sweat-pads, halter, horse-bell, etc	7 70	
Richards, E E	Services as Stenographer and expenses	170 15	
Robinson, J H	Assistance, burying remains of J. MacRae, drowned	2 00	
Robinson, K J	Services as Stenographer	3 50	
Rocky Mountain Livery & Stage Line, Ltd	Expressage	3 00	
Ruddy & MacKay	Auto-hire	10 00	
Ruttan, J L	Rent of Board of Trade room for County Court	5 00	
Sampson, R	Cartridges, batteries, assistance, 2 Indians taking body of a Japanese out of water	3 80	
Sargent, R S	Batteries	1 30	
Sarnak, D	Services, assisting in packing body of J. Linquist, drowned	3 50	
Sarnak, T	do " "	4 00	
Saunders, D F	Services as Stenographer	15 00	
Scully, W	Gilt crowns, bronze stars, buttons, etc., for uniforms of gaol staffs	58 20	
Seymour, L J	Services as Stenographer	45 00	
Shaw, G R	Pack-saddle	6 00	
Shore Hardware Co, Ltd	Batteries	1 80	
Siracusa, L	Translating into English an Italian letter for Deputy Attorney-General Dept	5 00	
Smith, A L	Taking information and issuing summons, telephone message	3 00	
Smith, J	Services as executioner *re* F. Jones	75 00	
Smith, T	(Paid) Supplies for police launch, rubber gloves, freight, etc	35 50	
Smith, W J	Launch-hire	3 00	
Smith & Carmichael	Salt for horses	2 65	
Speck, G R	Lamps, batteries, keys, etc	2 20	
Stanfield, G	Batteries	2 00	
Steeves, E L	Team-hire, services searching for T. Wake, lost, meals	18 00	
Stephenson, A T	(Paid) Expressage	90	
Sutherland, D W	Rent of chairs and tables, cartage	3 00	
Tait, A	(Paid) Repairs to stop-watches	1 50	
Taylor, J	Launch-hire	20 00	
Taylor, J R	(Paid) Expressage	1 00	
Taylor & Co, A C	Enlargements of photo	50	
Thompson, E	Services as Stenographer	6 00	
Trapp & Co, Ltd, T J	Rope	3 32	
Trites-Wood Co, Ltd	Rent of chairs, cartridges	7 50	
Tupper, J A	Haulage	5 00	
Turnross Livery	Auto-hire	1 00	
	Carried forward	.....	179,232 04

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	179,232 04
	VII.—ADMINISTRATION OF JUSTICE (OTHER THAN SALARIES).—*Concluded.*		
	***Vote No. 84.—Miscellaneous.*—Concluded.**		
Tyler, C W	Services as Stenographer and expenses	289 35	
Union S S Co of B C	Freight	5 65	
Universal Car Co, Ltd	Repairs to police car	3 25	
Unwin, M	Services as Stenographer	277 50	
Up-to-date Drug Store	Batteries, flash-light, bulbs, etc	18 45	
Wallis, R P	Auto-hire	10 00	
Walsh, W H	Services as Stenographer	127 50	
Warren, C A	Batteries	2 70	
Watson, J	Battery	75	
Webb, F	Holding Courts and expenses	14 60	
Wegenast, F W	Fees of the Hon. Attorney-General as ex-officio member of the Canadian Bar Association for 1914-16 inclusive	7 00	
Welsby, G H	Expressage	35	
West Disinfectant Co	Insecticide, sprayer, etc., for fumigation of Hazelton Lock-up	62 63	
White, R	Blacksmithing	8 75	
Wilcox & Hall	Batteries, bulbs	2 40	
Wing, H A	(Paid) Battery	50	
Wolfenden, V A	Auto-hire	4 50	
Wyatt, W S	Bulbs for search-lights	1 00	
			9,729 75
			188,961 79
	VIII.—EDUCATION.		
	Vote No. 85.—Education Office.		
	EXPENSES OF OFFICE.		
Calwell, H	Cartage	50	
Clay, C F	"Cambridge History of English Literature"	4 09	
Dominion Express Co	Expressage	7 20	
Educational Review	Subscription to June 1st, 1916	1 00	
Ginn & Co	Books	20 43	
Greig, K	(Paid) Customs duty	2 90	
Heinemann, W	Books	2 67	
Morris, C S	Map	4 00	
McTavish Bros	Prepaid freight and brokerage	11 80	
Nelson & Sons, T	Books	3 76	
Times Ptg & Pub Co, Ltd	605 copies of "The Times," containing lists of subscribers to the Belgian Children's Relief Fund (one copy sent to each school)	15 14	
Victoria Book & Stat Co.	Books	40 83	
	Total, $114.32		
	BOARD OF EXAMINERS OF PUBLIC SCHOOL TEACHERS, AND EXPENSES.		
Archibald, E H	Teachers' Examinations, travelling expenses	13 80	
Ashton, H	do "	16 35	
Beech, W K	do "	15 60	
Brough, T A	do "	14 45	
Burns, W	do "	14 10	
Chodat, H	do "	15 85	
Davidson, J G	do "	8 25	
Dunnell, H	do "	47 20	
Dunning, J	do "	14 60	
Eastman, M	do "	8 40	
Gordon, J S	do "	7 05	
Henderson, J	do "	14 05	
Henry, J K	do "	15 70	
Klinck, L S	do "	9 15	
Little, D C	do "	87 87	
Little, R A	do "	8 15	
Matthews, S W	do "	12 20	
Robertson, L	do "	16 20	
Robinson, G E	do "	7 00	
Russell, E H	do "	15 60	
Schofield, S J	do " $15.20; fee for setting intermediate and senior papers on geography, $25	40 20	
Willis, S J	Teachers Examinations, travelling expenses	7 55	
Wood, F G C	do "	11 25	
Dominion Express Co	Expressage	74 04	
Victoria Book & Stat Co.	Books and stationery	522 24	
Archibald, E H	High School Examinations, travelling expenses, $ 94.95; services, $ 52.50	147 45	
Ashton, H	do " 63.70; " 87.50	151 20	
Beech, W K	do " 35.70; " 225.00	260 70	
Bridgman, C M	do "	19 45	
	Carried forward	.....	.....

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 85.—Education Office.—Continued.		
	BOARD OF EXAMINERS OF PUBLIC SCHOOL TEACHERS, AND EXPENSES.—*Concluded.*		
Brough, T A	High School Examinations, travelling expenses, $ 68.20; services, $225 00	293 20	
Burns, W	do " 77.00; " 225.00	302 00	
Chodat, H	do " 63.80; " 150.00	213 80	
Davidson, J G	do " 11.50; " 12.50	24 00	
Draper, K N	do "	1 20	
Dunnell, H	do " $ 19.00; services, $113.75	132 75	
Dunning, J	do " 82.20; " 225.00	307 20	
Eastman, M	do " 15.00; " 12.50	27 50	
Elliott, P H	do " 33.15; " 225.00	258 15	
Gilley, R S	do "	1 80	
Gordon, J S	do " $ 27.65; services, $225.00	252 65	
Henderson, J	do " 16.50; " 55.00	71 50	
Henry, J K	do " 52.15; " 107.50	159 65	
Hope, H P	do " 52.42; " 225.00	277 42	
Jordan, E E	do " 73.05; " 67.50	140 55	
Little, D C	do " 32.55; " 225.00	257 55	
Matthews, S W	do " 132.60; " 225.00	357 60	
Mercer, C H	do "	4 50	
MacKenzie, H H	do "	36 15	
MacLaurin, D L	do " $157.13; services, $225.00	382 13	
MacLeod, J V	do "	13 90	
Paul, E B	do " $ 55.40; services, $225.00	280 40	
Putnam, W	do "	25 40	
Roberts, T H	do "	1 80	
Robertson, L	do " $ 40.44; services, $110.00	150 44	
Robinson, D M	do " 55.45; " 83.50	138 95	
Robinson, G E	do "	62 90	
Russell, E H	do " $ 63.60; services, 50.00	113 60	
Stevenson, Rev. J W	do " 19.55; " 25.00	44 55	
Willis, S J	do " 78.75; " 225.00	303 75	
Wood, F G C	do " 131.12; " 50.00	181 12	
Allen, A W	Distribution and collection of examination booklets, 10½ hours @ $1.50	15 75	
Balfour, A	Typewriting lists for three Vancouver schools	5 00	
Calwell, H	Expressage	50	
Canadian Express Co	do	1 40	
Clarke & Stuart Co, Ltd.	Stationery, etc	19 90	
Colonist P & P Co, Ltd	Zinc line cuts	1 98	
Philip, M	Stationery and expressage	1 65	
Victoria Book & Stat Co.	do books	21 22	
Victoria Transfer Co, Ltd	Cartage	1 75	
	Total, $6,482.91		
	EXAMINERS OF HIGH SCHOOL ENTRANCE EXAMINATION PAPERS.		
Anstey, A	Services, marking papers	125 00	
Bruce, L J	do	125 00	
DeLong, J B	do	125 00	
Denton, V L	do	125 00	
Gillis, J D	do	125 00	
Gower, G H	do	125 00	
Martin, J	do	125 00	
May, W H M	do	125 00	
Miller, A E	do	125 00	
Pollock, J T	do	125 00	
Dove, A J	do	125 00	
Lord, A R	do	125 00	
Agar, G	Services as Examiner and Supervisor, Soda Creek, expenses, $10	10 00	
Andrews, G L	do " Courtenay, " 10.85	10 85	
Armstrong, J A	do " Victoria, " 23.35; 20 d. @ $5	123 35	
Ashworth, R W	do " Nakusp, " 10.50	10 50	
Buchanan, A	do " Lillooet Centre, " 21.80	21 80	
Campbell, L A	do " Victoria, " 23.25; 19½ d. @ $5	120 75	
Cavers, A S	do " Trail, " 16.75	16 75	
Clark, G W	do " Victoria, " 54.05; 19 d. @ $5	149 05	
Comins, C M	do " Stranby, " 9.87	9 87	
Cranston, L J	do " Victoria, " 23.15; 19 d. @ $5	118 15	
Crarey, Rev W	do " Masset, " 2.25; 3 " 5	17 25	
Douglas, R J	do " Maple Ridge, " 7.10; 3 " 5	22 10	
Dove, A J	do " " 51.70	51 70	
Dunnell, H	do " Victoria, " 22 ; 18 d. @ $5	112 00	
Emery, C E	do " " " 22.95; 19½ " 5	120 45	
Fougner, L	do " Bella Coola, " 35; 3 " 5	15 35	
Gibson, Rev J	do " Sandspit, " 16.10; 3 " 5	31 10	
Gower, G H	do " New Westminster, " 30.45	30 45	
Grant, W	do " Hazelton, " .75; 3 d. @ $5	15 75	
Greene, Rev H H K	do " Smithers, " .75; 3 " 5	15 75	
	Carried forward		

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	.....
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 85.—Education Office.—Concluded.		
	EXAMINERS OF HIGH SCHOOL ENTRANCE EXAMINATION PAPERS.—*Concluded.*		
Hall, F E	Services as Examiner and Supervisor, Sidney, expenses, $ 3.35	3 35	
Hammill, G	do " Victoria, " 27.20; 19 d. @$5	122 20	
Horning, R L	do " " " 23.35; 19½ " 5	120 85	
Hume, A S	do " Parkesville, " 3.50	3 50	
Jesse, E M	do " Victoria, " 21.25; 18 d. @$5	111 25	
Little, R A	do " " " 40.10; 19½ " 5	137 60	
Macdonald, G A	do " Abbotsford, " 10.95; 3 " 5	25 95	
Marsh, Rev T J	do " Kitsumgallum, " 1.53; 3 " 5	16 53	
Morrow, M K	do " Endako, " 3	3 00	
Murphy, E H	do " Victoria, " 11	11 00	
MacKenzie, A B	do " Athalmer, " 3.19	3 19	
MacKenzie, H H	do " Victoria, " 88.75; 35 d. @$5	263 75	
MacKinnon, G W	do " " " 53.05; 19½ " 5	150 55	
MacNaughton, J	do " " " 21.25; 18½ " 5	113 75	
McDougall, D	do " Lytton, " 6.90	6 90	
McGarrigle, F A	do " Victoria, " 42.50; 20 d. @$5	142 50	
McKay, R	do " " " 52.20; 22½ " 5	164 70	
McLean, Rev D B	do " Quesnel " 3 " 5	15 00	
O'Hearn, A	do " Clinton, expenses, $16.50	16 50	
Palmer, J T E	do " Victoria, " 52.55; 19 d. @$5	147 55	
Paterson, J M	do " " " 23.25; 19½ " 5	120 75	
Pollock, J T	do " " " 17.85; 20 d. $2.50	67 85	
Robinson, D M	do " " " 23.75; 20½ d. $5	126 25	
Robinson, J	do " " " 36.25; 31½ " 5	193 75	
Spencer, J C	do " Port Simpson 3 " 5	15 00	
Stevens, H R	do " Victoria, expenses, $23.25; 19½ " 5	120 75	
Stevenson, M	do " Arrowhead " 7.90; 3 " 5	22 90	
Webber, W H	do " New Denver, " 26.35	26 35	
Weston, W P	do " Victoria, " 81.50; 26½ d. @$5	214 00	
Woodworth, V	do " Chilliwack, " 9.85	9 85	
Wright, —	do " " " 7.60; 3 d. @$5	22 60	
Yates, A	do " Victoria, " 23.35; 18½ " 5	115 85	
Anstey, A	Expressage and supplies	19 80	
Bews, W	Stationery and prepaid expressage	45 89	
Bruce, L J	Car tickets for 17 Supervisors	8 50	
Burr, W R	Stationery	1 15	
Canadian Express Co	Expressage	2 35	
Clarke & Stuart Co, Ltd	Examination supplies	297 29	
Colonist P & P Co, Ltd	Copper half-tone	8 76	
DeLong, J B	(Paid) Postage, etc	2 07	
Dominion Express Co	Expressage	80 97	
Dom Govt Telegraphs	Telegrams	3 72	
Gillis, J D	Car fares for 19 Supervisors	9 50	
Hughes, H	Stationery	7 90	
Inkman, L J A	Postage	21	
Jepson Bros	Stationery	14 90	
Lord, A R	(Paid) Stationery, expressage	55 85	
Miller, A E	(Paid) Expressage	8 53	
Prevost, H F	Stationery	6 25	
Taylor & Co, A C	do	41 45	
Victoria Book & Stat Co	do	76 25	
	Total, $5,849.83	12,447 06	
	Cr. refund, University of B.C. for supplies furnished	301 20	
			12,145 86
	Vote No. 86.—Free Text-book Branch.		
Calwell, H	Expressage and paid freight	905 87	
Canadian Express Co	Expressage	98 77	
Clougher, T R	2,500 prints, "Scrap of Paper"	297 94	
Copp-Clark Co, Ltd	Drawing-books	2,563 14	
Dominion Express Co	Expressage	1,239 88	
Educational Book Co of Toronto	Text-books, etc	8,569 78	
E & N Railway Co	Freight on text-books, etc	2,647 41	
Gage & Co, Ltd, W J	Text-books, labelling, etc	18,177 79	
G N W Telegraph Co	Telegram	1 00	
Hamilton, G G	Expressage	12 00	
Leigh & Sons, J	Boxes and cases	221 75	
Marvin & Co, E B	250 Union Jacks	1,212 50	
Miller, T H	Freight on school maps	2 75	
Macmillan Co of Canada	Text-books	4,622 26	
McTavish Bros	Brokerage	7 00	
Nelson & Sons, Ltd, T	Text-books	1,756 48	
	Carried forward	.....	12,145 86

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	12,145 86
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 86.—Free Text-book Branch.—Concluded.		
Powell & Sons, G	Cheese-cloth, nails, etc	25 98	
Turner, Beeton & Co, Ltd	Union Jacks, 5 @ $4.50	22 50	
Victoria Book & Stat Co.	Text-books	125 95	
Yorston, R	Expressage	1 75	
			42,512 50
	Vote No. 87.—Inspection of Schools.		
Anstey, A	Travelling expenses as Inspector	1,216 00	
Bruce, L J	do "	418 75	
Deane, G H	do "	979 45	
DeLong, J B	do "	1,330 56	
Denton, V L	do "	215 20	
Dove, A J	do "	1,522 60	
Gillis, J D	do "	288 35	
Gower, G H	do "	852 85	
Lord, A R	do "	1,781 00	
Martin, J	do "	2,047 88	
May, W H M	do "	225 75	
Miller, A E	do "	1,368 04	
MacLaurin, D L	do "	131 90	
MacLean, H B	do "	121 90	
Pollock, J T	do "	235 00	
Robinson, A	do Superintendent	545 45	
Spouse, J	do Inspector	9 80	
Sullivan, A	do "	156 20	
			13,446 68
	Vote No. 88.—Provincial Normal Schools.		
	BOOKS, APPARATUS, AND INCIDENTAL EXPENSES, VANCOUVER.		
Annual Review Pub Co	"Canadian Annual Review of Public Affairs" for 1915	4 25	
Birks & Sons, Ltd, H	Alarm-clock	1 50	
Bishop & Christie	Water-colours	4 47	
Burns, W	(Paid) Postages, books, water-colours, fares, meals, etc	114 54	
Burns Drug Co, Ltd	Ink, stationery, drugs, etc	76 13	
Cascade Steam Laundry Co, Ltd	Laundry	15 95	
City of Vancouver	Books	6 62	
Clarke & Stuart Co, Ltd	Stationery, books, etc	472 35	
Collier & Son, P F	One set of "The Harvard Classics," 50 vols	49 50	
Curwen & Sons, Ltd, J	Action songs	1 23	
Educational Pub Co	Books, etc	2 60	
Forsyth & Co, G S	do	9 85	
Glasgow, Brook & Co	"Chronicles of Canada"	50 16	
Granville Stat Co, Ltd	Books	10 40	
Houghton-Mifflin Co	do	11 46	
Lipsett, E	Union Jacks	6 75	
Macmillan, L, M D	Examination of students	115 00	
Macmillan Co of Canada	Books	1 92	
Mainland Transfer Co, Ld	Freight	5 00	
Novello & Co, Ltd	Books	1 37	
Renwick & Cunliffe, Ltd	Crockery	10 84	
Robertson & Hackett	6 stands	16 50	
Roedde, Ltd, G A	Binding books, etc	15 90	
St John Ambulance Assn	Lessons in first aid	55 00	
Scribner's Sons, C	Books	24 30	
Ward, Ellwood & Pound	Lesson papers, class reports, certificates, etc	78 30	
Western Specialty, Ltd	Stationery	36 00	
	Total, $1,197.89		
	BOOKS, APPARATUS, AND INCIDENTAL EXPENSES, VICTORIA.		
Collier & Son, P F	Books	58 05	
Davidson, G E	Ploughing and cultivating 2 lots	3 00	
Dawson & Sons, Ltd, W	Books and magazines	60 21	
Denne, L	Domestic-science supplies	136 06	
Denovan, Dr E	Medical examination of students	43 00	
Dunnell, H	(Paid) Filing saws, books, etc	6 85	
Evans Bros, Ltd	Books	5 97	
Fletcher Bros	National song-books, etc	55 50	
Forrester, J L	Frames	1 80	
Fuggle, G W	Tuning piano	3 00	
Grolier Socy of London	1 set "Book of History," 1 set "Book of Knowledge"	73 25	
Hibben & Co, T N	"Stoddard's Lectures"	25 00	
Leigh & Sons, J	Lumber for manual training	109 64	
	Carried forward	.....	68,105 04

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	68,105 04
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 88.—Provincial Normal Schools.—Concluded.		
	Books, Apparatus, and Incidental Expenses, Victoria.—*Concluded.*		
Longfield, J A	Tuning piano	3 00	
McClelland, Goodchild & Stewart	Books	296 38	
MacLaurin, D L	(Paid) Groceries, milk, postage, books, etc	133 65	
McMichael, J	Tending and weeding the school-garden from May 19th to August 21st, 1916	20 00	
Nat Drug & Chemical Co	Spirit-lamps and potash	3 70	
Partridge, C S	Labour *re* school-garden	8 40	
Powell & Sons, G	Twine, fork, paint, etc	6 50	
Savory, W J	Seeds	27 30	
Scott & Peden	Seed-potatoes	13 00	
Smith, Davidson & Wright	Stationery, etc	127 54	
Sylvester Feed Co	Seed	2 45	
Underwood & Underwood	Coloured lantern-slides	197 45	
Victoria Book & Stat Co.	Stationery	30 00	
Victoria Hardware Co	Hardware	49 29	
	Total, $1,499.99		
	Mileage for Students.		
Pay-lists	Mileage of students	5,201 90	
			7,899 78
	Vote No. 89.—Education of Deaf and Dumb and Blind.		
Broadwell, Mrs J	Freight, Brantford to Saltspring, on basket-making material for F. Westcott	50 64	
Browne, Mrs L O	Fare of Roy Browne, Vancouver to Winnipeg	11 55	
California School for the Deaf and the Blind	Board and tuition of F. Johnson, 15 months	426 12	
Can Bank of Commerce	Telegrams *re* transfer of money to Manitoba School for the Deaf	1 46	
Children's Aid Soc of Vic.	Care of F. Brooks, with board, June 15th to August 3rd	16 00	
Coldevin, Mrs J	Fare and berth, H. M. Coldevin, Winnipeg to New Westminster and return	54 05	
Crane, W	do C. Crane, to Halifax School for the Blind and return fare and berth for Mrs. W. Crane	262 10	
Dearin, J	do A. Dearin, Winnipeg to Nelson and return	44 20	
DesBrisay, T D	do W. DesBrisay, Brantford to Nelson, Nelson to Halifax, berth Kootenay Landing to Ottawa	155 10	
Duclos, Mrs G	do P. Duclos, Winnipeg to Quesnel and return	76 70	
Every-Clayton, G	do E. Every-Clayton, Winnipeg to Courtenay and return	59 40	
Halifax School for Deaf	Board and tuition of Charles Crane, June 9th to November 10th	250 00	
Govt Agent, Fernie	(Paid) Fare and berth, L. O. Sherman, F. Hutchison, and J. Gash, Fernie to Brantford	122 50	
Hunter, J H	Fare, W Hunter, Winnipeg to Vancouver and return, share of sleeper	30 75	
Jenkins, Mrs M	Fares, meals, etc., conveying deaf pupils to Winnipeg	462 05	
Johnston, D	Clothing supplied to S. Johnston	25 00	
Manitoba School for Deaf	Maintenance of 16 pupils from September 16th, 1915, to September 15th, 1916	5,773 33	
do	Fares, berths, clothing, etc., (2), S. Johnston, Winnipeg to Vancouver	53 40	
do	do " (2), F. Brooks, " Victoria	74 50	
do	do " (2), T. Wood, " Vancouver	89 55	
do	do " (2), E. Anderson, " "	100 81	
do	do " H. Coldevin, " New Westminster	25 85	
do	do " R. Burns, " Vancouver	26 33	
do	do " (2), W. Richards, " South Wellington	108 74	
do	do " Roy Browne, " Vancouver	19 42	
do	do " R. Cumming, " Sandon	24 15	
do	do " A. Dearin, " Nelson	19 55	
do	do " P. Duclos, " Prince George	27 85	
do	do " E. Every-Clayton, " Courtenay	27 20	
do	do " W. Hunter, " Vancouver	14 35	
do	do " M. Mason, " "	14 35	
do	do " G. McNeish, " "	25 85	
do	do " R. Thompson, " Victoria	25 85	
do	do " D. Walker, " Kamloops	22 60	
do	Clothing supplied to R. Brooks	12 65	
Macalister, J	Fare and berth, D. Macalister, Macalister to Brantford	55 20	
Mason, W F	do M. Mason, Vancouver to Winnipeg	11 60	
McNeish, Mrs H R	do G. McNeish, Winnipeg to Vancouver and return	54 00	
Ontario School for Deaf	do J. Moreland, Belleville to Summerland	54 60	
do	do L. Sherman, Brantford to Fernie	115 00	
do	do F. Westcott, " Saltspring		
do	Basket-making outfit for F. Westcott	238 75	
do	Fares, berths, clothing, etc., L. Sherman, Brantford to Fernie, Fernie to Victoria (balance)	16 20	
do	Tuition fee of J. Moreland, September 13th, 1916, to June 15th, 1917	250 00	
do	Tuition fee, etc., of L. Sherman, J. Gash, F. Hutchinson, D. Macalister, June 22nd, 1916, to June 21st, 1917	622 05	
Prov Treas of Manitoba	Maintenance and tuition of 16 pupils for 2,567 days @ $1 per day	2,567 00	
	Carried forward	.....	76,004 82

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	76,004 82
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 89.—Education of Deaf and Dumb and Blind.—Concluded.		
Spencer, Ltd, D.	Clothing supplied to F. Brooks per Mrs. Jenkins	26 50	
Thompson, Mrs E	Fare and berth, W. Thompson, Winnipeg to Vancouver	16 65	
Thompson, Mrs T J	do R. Thompson, " Victoria	25 10	
			12,586 60
	Vote No. 90.—Agricultural Education.		
Alexander, T O	Grant on account of Teacher's bonus, General Brock School, South Vancouver	6 00	
Anderson, A	do " Cheam " Chilliwack	10 00	
Anderson, C	do " Kerrisdale " Point Grey	20 00	
Anderson, E	do " Pleasant Valley " Spallumcheen	10 00	
Anderson, H R	do " MacKenzie " South Vancouver	10 00	
Anderson, M H	do " Inman Avenue " Burnaby	12 00	
Anning, N	do " Rosedale " Chilliwack	6 00	
Armstrong, F A	do " Tecumseh " South Vancouver	20 00	
Arthurs, W T	do " R. McBride " New Westminster	20 00	
Banford, G E	do " Lord Lister " "	10 00	
Barchard, V C	do " Columbia Park "	6 00	
Bassett, I	do " Central " Cranbrook	12 00	
Bayley, H	do " Lulu " Richmond	30 00	
Bechtel, E M	do " Central " Cranbrook	20 00	
Bent, R E	do " Seymour Arm "	10 00	
Berton, N	do " Keating " Saanich	10 00	
Bertrand, C	do " Upper Big Bar "	10 00	
Bice, E L	do " Needles "	10 00	
Bowyer, G	do " Cowichan "	30 00	
Bradley, A E	do " Central " Chilliwack	10 00	
Bradley, E	do " Rosedale " "	10 00	
Brannick, E H	do " East Chilliwack " "	10 00	
Brundrett, M E	do " Schou Street " Burnaby	20 00	
Brett, G	do " Larkin " Spallumcheen	10 00	
Brunton, L	do " Grandview " Vancouver	18 00	
Bryson, R A	do " Carleton " South Vancouver	10 00	
Buckingham, M	do " Steveston " Richmond	10 00	
Burns, F H	do " Vesuvius "	10 00	
Carr, E N	do " Ellison "	20 00	
Carruthers, W	do " Sexsmith " South Vancouver	10 00	
Carter, M E	do " Mud Bay " Surrey	12 00	
Cartmell, G	do " Sardis " Chilliwack	20 00	
Cartright, M L	do " Huscroft "	6 00	
Catherwood, E A	do " Mission "	20 00	
Celle, P T D	do " Hume "	6 00	
Charlesworth, H	do " George Jay " Victoria	30 00	
Chester, E F	do " Central " Armstrong	6 00	
Chisholm, A K	do " " " Port Coquitlam	10 00	
Chisholm, C F	do " Sardis " Chilliwack	18 00	
Chivers, M	do " " " "	6 00	
Christopherson, V	do " F. W. Howay " New Westminster	6 00	
Clark, E F	do " Brisco "	20 00	
Clarke, J A	do " Tecumseh " South Vancouver	18 00	
Clarke, S J	do " Sir A. Mackenzie " "	10 00	
Clarke, T V	do " Central " Chilliwack	20 00	
Clemens, I E	do " Bridgeport High " Richmond	10 00	
Coates, C A	do " Hume "	10 00	
Coates, J H L	do " Kilgard " Sumas	30 00	
Coates, P C	do " Oaklands " Victoria	30 00	
Codd, S	do " Galloway "	10 00	
Cook, D L	do " Ladner " Delta	10 00	
Cox, A E	do " Hatzic " Mission	10 00	
Cox, E M	do " James Park " Port Coquitlam	20 00	
Crake, H F	do " Edmonds Street " Burnaby	10 00	
Crawford, M J	do " Steveston " Richmond	30 00	
Creech, W J E	do " Dawson " Vancouver	30 00	
Croft, C	do " Central " Kaslo	10 00	
Cullen, A	do " Ainsworth "	6 00	
Currie, H S	do " Merritt "	10 00	
Currie, M K	do " Central " Grand Forks	6 00	
Darling, J G	do " Ucluelet Arm "	10 00	
Davidson, D	do " Stewart "	30 00	
DeLong, D F	do " Central " Grand Forks	12 00	
Dewar, M	do " MacKenzie " South Vancouver	6 00	
Dixon, G L	do " Oaklands " Victoria	10 00	
Dockrill, P	do " F. W. Howay " New Westminster	10 00	
Dodds, A J W	do " North Vesuvius "	20 00	
Down, F T	do " South Wellington "	20 00	
Draper, H	do " Kensington Prairie " Surrey	20 00	
Drummond, J S	do " Whonnock " Maple Ridge	20 00	
Duncan, E P	do " Bridgeport Public " Richmond	10 00	
	Carried forward	.....	88,591 42

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	88,591 42
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 90.—Agricultural Education.—Continued.		
Duncan, G E	Grant on account of Teacher's bonus, Wynndel School		6 00
Eades, W J	do " Hume "		20 00
Eastham, A	do " Dawson " Vancouver		18 00
Estabrooks, H	do " Bridgeport Public " Richmond		10 00
Faris, K M	do " Rutland "		10 00
Feast, P C	do " Kerrisdale " Point Grey		8 00
Freeman, E R	do " Fauquier "		10 00
Freeman, L M	do " Public " Merritt		6 00
Gilley, B	do " Johnston Road " Surrey		10 00
Gilley, R	do " Belmont " Langley		20 00
Giegerich, H	do " Central " Chilliwack		6 00
Gilchrist, N	do " Cheam "		6 00
Gilmer, G	do " Kerrisdale " Point Grey		6 00
Gladwell, M	do " Herbert Spencer " New Westminster		10 00
Glaspell, H A	do " Grand Forks "		20 00
Glass, J C	do " Edmonds Street " Burnaby		16 00
Graham, J	do " Long Lake "		20 00
Gray, M A	do " Kingsway East " Burnaby		10 00
Gray, W H	do " J. Robson " New Westminster		30 00
Grenfell, M E	do " Chu Chua "		6 00
Griffiths, S J	do " Gilmore Avenue " Burnaby		20 00
Grubb, R N	do " Saanichton " Saanich		6 00
Hamilton, J A	do " Norquay " South Vancouver		30 00
Harris, J W	do " Upper Trout Creek "		10 00
Hartinger, I R	do " Central " Armstrong		6 00
Hartley, A A	do " Chase "		6 00
Hayes, Lottie	do " Otter Lake " Spallumcheen		6 00
Hayes, Lydia	do " Salmon Valley "		6 00
Hayes, W P	do " Bamberton "		12 00
Hawe, Z C	do " Public " Merritt		10 00
Heard, N M	do " Lord Selkirk " South Vancouver		10 00
Herkins, H M	do " Rutland "		12 00
Hicks, F W	do " Galiano "		20 00
Hindle, L E	do " Carleton " South Vancouver		30 00
Hinsley, G M	do " East Delta " Delta		10 00
Hood, L	do " Denman Island "		30 00
Hookings, C E	do " Meadow Spur "		20 00
Howell, L MacL	do " Dawson " Vancouver		12 00
Houston, W F	do " Ladner " Delta		12 00
Hume, A S	do " Parksville "		18 00
Hutchison, B	do " Courtenay Public "		12 00
Hutchison, J M	do " Ladner " Delta		10 00
Imlah, A E	do " Strathcona " Chilliwack		10 00
Ireland, A M	do " White Rock " Surrey		6 00
Ireland, E F	do " " " "		6 00
Irvine, A E	do " Central " Port Coquitlam		20 00
Irwin, J	do " Erie "		20 00
Jackson, M A	do " Lord Selkirk " South Vancouver		10 00
Johnson, M A	do " Craigflower " Saanich		20 00
Johnson, M H T	do " Glenemma "		12 00
Jones, D E	do " Tynehead " Surrey		6 00
Kittson, M E	do " Inverholme " Delta		6 00
Kneeshaw, M E	do " Norquay " South Vancouver		12 00
Knight, E E	do " Central " Chilliwack		6 00
Knight, E M	do " " " "		6 00
Laidlaw, A	do " Kerrisdale " Point Grey		6 00
Lambert, L	do " T. W. Howay " New Westminster		18 00
Lawrence, F C	do " Quennell " Nanaimo		6 00
Lawson, E G	do " Kingston Street " Victoria		20 00
Leamy, L	do " Herbert Spencer " New Westminster		5 00
Ledingham, G M	do " Craigflower " Saanich		10 00
Lettice, K M	do " Cortes Island "		20 00
Levy, T E	do " R. McBride " South Vancouver		6 00
Ligertwood, A	do " Saskatoon Creek "		20 00
Logan, C	do " Sir Alex. Mackenzie " South Vancouver		12 00
Lowther, D H H	do " Inman Avenue " Burnaby		12 00
Lyness, E M	do " English " Richmond		10 00
Macdonald, M A	do " Atchelitz " Chilliwack		20 00
Mackenzie, C F	do " Westholme " North Cowichan		10 00
Macleod, R P	do " Kaslo Public "		10 00
Magee, E L	do " Rutland "		20 00
Mann, E G	do " Hjorth Road " Surrey		12 00
Marriage, F T	do " Arrowhead "		10 00
Marshall, E E	do " Mitchell " Richmond		20 00
Marshall, L M	do " Steveston " "		20 00
Martin, A	do " Carleton " South Vancouver		30 00
Martin, A E C	do " R. McBride " "		20 00
Matheson, A S	do " Central " Grand Forks		6 00
Maycock, E J	do " Bridgeport High " Richmond		20 00
	Carried forward	.....	88,591 42

TO WHOM PAID	FOR WHAT SERVICE.					$ cts.	$ cts.
	Brought forward					.....	88,591 42
	VIII.—EDUCATION.—*Continued.*						
	Vote No. 90.—Agricultural Education.—Continued.						
Miller, E R	Grant on account of Teachers' bonus,		English	School	Richmond	20 00	
Milligan, C J	do	"	Courtenay	"	.....	10 00	
Millins, B M	do	"	Gordon Head	"	Saanich	6 00	
Mitchell, M W	do	"	Golden	"	.....	12 00	
Moore, D M	do	"	Mission City	"	.....	20 00	
Morley, E M	do	"	North Sannich	"	.....	10 00	
Morrison, N	do	"	Edmonds Street	"	Burnaby	20 00	
Mude, M	do	"	Bridgeport Public	"	Richmond	10 00	
Murray, C E	do	"	Mission City	"	.....	10 00	
Murray, H E	do	"	Knob Hill	"	Spallumcheen	18 00	
MacDonald, M A	do	"	Crofton	"	North Cowichan	20 00	
MacDonald, R	do	"	Glenbank	"	.....	12 00	
MacInnes, R H	do	"	Oaklands	"	Victoria	30 00	
MacIntosh, J A	do	"	Bridgeport High	"	Richmond	10 00	
MacKay, M	do	"	Belmont	"	Langley	6 00	
MacKenzie, R W	do	"	George Jay	"	Victoria	18 00	
MacLeod, E L	do	"	Norquay	"	SouthVancouver	12 00	
MacRae, H	do	"	"	"	"	10 00	
McCallum, A	do	"	Lansdowne	"	Spallumcheen	6 00	
McCallum, J M	do	"	East Kelowna	"	.....	10 00	
McDougall, A J	do	"	East Chilliwack	"	Chilliwack	6 00	
McEwen, H	do	"	Grand Forks	"	.....	10 00	
McIlvanie, S	do	"	Newton	"	Surrey	10 00	
McKay, S E	do	"	Roe Lake	"	.....	6 00	
McKee, G H	do	"	Central	"	Armstrong	6 00	
McKenna, A J	do	"	Barnet	"	Burnaby	12 00	
McKenzie, J M	do	"	Riverway East	"	"	10 00	
McKenzie, M	do	"	Keating	"	Saanich	10 00	
McLean, M B	do	"	R. McBride	"	New Westminster	10 00	
McNaughton, H	do	"	Gordon Head	"	Saanich	10 00	
McNeely, K	do	"	Bridgeport Public	"	Richmond	30 00	
Noakes, F B	do	"	North Shuswap	"	.....	12 00	
Nunneley, A R	do	"	Merritt Public	"	.....	6 00	
O'Hearn, E	do	"	Fairf'ld&Strathcona	"	Chilliwack	10 00	
O'Keiffe, B	do	"	Pembroke Street	"	Victoria	10 00	
Oliver, D A	do	"	Canoe Pass	"	Delta	20 00	
O'Neill, W W C	do	"	Willow River	"	.....	10 00	
Orange, E G	do	"	Roberts Creek	"	.....	20 00	
Orr, J M	do	"	Promontory	"	Chilliwack	12 00	
Page, M	do	"	Ridgedale	"	Matsqui	12 00	
Park, E B	do	"	Kerrisdale	"	Point Grey	20 00	
Perry, E D	do	"	Sir Wm. Van Horne	"	South Vancouver	10 00	
Philip, M	do	"	Public	"	Kaslo	10 00	
Plaxton, W	do	"	Lotbiniere	"	Chilliwack	10 00	
Pollard, W H	do	"	Atchelitz	"	"	6 00	
Porter, J	do	"	Queen Mary	"	Point Grey	20 00	
Portsmouth, M	do	"	Mission City	"	.....	10 00	
Prescott, T	do	"	Keremeos	"	.....	20 00	
Richards, J M	do	"	Central	"	Cranbrook	12 00	
Riddell, V H	do	"	Public	"	Kaslo	10 00	
Robertson, M	do	"	Craigflower	"	Saanich	10 00	
Ross, I E	do	"	Lord Lister	"	New Westminster	10 00	
Rowan, J F	do	"	Lord Kelvin	"	"	30 00	
Sangster, G K	do	"	Gillis Bay	"	.....	6 00	
Sayer, J	do	"	Edgewood	"	.....	6 00	
Schaefer, M E	do	"	Van Horne	"	South Vancouver	10 00	
Shearman, E R	do	"	"	"	"	10 00	
Sheepy, J	do	"	Children's Home	"	Vancouver	10 00	
Sheffield, P H	do	"	Belmont	"	Langley	12 00	
Shields, R S	do	"	Central	"	Cranbrook	10 00	
Sidney, E	do	"	Ridgedale	"	Matsqui	20 00	
Simms, E P	do	"	Big Bar	"	.....	30 00	
Siverts, C	do	"	Grantham	"	.....	6 00	
Sivertz, H G	do	"	Happy Valley	"	.....	6 00	
Skea, E	do	"	Lotbiniere	"	Chilliwack	10 00	
Smith, B N	do	"	Parsons Hill	"	"	6 00	
Smith, H M	do	"	Kerrisdale	"	Point Grey	10 00	
Smith, M	do	"	Woods Lake	"	.....	12 00	
Smith, P S	do	"	Kingsway West	"	Burnaby	10 00	
Snider, W S	do	"	Kensington Prairie	"	Surrey	10 00	
Somervllle, C E	do	"	Big Eddy	"	.....	18 00	
Stephen, R	do	"	Herbert Spencer	"	New Westminster	5 00	
Stewart, A	do	"	Mount Lehman	"	Matsqui	6 00	
Stiven, A M	do	"	Powell River	"	.....	20 00	
Stuart, N M	do	"	Camp Slough	"	Chilliwack	10 00	
Sullivan, K	do	"	Hillier	"	.....	6 00	
Summers, G S	do	"	Richard McBride	"	New Westminster	20 00	
Tanner, E W	do	"	Sorrento	"	.....	9 00	
Taylor, A H	do	"	Lord Lister	"	New Westminster	48 00	
	Carried forward					.....	88,591 42

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward	.....	88,591 42
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 90.—Agricultural Education.—Continued.		
Templer, J	Grant on account of Teacher's bonus, Fairview School, Vancouver	30 00	
Third, J C	do " Ladner " Delta	10 00	
Thomas, M	do " Yarrow and Sardis " Chilliwack	10 00	
Thompson, J	do " Public " Merritt	10 00	
Thornber, C L	do " Tecumseh " South Vancouver	30 00	
Tingley, A L	do " Port Clements "	20 00	
Tribe, J	do " Sumas and Cheam " Chilliwack	20 00	
Wallace, L E	do " Boswell "	20 00	
Ward, A A	do " Central " Chilliwack	6 00	
Ward, C E	do " Lazo "	10 00	
Wardill, O	do " Quennell " Nanaimo	6 00	
Warren, E	do " Barnston Island "	30 00	
Wate, G S	do " Sexsmith " South Vancouver	20 00	
White, F M	do " Brock " "	6 00	
White, G B	do " Strathcona " Chilliwack	6 00	
Whistler, H K	do " Aberdeen " Matsqui	6 00	
Whistler, H K	do " Mission "	4 00	
Williams, J	do " Renata "	20 00	
Wilson, M	do " F. W. Howay " New Westminster	5 00	
Winslow, L A	do " R. McBride " South Vancouver	10 00	
Wolfenden, L	do " John Robson " New Westminster	20 00	
Wolverton, D A	do " Hume "	10 00	
Wood, C B	do " Soda Creek "	10 00	
Wood, I V	do " South Keremeos "	6 00	
Woods, H K	do " Procter "	10 00	
Wright, C	do " Nob Hill "	10 00	
Wyrill, I	do " Box Lake "	10 00	
Trus' Ainsworth School D	Grant on account of school-gardening	18 50	
do Armstrong City "	do " $48; agricultural education, $100	148 00	
do Barnston Island "	do "	8 25	
do Big Eddy "	do "	30 00	
do Box Rake "	do " $43.75; improv't of school-grounds...$50.50	94 25	
do Brisco "	do "	30 00	
do Burnaby "	do " $347.49; improv't of school-grounds, $462.17	809 66	
do Chilliwack "	do " 638.95; " " 175	813 95	
do Chimney Creek "	do "	21 80	
do Chu Chua "	do "	50 00	
do Cortes Island "	do "	20 00	
do Courtenay City "	Improvement of school-grounds	16 50	
do Cowichan "	Grant on account of school-gardening	28 55	
do Cranbrook City "	do " $66; improvement of school-grounds, $83.85	149 85	
do Deer Park "	Improvement of school-grounds	125 00	
do Delta "	Grant on account of school-gardening, $136.37; improv't of school-grounds, $47.90	184 27	
do Denman Island "	do home-gardening	15 00	
do East Kelowna "	do school-gardening	30 00	
do Edgewood "	do "	32 65	
do Ellison "	do "	28 85	
do Erie "	do "	30 00	
do Esquimalt "	do " ; improvement of school-grounds	123 81	
do Fauquier "	do home-gardening	17 35	
do Galloway "	do school-gardening	16 50	
do Gillis Bay "	do "	5 15	
do Glenbank "	do home-gardening	9 50	
do Glenemma "	do "	10 07	
do Golden "	do school-gardening	49 80	
do Grand Forks "	do "	90 00	
do Grantham "	do "	30 00	
do Happy Valley "	do home-gardening	17 00	
do Hillier "	do school-gardening	20 00	
do Hume "	do "	53 60	
do Huscroft "	do "	12 15	
do Kaslo City "	do "	57 00	
do Kelowna City "	Improvement of school-grounds	84 13	
do Keremeos "	Grant on account of home-gardening	15 00	
do Kitsumgallum "	do school-gardening	28 10	
do Lazo "	do home-gardening	11 20	
do Long Lake "	do school-gardening	44 20	
do Maple Ridge "	do " $30; improvement of school-grounds, $55.50	85 50	
do Matsqui "	do " 41.70; " " 13.38	55 08	
do Meadow Spur "	do "	22 74	
do Merritt "	do "	109 00	
do Mission City "	do " $109.60; improv't of school-grounds, $73.70	183 30	
do Nanaimo City "	do "	38 00	
do Needles "	do home-gardening	21 20	
do New Westminst "	do school-gardening, $318; improv't of school-grounds, $139.38	457 38	
do North Cedar "	do home-gardening	18 90	
do Nor Cowichan "	do school-gardening $45.55; improv't of school-grounds, $71.23	116 78	
do N Shuswap "	do "	5 50	
do N Vancouver "	Improvement of school-grounds	225 00	
	Carried forward	.....	88,591 42

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	88,591 42
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 90.—Agricultural Education.—Continued.		
Trus' N Vesuvius Sch'l D	Grant on account of school-gardening	30 00	
do Parksville "	do " $30; improvement of school-grounds, $65.68	95 68	
do Penticton "	Improvement of school-grounds	350 68	
do Point Grey "	Grant on account of school-gardening $90; improvement of school-grounds, $100	190 00	
do Port Clements "	do home-gardening	30 00	
do Pt Coquitlam "	do school-gardening, $59.82; improvement to school-grounds, $33	92 82	
do Powell River "	do "	50 00	
do Procter "	do "	15 25	
do Renata "	do "	12 00	
do Revelstoke "	do "	8 70	
do Richmond "	do "	145 31	
do Roberts Creek "	do "	50 00	
do Rutland "	do " $48; improvement to school-grounds, $72	120 00	
do Saanich "	do "	105 05	
do Salmon Valley "	do home-gardening	3 93	
do Soda Creek "	do school-gardening	27 50	
do Sorrento "	do "	25 25	
do South Galiano "	do home-gardening	30 00	
do S Keremeos "	do school-gardening	26 05	
do S Vancouver "	do " $463; improv't to school-grounds...$142	605 00	
do Spallumcheen "	do "	188 81	
do Stewart "	do "	25 25	
do Surrey "	do " $191.64; improv't to school-grounds, $61.57		
	Agricultural Education, $100.	353 21	
do Upper Big Bar "	Grant on account of school-gardening	20 00	
do U Trout Creek "	do "	7 70	
do Vancouver City "	do "	101 15	
do Vernon "	Improvement to school-grounds, $60; Agricultural Education, $100	160 00	
do Victoria City "	Grant on account of school-gardening	134 45	
do Willow River "	do "	38 95	
do Woods Lake "	do "	12 50	
do Wynndel "	do " $16.75; improv't to school-grounds, $52.30	69 05	
Abriel, T	Rent of hall, supplies, and equipment *re* fruit-packing at Nakusp	64 60	
Baird, R H	Salary as Instructor, *re* fruit-packing at Nakusp 4 days @ $4	16 00	
Big "Y" Orchards, Ltd.	Supplies, etc., *re* fruit-packing at Grand Forks	18 00	
Blair & Armstrong	do " Maple Ridge and Haney Schools	78 75	
B C Growers, Ltd	do " Kelowna	40 30	
Britton, J E	Services as District Supervisor 8 months @ $150; expenses, $180.25	1,380 25	
Brunette Saw Mills Co.	Lumber for crating and boxing nursery stock sent to various schools	123 00	
Burrill, W	Labour *re* school nurseries	55 10	
Bursar, Prov Ment Hosp	Cartage on nursery stock	22 90	
Campbell, D E	Drugs	2 00	
C P Railway Co	Telegrams	18 84	
Cann, J A	Rental of plot, labour	17 50	
Castner, J B	Expenses as Instructor	36 50	
Central Scientific Co	Lantern-slides	3 07	
Colbert Plumbing & Heating Co, Ltd	Refitting and repairing stand-pipe and garden service	20 40	
Colonist Ptg & Pub Co, Ld	Copper half-tones and zinc line cuts	73 96	
Cowichan Merchants, Ld	Supplies *re* packing-school at Duncan	42 25	
Creston Mercantile Co.	Rent of hall, packing-school at Creston	18 00	
Day, D H	Erecting fence, Chilliwack	19 20	
Dominion Express Co	Expressage	9 75	
Dom Govt Telegraphs	Telegram	25	
Fleming, E	Lantern-slides, views	11 25	
Fleming, H	do " prints, etc	72 00	
Fraser Valley Nurseries	Nursery stock	213 50	
Gibson, J W	Travelling expenses	1,020 90	
G N W Telegraph Co	Telegrams	23 20	
Hagerman, C	Supplies *re* fruit-packing at Creston	7 50	
Hale, G W	Rental of lots for garden demonstration purposes and summer school garden	60 00	
Harwood, J	Expressage	4 75	
Hughes, R W	Supplies *re* fruit-packing at Grand Forks	9 00	
Hull, S T	Rent of Opera House, light, heat, and janitor, Grand Forks	20 00	
Hunt, E C	Haulage, lumber, nails, Grand Forks	1 50	
Kirkham & Co, Ltd, H O	Supplies *re* fruit-packing at Duncan	4 40	
Lawler, J	Expenses as Instructor	25 58	
Long & Co	Book	1 12	
Loveday, F E	Expenses as Instructor	75 93	
Menzies Hardware Co	Netting, oil, paint, etc	50 05	
Moore, C	Supplies *re* fruit-packing at Creston	30 00	
McWatters, J H	do " Penticton	9 00	
Plimley, T	Repairs, etc., to lantern	22 40	
Powell & Sons, G	Garden utensils, etc	38 46	
Readey, J C	Travelling expenses, supplies, etc	276 64	
Rennie Co, Ltd, W	Seeds, etc	17 99	
Richards, J	Teaming	36 00	
Rook, J	Supplies *re* fruit-packing at Grand Forks	4 75	
	Carried forward	.....	88,591 42

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		88,591 42
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 90.—Agricultural Education.—Concluded.		
Salmon Arm Farmer's Exchange	Supplies *re* fruit-packing at Salmon Arm	53 00	
School Garden Assoc'n of America	Membership and monthly bulletin	1 00	
Scott & Peden	Seed-potatoes, fertilizer	44 50	
Sewell, J	Expenses as Instructor	70 60	
Small, E L	Services as District Supervisor ..... 8 months @ $150; expenses, $127.15	1,327 15	
Smith Davidson & Wright, Ltd	Supplies *re* fruit-packing at Maple Ridge and Haney, Needles and Nakusp	20 00	
Stocks & Jackson	do " Creston	5 00	
Summerland Fruit Union	do " Summerland and Penticton	167 50	
Talleck, E C	Labour, school-gardens, Victoria	12 00	
Topley Co	Mazda lamp silvered	6 35	
Vernon Fruit Union	Supplies *re* fruit-packing at Vernon	44 72	
Victoria Book & Stat Co.	Books, printing, developing, etc	57 60	
Watson, P H	Making apple-packing table at Creston	1 55	
		17,157 82	
	Cr. Dominion Government Grant	15,000 00	2,157 82
	Vote No. 91.—Industrial Education.		
Coal Creek School Trus.	Salaries of Teachers, proportional grant, night-schools	56 00	
Nanaimo City "	do " "	418 00	
Nelson " "	do " "	201 60	
N Westminster " "	do " "	174 40	
Rossland " "	do " "	216 40	
South Vancouver " "	do " "	1,775 20	
Trail "	do " "	374 80	
Victoria " "	do " "	1,442 00	
Victoria " "	Proportional cost of fitting up night-school with machinery	489 50	
Abbott, E T	Domestic-science supplies, Armstrong Centre	6 45	
Can Bank of Commerce	Account H. Davies & Co., 5 cases plaster casts, heads, columns, etc	481 66	
C P R Telegraph Co.	Telegrams	3 11	
Canadian Photo Co	Prints, lantern-slides, etc	22 75	
Colonist P & P Co	Zinc line cuts	3 95	
Crow's Nest Pass Coal Co	Lighting material, labour, etc., for night-school, Coal Creek	98 47	
Elec Blue Print & Map Co	Blue-prints	11 20	
Green, A E	Portfolio "Work"	31 00	
G N W Telegraph Co	Telegram	1 28	
Kyle, J	Travelling expenses	771 97	
Martin, Finlayson & Mather, Ltd	Manual-training equipment	22 65	
Mitchell, E L	Labour, Ladner High School	14 95	
Mitchell, W C	Travelling expenses	95 80	
Moule, M C	do	107 95	
McTavish Bros	Duty, wharfage, brokerage, etc., *re* plaster casts, etc	20 33	
Plimley, T	Acetylene plant for lantern	12 50	
Townsend, H H	Labour and material, making table, table-tops, etc., Coal Creek	16 00	
Victoria Book & Stat Co.	Books, etc	9 45	
			6,879 37
	Vote No. 92.—Per Capita Grant to City, Municipality, and Rural School Districts.		
	CITIES OF THE FIRST CLASS.		
New Westminster	71 Teachers	32,468 35	
Vancouver	402 do	175,654 30	
Victoria	162 do	71,990 00	
	Total, $280,112.65		
	CITIES OF THE SECOND CLASS.		
Chilliwack	14 Teachers	6,586 65	
Cranbrook	14 do	7,020 00	
Fernie	23 do	11,743 35	
Grand Forks	12 do	5,980 00	
Kamloops	13 do	6,760 00	
Kelowna	12 do	5,850 00	
Ladysmith	13 do	6,760 00	
Nanaimo	31 do	16,800 00	
Nelson	24 do	11,656 65	
Prince Rupert	18 do	9,013 35	
Revelstoke	19 do	9,620 00	
Rossland	19 do	9,533 30	
Vancouver, North	27 do	13,390 00	
Vernon	17 do	8,320 00	
	Total, $129,033.30		
	Carried forward		97,628 61

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	97,628 61
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 92.—Per Capita Grant to City, Municipality, and Rural School Districts.—Continued.		
	CITIES OF THE THIRD CLASS.		
Alberni	2 Teachers	1,130 00	
Armstrong	10 do	5,461 65	
Courtenay	3 do	1,695 00	
Cumberland	11 do	8,118 90	
Duncan	9 do	4,598 65	
Enderby	5 do	2,825 00	
Greenwood	4 do	2,024 60	
Kaslo	6 do	4,290 00	
Merritt	8 do	4,520 00	
Phœnix	5 do	2,825 00	
Port Alberni	4 do	2,256 25	
Port Coquitlam	6 do	3,390 00	
Port Moody	5 do	2,777 90	
Prince George	4 do	2,260 00	
Salman Arm	4 do	2,260 00	
Sandon	1 do	565 00	
Slocan	2 do	1,130 00	
Trail	14 do	5,979 55	
Sandon	Grant on account of outside pupils to June 30th, 1916	235 00	
	Total, $58,342.50		
	RURAL MUNICIPALITIES.		
Burnaby	42 Teachers	24,746 65	
Chilliwack	26 do	14,836 60	
Coldstream	2 do	1,160 35	
Coquitlam	7 do	4,011 85	
Cowichan, North	9 do	5,171 65	
Delta	14 do	7,926 60	
Esquimalt	18 do	10,409 85	
Kent	7 do	4,055 10	
Langley	22 do	12,210 00	
Maple Ridge	17 do	9,811 50	
Matsqui	18 do	10,044 10	
Mission	16 do	9,484 65	
Oak Bay	16 do	8,330 00	
Peachland	4 do	2,320 20	
Penticton	15 do	7,829 90	
Pitt Meadows	2 do	1,160 40	
Point Grey	38 do	20,493 30	
Richmond	18 do	10,440 00	
Saanich	42 do	24,067 50	
Salmon Arm	6 do	3,480 00	
Spallumcheen	7 do	4,060 20	
Sumas	6 do	3,480 00	
Summerland	9 do	5,026 60	
Surrey	26 do	14,761 00	
Vancouver, North	12 do	6,766 60	
do South	138 do	77,439 10	
do West	5 do	2,706 60	
	Total, $306,230.30		
	RURAL SCHOOL DISTRICTS.		
Sutherland, A	Teacher, Abbotsford, 4 months @ $48.35	193 40	
Dougherty, A L	do " 3 " 48.35	145 05	
Murphy, F L	do " 4 " 23 d. 48.35	230 45	
Thomas, R A	do " 2nd Division 4 " 48.35	193 40	
Simlett, J L	do " " 5 " 48.35	241 75	
Percival, E M	do " " 3 " 48.35	145 05	
Green, N E	do " 3rd Division 4 " 46.40	185 60	
Thomas, C A	do " " 1 " 46.40	46 40	
Gillen, A S	do " " 4 months @ $46.40; 3 " 48.35	330 65	
Laxton, M F	do " 4th Division 9 " 46.40	417 60	
Simlett, J L	do " " 3 " 46.40	139 20	
Cullen, A	do Ainsworth 4 " 48.35	193 40	
Hambley, G M	do " 8 " 48.35	386 80	
Faircloth, L G	do Alert Bay 4 " 48.35	193 40	
Haslam, M	do " 2 " 48.35	96 70	
Hartin, M	do " 6 " 48.35	290 10	
Beattie, M	do Anaconda 12 " 48.35	580 20	
Marriage, F T	do Arrowhead 12 " 48.35	580 20	
Ashworth, R W	do Arrow Park, East 12 " 48.35	580 20	
Selman, S	do Ashcroft 4 " 48.35	193 40	
McDonald, G	do " 3 " 20 d. 48.35	177 30	
Gordon, R G	do " 3 " 48.35	145 05	
	Carried forward	.....	97,628 61

TO WHOM PAID	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	97,628 61
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 92.—Per Capita Grant to City, Municipality, and Rural School Districts.—Continued.		
	RURAL SCHOOL DISTRICTS.—*Continued.*		
O'Hearn, A E	Teacher, Ashcroft, 2nd Division ..... 4 months @ $ 48.35	193 40	
Harlow, L B	do " " ..... 8 " 48.35	386 80	
Wade, M L	do " 3rd Division ..... 4 " 48.35	193 40	
Donaghy, F I	do " " ..... 5 " 48.35	241 75	
Sutherland, J M	do " " ..... 3 " 48.35	145 05	
James, T A	do Atlin ..... 12 " 100	1,200 00	
Stephens, R M	do Baynes Lake ..... 4 " 48.35	193 40	
Cartwright, G C	do " ..... 8 " 48.35	386 80	
Woodcock, T	do Beaver Point ..... 4 " 47.50	190 00	
Macfie, M T	do " ..... 8 " 47.50	380 00	
Hobbs, B M	do Begbie ..... 1 " 48.35	48 35	
Middleton, E E	do " ..... 3 " 48.35	145 05	
Gregory, G A	do " ..... 6 " 17 d. 48.35	317 50	
Pim, L M	do Beresford ..... 4 " 48.35	193 40	
Moore, S	do " ..... 5 " 48.35	241 75	
Ferguson, A	do " ..... 2 " 17 d. 48.35	123 20	
Gyves, M C	do Burgoyne Bay ..... 4 " 48.35	193 40	
Marling, L H	do " ..... 8 " 48.35	386 80	
Jones, A P	do Burtondale ..... 4 " 48.35	193 40	
Newman, R D	do " ..... 8 " 48.35	386 80	
Robinson, S T A	do Bull River Bridge ..... 3 " 48.35	145 05	
Handy, M I	do Cache Creek ..... 9 " 48.35	435 15	
Gillis, F E	do " ..... 3 " 48.35	145 05	
Dundas, L E	do Campbell Creek ..... 9 " 48.35	435 15	
Halliday, A M	do " ..... 3 " 48.35	145 05	
McLennan, G	do Campbell River ..... 4 " 48.35	193 40	
Williams, C E	do " ..... 8 " 48.35	386 80	
Whitehead, E	do Canyon City ..... 4 " 48.35	193 40	
McLean, E M	do " ..... 8 " 48.35	386 80	
Newbauer, R G	do Carson ..... 4 " 48.35	193 40	
Morrison, M E	do " ..... 8 " 48.35	386 80	
Nutt, G	do Cascade ..... 4 " 48.35	193 40	
Jones, A P	do " ..... 8 " 48.35	386 80	
Hartley, A A	do Chase ..... 4 " 48.35	193 40	
Beal, W P	do " ..... 8 " 48.35	386 80	
Kinley, T J	do " 2nd Division ..... 4 " 48.35	193 40	
Gilchrist, A M	do " " ..... 8 " 48.35	386 80	
O'Hearn, M C	do " 3rd Division ..... 12 " 48.35	580 20	
Sutton, W G	do Clayoquot ..... 12 " 48.35	580 20	
Smith, M E L	do Clinton ..... 12 " 48.35	580 20	
Keough, J	do Coal Creek ..... 12 " 48.35	580 20	
Townsend, W M	do " 2nd Division ..... 12 " 48.35	580 20	
Keith, K I	do " 3rd Division ..... 7 " 48.35	338 45	
Bell, C	do " " ..... 5 " 48.35	241 75	
McDowall, M J	do Columbia Gardens ..... 4 " 48.35	193 40	
Logan, M E	do Colwood ..... 4 " 48.35	193 40	
Jones, R	do " ..... 8 " 48.35	386 80	
Breadon, L H M	do Corbin ..... 4 " 48.35	193 40	
Barepard, V C	do " ..... 5 " 48.35	241 75	
Hardy, A L	do " ..... 3 " 48.35	145 05	
Buss, A J	do Crawford Bay ..... 4 " 48.35	193 40	
Keenan, M M	do " ..... 8 " 48.35	386 80	
Keech, E	do Crescent Valley ..... 12 " 48.35	580 20	
Masterton, R B	do Creston, Superior ..... 12 " 48.35	580 20	
de Macedo, W D	do " Central ..... 4 " 48.35	193 40	
MacKenzie, M	do " " ..... 8 " 48.35	386 80	
Hurry, B A	do " 3rd Division ..... 12 " 48.35	580 20	
Hardman, B	do " 4th Division ..... 12 " 48.35	580 20	
Miller, M M	do Deep Cove ..... 4 " 48.35	193 40	
Sullivan, K	do " ..... 8 " 48.35	386 80	
Hood, L	do Denman Island ..... 12 " 48.35	580 20	
Mills, S A	do Dewdney ..... 12 " 48.35	580 20	
Halpenny, M G	do Duck Range ..... 4 " 45	180 00	
McLennan, A M	do " ..... 5 months @ $45; 3 " 48.35	370 05	
Smith, C	do Edith Lake ..... 4 " 48.35	193 40	
Menzies, R M	do " ..... 5 " 48.35	241 75	
Nicholson, A M	do Elko ..... 12 " 48.35	580 20	
Carr, E N	do Ellison ..... 9 " 48.35	435 15	
Tully, N D	do " ..... 3 " 48.35	145 05	
Dick, E J	do Enderby North ..... 4 " 48.35	193 40	
Borden, O D	do " " ..... 5 " 48.35	241 75	
Thomas, M C	do " " ..... 3 " 48.35	145 05	
Streeter, C	do Erickson ..... 2 " 48.35	96 70	
Dow, M E	do " ..... 10 " 48.35	483 50	
Gay, V D	do Essington ..... 1 " 48.35	48 35	
Rigby, B G	do " ..... 2 " 48.35	96 70	
	Carried forward	.....	97,628 61

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	... .	97,628 61
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 92.—Per Capita Grant to City, Municipality, and Rural School Districts.—Continued.		
	RURAL SCHOOL DISTRICTS.—*Continued.*		
Mayoosky, M R	Teacher, Essington ... 8 months @ $48.35	386 80	
Lewis, M L	do Field ... 4 " 48.35	193 40	
Arnold, E M	do " ... 3 " 48.35	145 05	
Roy, E	do " ... 2 " 48.35	96 70	
Hardy, M C	do " ... 3 " 48.35	145 05	
Curley, E H	do Fort Steele ... 4 " 48.35	193 40	
Mason, S T	do " ... 5 " 48.35	241 75	
Fraser, D R	do " ... 3 " 48.35	145 05	
Bate, A M	do " 2nd Division ... 12 " 48.35	580 20	
Batchelor, M T	do Fruitland ... 4 " 48.35	193 40	
Dundas, L E	do " ... 8 " 48.35	386 80	
Penzer, G M	do " 2nd Division ... 4 " 48.35	193 40	
Dandy, B E	do " " ... 8 " 48.35	386 80	
Garrard, H C	do Fruitvale ... 12 " 48.35	580 20	
Porter, B B	do Gabriola, North ... 4 " 47.50	190 00	
Ritchie, C	do " " .... 3 months 26 days @ $47.50; 3 " 48.35	328 70	
Mill, J A G	do " South ... 12 " 48.35	580 20	
MacDonald, R M	do Glenbank ... 4 " 48.35	193 40	
Calbick, I	do " ... 8 " 48.35	386 80	
Johnson, M H	do Glenemma ... 4 " 48.35	193 40	
Marshall, M J	do " ... 8 " 48.35	386 80	
Keatley, S E	do Golden, High ... 12 " 48.35	580 20	
Lindells, R	do " Central ... 12 " 48.35	580 20	
Mitchell, M W	do " 2nd Division ... 4 " 48.35	193 40	
Dick, E J	do " " ... 8 " 48.35	386 80	
Riley, A J	do " 3rd Division ... 12 " 48.35	580 20	
Boake, R E	do " 4th Division ... 4 " 48.35	193 40	
Yolland, N M C	do " " ... 8 " 48.35	386 80	
Middleton, M E	do Goldstream ... 12 " 48.35	580 20	
Fotheringham, J L	do Granby Bay ... 8 " 48.35	386 80	
Bower, D G	do " 2nd Division ... 8 " 48.35	386 80	
Haslett, K F	do Granby Bay Mine ... 7 " 48.35	338 45	
Harman, M C	do Grande Prairie ... 4 " 47.50	190 00	
New, W M	do " ... 5 months @ $47.50; 3 " 48.35	382 55	
Kittleson, H S	do Grindrod ... 4 " 48.35	193 40	
Sutton, C	do " ... 8 " 48.35	386 80	
Sivertz, H G	do Happy Valley ... 4 " 48.35	193 40	
McKenzie, M H	do " ... 8 " 48.35	386 80	
Tidy, G A	do Hatzic Prairie ... 9 " 47.50	427 50	
Bettes, F G	do " ... 3 " 47.50	142 50	
Tompkins, I	do Hedley, Superior ... 4 " 48.35	193 40	
Todd, T	do " " ... 5 " 48.35	241 75	
Herkins, H M	do " " ... 3 " 48.35	145 05	
Halliday, K C	do " 2nd Division ... 4 " 48.35	193 40	
McKinnon, A	do " " ... 5 " 48.35	241 75	
Bordin, O D	do " " ... 3 " 48.35	145 05	
McKinnon, A	do " 3rd Division ... 4 " 48.35	193 40	
Inkman, L I	do " " ... 3 " 48.35	145 05	
Mellor, A E	do Hope ... 4 " 48.35	193 40	
Urquhart, F M	do " ... 8 " 48.35	386 80	
Inkman, L I	do " 2nd Division ... 4 " 48.35	193 40	
Mercer, F C	do " " ... 8 " 48.35	386 80	
McDonald, B S	do Howe Sound ... 4 " 48.35	193 40	
Agar, A J	do " ... 8 " 48.35	386 80	
White-Edwards, N	do " 2nd Division ... 6 " 48.35	290 10	
Doherty, W	do " " ... 3 " 48.35	145 05	
Clower, G B	do " " ... 3 " 48.35	145 05	
Eades, W J	do Hume ... 12 " 48.35	580 20	
Celle, P T D	do " 2nd Division ... 4 " 48.35	193 40	
Williams, B	do " " ... 8 " 48.35	386 80	
Wolverton, D A	do " 3rd Division ... 12 " 48.35	580 20	
Coates, C A	do " 4th Division ... 12 " 48.35	580 20	
MacKay, K L	do " 5th Division ... 12 " 48.35	580 20	
Smith, E B	do Jaffray ... 12 " 48.35	580 20	
McDonald, F E	do Kaleden ... 4 " 48.35	193 40	
Craig, G E	do " ... 1 " 48.35	48 35	
Henderson, M B	do Kelowna, North ... 4 " 48.35	193 40	
Sutton, I	do " " ... 8 " 48.35	386 80	
Prescott, T	do Keremeos ... 12 " 48.35	580 20	
Ramsay, M A	do " 2nd Division ... 9 " 48.35	435 15	
Moore, C	do " " ... 3 " 48.35	145 05	
Fairbairn, M McI	do Kitsumgallum ... 4 " 48.35	193 40	
Lanfear, D	do " ... 5 " 48.35	241 75	
Ferguson, H A	do " ... 3 " 48.35	145 05	
Mercer, E A	do Langford ... 12 " 48.35	580 20	
Wiegand, E	do Lillooet ... 4 " 48.35	193 40	
	Carried forward	.....	97,628 61

TO WHOM PAID.	FOR WHAT SERVICE.				$ cts.	$ cts
	Brought forward					97,628 61
	VIII.—EDUCATION.—*Continued.*					
	Vote No. 92.—Per Capita Grant to City, Municipality, and Rural School Districts.—Continued.					
	RURAL SCHOOL DISTRICTS.—*Continued.*					
Moscrop, E	Teacher, Lillooet	5	months @	$48.35	241 75	
Poole, K S	do "	3	"	48.35	145 05	
Graham, J	do Long Lake	12	"	48.35	580 20	
Campbell, J M	do Louis Creek	4	"	48.35	193 40	
Gowanlock, E J	do "	8	"	48.35	386 80	
Matheson, M R	do Lumby	4	"	48.35	193 40	
Gilchrist, N C	do "	8	"	48.35	386 80	
Raymer, P W	do " 2nd Division ..... 9 months @ $47.50;	3	"	48.35	572 55	
Buss, M M	do Lund	12	"	48.35	580 20	
Whitworth, E B	do Lytton	12	"	48.35	580 20	
Greenwood, M	do Malakwa	4	"	48.35	193 40	
Fraser, M J	do "	5	"	48.35	241 75	
Clark, M	do "	3	"	48.35	145 05	
Cary, M O B	do Mara	4	"	48.35	193 40	
Page, M H	do "	8	"	48.35	386 80	
Cary, M O B	do " 2nd Division	8	"	48.35	386 80	
Magee, S A	do Martin's Prairie	9	"	48.35	435 15	
Ritchie, H M	do "	3	"	48.35	145 05	
King, J E	do Marysville	4	"	48.35	193 40	
Duncan, G E	do "	5	"	48.35	241 75	
Macdonald, G	do "	3	"	48.35	145 05	
Emmott, W	do Masset	4	"	48.35	193 40	
Grubb, R N	do "	5	"	48.35	241 75	
Goodyear, E M	do Mayne Island	12	"	48.35	580 20	
Jones, R	do Metchosin	4	"	48.35	193 40	
Sargent, B H	do "	8	"	48.35	386 80	
Troughton, W	do Michel	4	"	48.35	193 40	
Foley, W L	do "	8	"	48.35	386 80	
Hodge, M	do " 2nd Division	4	"	48.35	193 40	
Wade, M L	do " "	8	"	48.35	386 80	
Johnson, M E	do " 3rd Division	4	"	48.35	193 40	
Monkley, S B	do " "	6	" 26 d.	48.35	332 00	
Bates, D A	do Michel, New	4	"	48.35	193 40	
Cameron, R K	do "	7	" 29 d.	48.35	383 65	
Barnhill, M G	do " 2nd Division	4	"	48.35	193 40	
Long, E M	do " "	8	"	48.35	386 80	
Baxendale, L M	do " 3rd Division	12	"	48.35	580 20	
Taylor, M E	do " 4th Division	12	"	48.35	580 20	
Stanton, M	do Midway	4	"	48.35	193 40	
Robbins, F M	do "	6	" 20 d.	48.35	322 35	
Ray, E M	do Mission Creek	4	"	48.35	193 40	
McArthur, H M	do "	6	" 25 d.	48.35	330 40	
Noble, A	do Monte Creek	4	"	48.35	193 40	
Moser, M E	do "	5	"	48.35	241 75	
McKenna, H T	do "	2	" 15 d.	48.35	120 10	
Warden, R C	do Nakusp	12	"	48.35	580 20	
Chandler, M	do " 2nd Division	12	"	48.35	580 20	
Rayner, T H	do Naramata	12	"	48.35	580 20	
Walker, M H	do " 2nd Division	12	"	48.35	580 20	
Muir, J N	do New Denver	3	"	48.35	145 05	
Girling, R L	do "	8	"	48.35	386 80	
Bampton, L	do " 2nd Division	4	"	48.35	193 40	
Doherty, E M	do " "	8	"	48.35	386 80	
Fadden, M I	do Nicola	12	"	48.35	580 20	
Carr, N M	do " Lower	4	"	48.35	193 40	
Rumbely, C M	do " "	8	"	48.35	386 80	
Mellish, W E	do Nicomen	9	"	48.35	435 15	
Moscrop, E	do "	3	"	48.35	145 05	
Wille, E A	do " North	4	"	48.35	193 40	
Macphail, A M	do " "	5	"	48.35	241 75	
Paterson, M B	do " "	3	"	48.35	145 05	
Langslow, L E	do North Bend	4	"	48.35	193 40	
James, L A	do "	8	"	48.35	386 80	
Robinson, C A A	do " 2nd Division	12	"	48.35	580 20	
Inskip, C H	do North Thompson	8	"	48.35	386 80	
Hodgson, E L	do Notch Hill	4	"	48.35	193 40	
Gagnon, J	do "	8	"	48.35	386 80	
Hamilton, A M	do " 2nd Division	9	"	48.35	435 15	
Hayes, L	do " "	3	"	48.35	145 05	
Hunter, A M	do Okanagan	4	"	48.35	193 40	
Simpson, S I	do "	2	"	48.35	96 70	
Hereros, N	do "	5	" 25 d.	48.35	280 75	
Hunter, G M	do "	6	days	48.35	9 35	
Craig, G B	do " Falls	4	months	48.35	193 40	
McKenna, R	do " "	5	"	48.35	241 75	
Howard, S F	do " "	2	" 3 d.	48.35	101 40	
	Carried forward					97,628 61

TO WHOM PAID.	FOR WHAT SERVICE.				cts.	$ cts.
	Brought forward				.....	97,628 61
	VIII.—EDUCATION.—*Continued.*					
	Vote No. 92.—Per Capita Grant to City, Municipality, and Rural School Districts.—Continued.					
	RURAL SCHOOL DISTRICTS.—*Continued.*					
Fraser, H P	Teacher, Okanagan Landing	4	months @	$48.35	193 40	
Hall, A V	do " "	8	"	48.35	386 80	
Evans, F R	do " " 2nd Division	4	"	48.35	193 40	
Jardine, J C	do " South	12	"	48.35	580 20	
Dobson, B M	do Otter Point	4	"	48.35	193 40	
Hamilton, I D	do "	8	"	48.35	386 80	
Irvine, B E	do Oyama	12	"	48.35	580 20	
Jones, H D	do " 2nd Division	1	" 10 d.	48.35	67 15	
Morcrop, E	do Pender Island	4	"	48.35	193 40	
MacDonald, D R	do "	8	"	48.35	386 80	
Stiven, A M	do Powell River, 1st Division	9	"	48.35	435 15	
Murray, H E	do " "	3	"	48.35	145 05	
Lauchlan, M A	do " 2nd Division	12	"	48.35	580 20	
Weetman, H F	do " 3rd Division	4	"	48.35	193 40	
Wilkes, A C	do " "	4	"	48.35	193 40	
Brundreth, E I	do " "	1	"	48.35	48 35	
McKnight, S E	do " "	3	"	48.35	145 05	
Ternan, L H	do " 4th Division	3	"	48.35	145 05	
Stephen, L M	do Princeton	4	"	48.35	193 40	
Beattie, H E	do "	8	"	48.35	386 80	
Blake, H J	do " 2nd Division	4	"	48.35	193 40	
Murray, C P	do " "	8	"	48.35	386 80	
Warne, F	do " 3rd Division	8	"	48.35	386 80	
Woods, H K	do Procter	9	" 14 d.	48.35	457 00	
McKay, M	do "	2	" 17 d.	48.35	123 20	
Brown, D M	do Quesnel, Central	6	" 15 d.	48.35	313 50	
Maclure, J A	do " "	5	" 16 d.	48.35	266 70	
Ashton, N E	do " 2nd Division	9	"	48.35	435 15	
Nicholson, E B	do " "	3	"	48.35	145 05	
Fraser, M J	do Robson	4	"	48.35	193 40	
Johnson, W C	do "	8	"	48.35	386 80	
Murray, D F	do Rocky Point	4	"	48.35	193 40	
Chrow, M	do "	8	"	48.35	386 80	
Dandy, B E	do Rose Hill	4	"	48.35	193 40	
Winkel, A M	do "	8	"	48.35	386 80	
Herkins, H M	do Rutland	4	"	48.35	193 40	
Quinn, S R	do "	8	"	48.35	386 80	
Faris, K M	do " 2nd Division	4	"	48.35	193 40	
Magee, E L	do " "	8	"	48.35	386 80	
Magee, E L	do " 3rd Division	4	"	48.35	193 40	
Faris, K M	do " "	8	"	48.35	386 80	
Morley, E M	do Saanich, North	12	"	48.35	580 20	
Harvey, A L	do Salmo	4	"	48.35	193 40	
Proctor, E S	do "	5	"	48.35	241 75	
Scutt, J A	do "	3	"	48.35	145 05	
Dougherty, H P	do " 2nd Division	12	"	48.35	580 20	
Vicars, B B	do Savona	4	"	48.35	193 40	
House, G I	do "	8	"	48.35	386 80	
Irwin, I D G	do Shuswap	12	"	48.35	580 20	
Chute, V E	do Sidney	4	"	48.35	193 40	
Hay, D J	do "	8	"	48.35	386 80	
Hall, F E	do " 2nd Division	4	"	48.35	193 40	
Terry, I	do " "	8	"	48.35	386 80	
Glen, M F	do " 3rd Division	4	"	48.35	193 40	
Ross, W J	do " "	8	"	48.35	386 80	
Monteith, B	do Silver Creek	2	"	48.35	96 70	
Sparkes, E	do Silverton	12	"	48.35	580 20	
Wilmot, K M	do " 2nd Division	12	"	48.35	580 20	
Horn, M P	do Simpson	9	"	48.35	435 15	
Raftery, R A	do "	3	"	48.35	145 05	
Boomer, M	do Slocan Junction	4	"	48.35	193 40	
Clyde, G L	do "	8	"	48.35	386 80	
Giberson, E M	do Sooke	4	"	48.35	193 40	
McLennan, G G	do "	8	"	48.35	386 80	
Sykes, W A	do Spences Bridge	4	"	48.35	193 40	
Steen, O C	do "	5	"	48.35	241 75	
Moore, S	do "	2	" 14 d.	47.50	117 00	
Young, F W	do Squamish	12	"	48.35	580 20	
Smith, L L	do " Lower	8	"	48.35	386 80	
Lawson, G J	do " " 2nd Division	8	"	48.35	386 80	
Ball, B T	do Tappen Siding	9	"	48.35	435 15	
Sterling, E M	do "	3	"	48.35	145 05	
Quinn, S R	do Vananda	4	"	48.35	193 40	
Code, S W	do "	8	"	48.35	386 80	
Roy, J	do " 2nd Division	4	"	48.35	193 40	
Brown, E M	do " "	8	"	48.35	386 80	
	Carried forward				.....	97,628 61

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	97,628 61
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 92.—Per Capita Grant to City, Municipality, and Rural School Districts.—Concluded.		
	RURAL SCHOOL DISTRICTS.—*Concluded.*		
Burns, F A H	Teacher, Vesuvius ... 12 months @ $48.35	580 20	
Dodds, A J W	do " North ... 12 " 48.35	580 20	
MacDiarmid, J	do Waldo ... 5 " 48.35	241 75	
Thompson, M G	do " ... 7 " 48.35	338 45	
Irving, G J	do " 2nd Division ... 4 " 48.35	193 40	
Thompson, M G	do " " ... 1 " 48.35	48 35	
Hamill, V A	do " " ... 7 " 48.35	338 45	
Jeffrey, J I	do Wardner ... 4 " 48.35	193 40	
Martin, L	do " ... 8 " 48.35	386 80	
Etter, H C	do Westbank Townsite ... 4 " 48.35	193 40	
Weeks, F E	do " ... 8 " 48.35	386 80	
Smith, M	do Woods Lake ... 4 " 48.35	193 40	
Hanna, M V	do " ... 8 " 48.35	386 80	
White, S D	do Wycliffe ... 4 " 48.35	193 40	
Fleming, E S	do " ... 5 " 48.35	241 75	
Manzer, H L	do " ... 3 " 48.35	145 05	
Oliver, E T	do Ymir ... 4 " 48.35	193 40	
Nicholls, A R	do " ... 8 " 48.35	386 80	
	Total, $105,044.15		878,762 90
	Vote No. 93.—Salaries of Teachers in Assisted Schools.		
Moser, M E	Teacher, Albert Canyon ... 4 months @ $73	292 00	
Vanetta, A E	do " ... 8 " 73	584 00	
Greenway, M R	do Albert Head ... 12 " 60	720 00	
Briand, A	do Alexandra ... 9 " 90	810 00	
Prefontaine, C	do " ... 3 " 90	270 00	
Bromley, M	do Alice Arm ... 8 " 75	600 00	
Dougherty, A L	do Alice Siding ... 4 " 80	320 00	
King, J E	do " ... 8 " 80	640 00	
Ivens, E E	do Allen Grove ... 4 " 65	260 00	
Turner, C	do " ... 5 " 65	325 00	
Travis, V	do " ... 3 " 65	195 00	
Peters, F E	do Anarchist Mountain ... 12 " 75	900 00	
Vipond, C M	do Annable ... 4 " 75	300 00	
Litch, K L	do " ... 8 " 75	600 00	
Munro, J L	do Appledale ... 4 " 75	300 00	
Hamar, M	do " ... 5 " 75	375 00	
Murray, M E	do " ... 3 " 75	225 00	
Job, F	do Arrow Park West ... 12 " 75	900 00	
Terhune, L M	do Ashton Creek ... 9 " 73	657 00	
Vickers, L E	do " ... 3 " 73	219 00	
Newman, O E	do Aspen Grove ... 4 " 75	300 00	
Hislop, J	do " ... 7 " 25 d. 75	585 50	
Dyer, E I	do Athalmer ... 12 " 90	1,080 00	
Girling, R H L	do Balfour ... 4 " 80	320 00	
Whitebread, P G	do " ... 8 " 80	640 00	
Welbanks, G E	do Balmoral ... 12 " 70	840 00	
Lewis, N B	do Bamfield ... 2 " 9 d. 70	160 30	
Lawson, G	do Barkerville ... 4 " 95	380 00	
Cowan, G R	do " ... 8 " 95	760 00	
Warren, E	do Barnston Island ... 12 " 65	780 00	
Carss, A	do Barriere River ... 4 " 75	300 00	
Pugh, E M	do " ... 8 " 75	600 00	
Cameron, W	do Barriere Valley ... 12 " 75	900 00	
MacKenzie, O B	do Barriere Power-house ... 6 " 70	420 00	
Nesbitt, D	do Bear Creek ... 9 " 65	585 00	
Renwick, M I	do " ... 3 " 65	195 00	
Nicholls, A R	do Beaton ... 4 " 75	300 00	
McGeer, K	do " ... 8 " 75	600 00	
Lettice, E M N	do Beaver Lake ... 12 " 85	1,020 00	
Paul, A	do Belford ... 4 " 75	300 00	
Chastenay, V A	do " ... 8 " 75	600 00	
Hallowes, K B	do Bella Coola ... 12 " 80	960 00	
Reed, H M	do " Lower ... 4 " 80	320 00	
Cameron, C A	do " " ... 8 " 80	640 00	
Reilly, E R	do Berrydale ... 4 " 75	300 00	
Dewar, A	do " ... 6 " 6 d. 75	465 00	
Simms, E P	do Big Bar ... 9 " 90	810 00	
Bertrand, C	do " Upper ... 12 " 90	1,080 00	
Reed, H M	do " Mountain ... 5 " 90	450 00	
Clark, E G	do " " ... 20 days 90	58 05	
Somerville, C	do Big Eddy ... 4 months 78	312 00	
Richards, G	do " ... 8 " 78	624 00	
	Carried forward	.....	976,391 51

TO WHOM PAID.		FOR WHAT SERVICE.				$ cts.	$ cts.
		Brought forward				.....	976,391 51
		VIII.—EDUCATION.—*Continued.*					
		Vote No. 93.—Salaries of Teachers in Assisted Schools.—Continued.					
Malcolm, A E	Teacher,	Blaeberry	9	months @	$75	675 00	
Wadman, M J	do	"	3	"	75	225 00	
Marshall, C	do	Blueberry Creek	5	"	65	325 00	
Mackay, C M	do	Blind Bay	12	"	65	780 00	
Barton, J I	do	Bonaparte Valley	12	"	75	900 00	
Wallace, L E	do	Boswell	12	"	75	900 00	
Kerr, A L	do	Boundary Falls	4	"	75	300 00	
Kerr, E J	do	"	8	"	75	600 00	
Handy, L	do	Bowen Island	4	"	68	272 00	
Shaw, H J	do	"	7	" 11 d.	68	500 15	
Pedlow, G L	do	"	20	days	68	43 85	
Moran, L E	do	Bowie	9	months	65	585 00	
Stubbs, G	do	"	2	" 23 d.	65	178 20	
Wyrill, I	do	Box Lake	12	"	75	900 00	
Taylor, R W	do	Bridesville	4	"	75	300 00	
Blake, M N	do	"	6	" 18 d.	75	495 00	
Cavers, A	do	Brilliant	4	"	85	340 00	
Middleton, E E	do	"	5	"	85	425 00	
Spencer, A J	do	"	3	"	85	255 00	
Morrow, M M	do	" 2nd Division	8	"	85	680 00	
Clark, E F	do	Brisco	12	"	85	1,020 00	
Urquhart, F M	do	Britannia Beach	4	"	80	320 00	
Barron, F J	do	"	8	"	80	640 00	
McKnight, S E	do	" 2nd Division	9	"	60	540 00	
Gordon, R	do	" "	3	"	60	180 00	
Simpson, C W	do	Britannia Mine	4	"	65	260 00	
Levy, T E	do	"	8	"	65	520 00	
Robinson, S L A	do	Bull River Bridge	9	"	80	720 00	
Gowans, C M	do	Campbell Range	12	"	70	840 00	
Foy, A E	do	Canford	4	"	60	240 00	
Freeman, L M	do	"	8	"	60	480 00	
Stewart, H	do	Canim Lake	3	"	75	225 00	
Comins, C M	do	Cape Scott	4	"	80	320 00	
Pullinger, P	do	"	8	"	80	640 00	
Warner, P E	do	Cariboo	2	" 10 d.	85	197 40	
Graham, A R	do	Carlin Siding	12	"	75	900 00	
Laing, F W	do	Cartier	12	"	90	1,080 00	
Leavens, H K	do	Castledale	4	"	75	300 00	
MacDonald, S B	do	"	8	"	75	600 00	
Timaeus, S G	do	Castlegar	12	"	80	960 00	
O'Hearn, E A	do	Chase Creek	4	"	65	260 00	
Botting, L J	do	"	5	"	65	325 00	
Townsend, M E	do	"	3	"	65	195 00	
O'Hearn, E A	do	" Lower	5	"	65	325 00	
O'Neill, S	do	" "	3	"	65	195 00	
McDougall, D	do	Chaumox	9	"	60	540 00	
Manning, Z M	do	"	3	"	60	180 00	
Towers, E F W	do	Chief Lake	12	"	80	960 00	
Hoy, N B	do	Chilco	4	"	80	320 00	
Moore, W S	do	"	8	"	80	640 00	
Colpitts, L M	do	Chimney Creek	4	"	85	340 00	
Bowe, M A	do	"	8	"	85	680 00	
Morrison, M T	do	Christina Lake	4	"	70	280 00	
Foy, A E	do	"	8	"	70	560 00	
Grenfell, M E	do	Chu Chua	4	"	75	300 00	
Crandlemire, N H	do	"	8	"	75	600 00	
Tait, M F	do	Clearwater	12	"	75	900 00	
Walker, V M	do	Clo-oose	4	"	65	260 00	
King, S N	do	"	5	"	65	325 00	
Grubb, K N	do	"	3	"	65	195 00	
Fleming, E S	do	Coalmont	4	"	75	300 00	
Richardson, B	do	"	5	"	75	375 00	
Henderson, D M	do	Cokato	4	"	75	300 00	
Allen, J C	do	"	6	" 25 d.	75	512 50	
Robinson, E	do	Columbia Gardens	6	"	75	450 00	
Barchard, V C	do	" Park	4	"	75	300 00	
Dick, A J	do	" "	5	"	75	375 00	
Rath, L G	do	Concord	9	"	65	585 00	
Kittleson, H S	do	"	2	" 20 d.	65	171 95	
Fairbairn, I C	do	Copper City	12	"	95	1,140 00	
Fessenden, K	do	Copper Creek	9	"	75	675 00	
May, C R	do	"	1	" 16 d.	75	117 85	
Clotworthy, A J	do	Copper Mountain (formerly Voigt Camp)	7	"	70	490 00	
Lettice, K M	do	Cortes Island	12	"	75	900 00	
Blackberg, A	do	Craigellachie	12	"	70	840 00	
Mouat, J	do	Cranberry Marsh	12	"	70	840 00	
Wadman, M J	do	Crawford Creek	4	"	75	300 00	
Vipond, C	do	"	8	"	75	600 00	
Faulkner, P D	do	Criss Creek	4	"	65	260 00	
		Carried forward				.....	976,391 51

TO WHOM PAID.		FOR WHAT SERVICE.				$ cts.	$ cts.
		Brought forward					976,391 51
		VIII.—EDUCATION.—*Continued.*					
		Vote No. 93.—Salaries of Teachers in Assisted Schools.—Continued.					
Findlay, L E	Teacher,	Criss Creek	5	months @	$65	325 00	
Johnston, A	do	"	12	days	65	25 15	
Douglas, K H	do	"	2	months	65	130 00	
Harris, O M	do	Crowsnest	7	" 1 d.	80	562 60	
McKenzie, J A	do	Cultus Lake	9	"	65	585 00	
McRae, J B	do	"	3	"	65	195 00	
Knott, M G	do	Curzon	4	"	75	300 00	
Ilsley, G B	do	"	8	"	75	600 00	
Reece, H B	do	Darcy Mountain	4	"	70	280 00	
Troughton, W	do	"	7	"	70	490 00	
Todrick, R A	do	Deadwood	4	"	70	280 00	
Ferguson, E M	do	"	8	"	70	560 00	
Brash, D	do	Deep Creek	4	"	65	260 00	
Wade, E	do	"	8	"	65	520 00	
Richardson, B	do	Deer Park	4	"	75	300 00	
Culley, A	do	"	8	"	75	600 00	
Murchison, A A	do	Demars, West	12	"	75	900 00	
Todd, I D	do	Discovery	12	"	100	1,200 00	
Beal, W P	do	Dragon Lake	4	"	90	360 00	
Sykes, W A M	do	"	8	"	90	720 00	
McIntyre, G	do	Duhamel	12	"	75	900 00	
Todd, A A	do	Dunster	12	"	80	960 00	
Sayer, J	do	Edgewood	12	"	75	900 00	
Fryer, I W	do	Eholt	4	"	75	300 00	
Milne, F R	do	"	8	"	75	600 00	
McPhail, A A	do	Elk Bridge	12	"	80	960 00	
Martin, V	do	Elk Prairie	4	"	80	320 00	
Willoughby, M E	do	"	2	"	80	160 00	
Clyde, V J	do	"	3	"	80	240 00	
Noble, M C	do	Empire Valley	4	"	85	340 00	
Ashmore, M	do	"	4	" 11 d.	85	371 15	
Hanna, M V	do	Endako	4	"	80	320 00	
Warner, P E	do	"	5	"	80	400 00	
Bowie, M M	do	"	3	"	80	240 00	
Donovan, M	do	Engen	4	"	75	300 00	
Irwin, J	do	Erie	12	"	75	900 00	
Wheeler, A L	do	Embree Bay	2	"	65	130 00	
Ferguson, H A	do	Fairview	4	"	75	300 00	
Archibald, L M	do	"	8	"	75	600 00	
Hope, J G	do	Falkland	12	"	75	900 00	
Freeman, E R	do	Fauquier	12	"	75	900 00	
Corson, E G	do	Ferguson	12	"	78	936 00	
Wilkinson, H R	do	Fife	12	"	75	900 00	
Struthers, R	do	Fire Valley	4	"	75	300 00	
Timaeus, M	do	"	8	"	75	600 00	
Newberry, R	do	Fish Lake	9	"	70	630 00	
Chute, N V	do	"	3	"	70	210 00	
Clotworthy, A J	do	Flagstone	1	" 21 d.	83	139 20	
Bond, I B	do	"	7	" 10 d.	83	607 80	
Harris, O M	do	"	3	"	83	249 00	
Ross, J S	do	Fort Fraser	12	"	100	1,200 00	
Bell, W	do	Fort George	12	"	125	1,500 00	
Wade, M	do	" 2nd Division	12	"	100	1,200 00	
Stewart, D H	do	" South	4	"	125	500 00	
Smith, E M	do	" "	8	"	125	1,000 00	
Buchanan, A	do	Foster's Bar	4	"	75	300 00	
Whitworth, A M	do	"	5	"	75	375 00	
Windwick, A D	do	"	10	days	75	24 20	
McIntosh, B	do	Galena	4	months	85	340 00	
Hyham, M B	do	Galena Bay	12	"	75	900 00	
Hicks, F W	do	Galiano	12	"	65	780 00	
Hands, J G	do	" North	3	"	60	180 00	
Waugh, M S	do	" "	8	"	60	480 00	
Codd, S	do	Galloway	12	"	75	900 00	
Clower, G B	do	Gambier Island	9	"	65	585 00	
Mercer, M W	do	Ganges	4	"	60	240 00	
McRae, G C	do	"	7	" 29 d.	60	476 10	
Macpherson, E H	do	Gerrard	4	"	75	300 00	
Vars, M G	do	"	7	"	75	525 00	
Sangster, G K	do	Gillis Bay	4	"	73	292 00	
O'Callaghan, N	do	"	5	"	73	365 00	
Eckardt, H	do	"	2	" 22 d.	73	197 80	
Stuart, E M	do	Gilpin	12	"	73	876 00	
Greenwood, M	do	Glade	8	"	85	680 00	
Agar, G	do	Glencoe	8	"	90	720 00	
Thompson, B G	do	Glenrosa	9	"	65	585 00	
Hay, M V	do	"	2	" 26 d.	65	184 50	
Fotheringham, J L	do	Granby Bay	4	"	95	380 00	
Haslett, K F	do	" 2nd Division	3	" 21 d.	80	296 00	
		Carried forward					976,391 51

TO WHOM PAID.		FOR WHAT SERVICE.				$ cts.	$ cts.
		Brought forward				.....	976,391 51
		VIII.—EDUCATION.—*Continued.*					
		Vote No. 93.—Salaries of Teachers in Assisted Schools.—Continued					
Haslett, K F	Teacher,	Granby Bay Mine	1	month @	$95	95 00	
Procter, E	do	Granite Bay	4	months	70	280 00	
Reed, J C	do	"	8	"	70	560 00	
MacKay, M H	do	Half Moon Bay	9	"	60	540 00	
Mansfield, E M	do	Hall's Landing	4	"	75	300 00	
Cowherd, I M	do	"	8	"	75	600 00	
Frederickson, C J	do	Hardy Island	4	"	60	240 00	
Smith, R E	do	"	5	"	60	300 00	
Wheeler, L M	do	"	3	"	60	180 00	
Jones, W R	do	Harpers Camp	12	"	98	1,176 00	
O'Brien, J E	do	Harrogate	4	"	70	280 00	
Townsend, C E	do	"	8	"	70	560 00	
Clyde, V J	do	Harrop	4	"	75	300 00	
McGregor, N J	do	"	8	"	75	600 00	
de Macedo, A	do	Hat Creek	4	"	75	300 00	
Cairnes, J A	do	"	5	"	75	375 00	
Beane, A	do	"	3	"	75	225 00	
Bradshaw, H A	do	Haysport	8	"	75	600 00	
Fuller, J R	do	Hazelton	4	"	105	420 00	
Wentzel, M B	do	"	8	"	105	840 00	
McMartin, T A	do	" New	12	"	100	1,200 00	
Austin, E R	do	Heffley Creek	12	"	75	900 00	
Shaw, R M	do	Heffley Lake	12	"	75	900 00	
Walker, K E	do	Heriot Bay	9	"	75	675 00	
Haslam, M	do	"	3	"	75	225 00	
Scarlett, G M	do	Heydon Bay	4	" 25 d.	65	314 15	
Likeman, J	do	Highland	12	"	65	780 00	
Robertson, M M	do	Hilborn	8	"	85	680 00	
Binney, K	do	Hilltop	12	"	75	900 00	
McLean, J O	do	Hilton	4	"	68	272 00	
Jones, N M	do	"	8	"	68	544 00	
Baker, M A	do	Hope Station	9	"	65	585 00	
Clegg, R B	do	"	3	"	65	195 00	
Skelding, C H	do	Hornby Island	4	"	65	260 00	
Little, H E	do	"	8	"	65	520 00	
Barker, J	do	Horse Creek	4	"	85	340 00	
Skelding, C	do	"	7	" 30 d.	85	677 25	
Eckardt, H A	do	Hosmer	4	"	85	340 00	
Null, G	do	"	5	"	85	425 00	
Duncan, G E	do	"	1	" 25 d.	85	160 90	
Glass, T A	do	"	30	days	85	82 25	
McKay, E	do	Houston	7	months	75	525 00	
Muir, J N	do	"	1	"	75	75 00	
Arland, E	do	Hupel	4	"	60	240 00	
Hoy, M W	do	"	5	"	60	300 00	
Lawrence, K	do	"	2	" 10 d.	60	139 35	
Mitchell, L L	do	Hurlingham	4	"	75	300 00	
Douglass, K B	do	"	26	days	75	65 00	
Mude, E	do	"	2	months 22 d.	75	203 20	
Willoughby, M E	do	"	3	"	75	225 00	
Cartwright, M L	do	Huscroft	4	"	80	320 00	
Palmer, J	do	"	8	"	80	640 00	
Ferguson, E M	do	Ingram Mountain	4	"	75	300 00	
MacKinnon, A D	do	Invermere	12	"	85	1,020 00	
Anderson, D J	do	Inverness	12	"	85	1,020 00	
Hailey, T S	do	Ioco	4	"	60	240 00	
Kneeshaw, M E	do	"	8	"	60	480 00	
Cooke, A W	do	Isabella Point	12	"	68	816 00	
Archibald, L M	do	James Island	4	"	60	240 00	
Scott, A G	do	"	8	"	60	480 00	
Pollock, R T	do	Jordan River	3	"	65	195 00	
McCannell, M	do	"	8	"	65	520 00	
Craig, G B	do	Kaleden	7	" 11 d.	75	551 65	
Johnston, A S	do	Kalwa	12	"	75	900 00	
Asher, J A	do	Kedleston	12	"	68	816 00	
Green, E M	do	Keefers	9	"	65	585 00	
Steer, O C	do	"	3	"	65	195 00	
McCallum, J M	do	Kelowna, East	9	"	70	630 00	
Thompson, B G	do	"	2	" 30 d.	70	207 75	
Wood, I V	do	Keremeos, South	9	"	70	630 00	
Nesbitt, D	do	"	3	"	70	210 00	
Hamar, M	do	Kettle River, North	4	"	75	300 00	
Campbell, J M	do	" "	8	"	75	600 00	
Harrigan, M J	do	Kettle Valley	9	"	75	675 00	
Tourigny, P A	do	"	3	"	75	225 00	
Moore, F W	do	Kildonan	9	"	70	630 00	
Johnston, J C	do	"	2	"	70	140 00	
Briand, A	do	"	27	days	70	60 95	
Murray, C P	do	Killarney	4	months	75	300 00	
		Carried forward				.....	976,391 51

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	976,391 51
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 93.—Salaries of Teachers in Assisted Schools.—Continued.		
Mitchell, L L	Teacher, Kilkarney ... 8 months @ $75	600 00	
Kennedy, J	do Kimberley ... 4 " 78	312 00	
Slater, J C	do " ... 5 " 78	390 00	
Harris, H	do " ... 3 " 78	234 00	
Spencer, T	do Kingcome Inlet ... 4 " 70	280 00	
Barkley, C	do Kingsgate ... 9 " 75	675 00	
Dailey, H S	do " ... 3 " 75	225 00	
Fleming, E McL	do Kitimat ... 8 " 80	640 00	
Chute, N V	do Knutsford ... 4 " 65	260 00	
Dandy, M H	do " ... 8 " 65	520 00	
Fineland, M H	do Koch Siding ... 4 " 68	272 00	
Allen, A M	do " ... 8 " 68	544 00	
Le Tontunier, F	do Kundis ... 12 " 80	960 00	
Stevenson, E L	do Lac du Bois ... 8 " 70	560 00	
Trainor, F A	do Lac la Hache ... 4 " 80	320 00	
Simpson, G W	do " ... 8 " 80	640 00	
Sterling, E M	do Lake Buntzen ... 12 " 65	780 00	
Hunter, R B	do Lasqueti Island ... 4 " 70	280 00	
Teetzel, E W	do " ... 8 " 70	560 00	
McMullan, J	do Little Fort ... 12 " 80	960 00	
Gilpin, E M	do Loco ... 12 " 75	900 00	
Wood, G B	do Lucerne ... 11 " 75	825 00	
Butters, K E	do Mabel Lake ... 4 " 68	272 00	
Magowen, D	do " ... 8 " 68	544 00	
MacCoughie, T C	do Malcolm Island ... 12 " 100	1,200 00	
Bradshaw, M	do " 2nd Division ... 12 " 75	900 00	
Matheson, W H	do Mapes ... 12 " 95	1,140 00	
Whittaker, E J	do Marshall ... 12 " 70	840 00	
Grubb, R N	do Masset ... 3 " 90	270 00	
MacKenzie, I S	do Meadowbrook ... 4 " 70	280 00	
Creedon, E	do " ... 1 " 70	70 00	
Newman, B L	do " ... 6 " 5 d. 70	431 65	
Hookings, C E	do Meadow Spur ... 9 " 75	675 00	
Bool, A	do " ... 3 " 75	225 00	
Baker, J J	do Meadow Valley ... 6 " 20 d. 60	400 00	
Agar, G	do Meldrum Creek ... 4 " 85	340 00	
Sullivan, M F	do " ... 8 " 85	680 00	
Stone, S L	do Metlakatla ... 12 " 90	1,080 00	
Campbell, B M E	do Mill Brook Cove ... 6 " 26 d. 65	446 35	
Bodley, O J	do Mill Creek ... 9 " 60	540 00	
Nicholles, C I	do " ... 3 " 60	180 00	
Warne, F	do Mirror Lake ... 4 " 75	300 00	
Hanna, E J	do " ... 3 " 20 d. 75	275 00	
O'Bannon, E	do Moberly ... 12 " 80	960 00	
Turner, C	do Model Farms ... 4 " 75	300 00	
May, C R	do " ... 4 " 20 d. 75	348 40	
Willoughby, M E	do Morrissey ... 4 " 70	280 00	
Allen, G C	do " ... 1 " 1 d. 70	72 35	
Lotito, K R	do " ... 2 " 25 d. 70	198 35	
Cooper, R F	do " Mines ... 12 " 70	840 00	
King, E H	do Mount Ingersoll ... 4 " 75	300 00	
Morrison, M T	do " ... 8 " 75	600 00	
Paul, H	do Moyase ... 4 " 65	260 00	
Brown, H A	do " ... 8 " 65	520 00	
Snider, M O	do Moyie ... 4 " 75	300 00	
Lewis, M L	do " ... 8 " 75	600 00	
Cartwright, G C	do " 2nd Division ... 4 " 60	240 00	
Baker, K L	do " " ... 8 " 60	480 00	
Hall, U F	do Macalister ... 4 " 85	340 00	
Hutchison, B	do " ... 8 " 85	680 00	
McNeill, C W	do McBride ... 9 " 100	900 00	
Brannick, J C	do " ... 3 " 100	300 00	
Davies, T L	do McGuire ... 12 " 75	900 00	
Balkwill, A B	do MacKenzie ... 12 " 80	960 00	
Smith, B	do Nechako ... 5 " 28 d. 75	442 75	
Bice, E L	do Needles ... 12 " 75	900 00	
Bunt, R L	do Newlands ... 4 " 75	300 00	
Scutt, J A	do Nickel Plate Mine ... 4 " 70	280 00	
Dill, N L	do " ... 8 " 70	560 00	
Christensen, C B	do Nimpkish ... 12 " 70	840 00	
McCorkell, M G	do Nine-mile Creek ... 4 " 60	240 00	
Wright, J M	do " ... 4 " 29 d. 60	296 15	
Hamill, F E	do " ... 2 " 3 d. 60	125 85	
Griffiths, A	do Ocean Falls ... 8 " 80	640 00	
Brett, N J	do Okanagan Centre ... 4 " 68	272 00	
Faircloth, L	do " ... 8 " 68	544 00	
Armstrong, M	do Okeover Arm ... 4 " 60	240 00	
Williams, M E J	do " ... 8 " 60	480 00	
Love, K E	do Olalla ... 12 " 77	924 00	
	Carried forward	.....	976,391 51

TO WHOM PAID.	FOR WHAT SERVICE.				$ cts.	$ cts.
	Brought forward					976,391 51
	VIII.—EDUCATION.—*Continued.*					
	Vote No. 93.—Salaries of Teachers in Assisted Schools.—Continued					
Foley, W L	Teacher,	Olsen Lake	4	months @ $65	260 00	
Gay, V D	do	"	7	" 30 d. 65	517 90	
Hinton, F A	do	Ootsa Lake	4	" 75	300 00	
Lowther, M L	do	"	6	" 16 d. 75	490 00	
Hands, J G	do	Osland	3	" 6 d. 75	240 00	
Macdonald, A M	do	"	2	" 23 d. 75	205 65	
Griffiths, A	do	Pachelqua	4	" 75	300 00	
Bradshaw, M V	do	"	5	" 75	375 00	
Stephen, J	do	"	2	" 75	150 00	
Wheeler, L	do	Pacific	4	" 11 d. 75	327 50	
Wade, E	do	Parks Siding	4	" 65	260 00	
Ivens, R E	do	"	5	" 65	325 00	
Smiley, D C	do	"	2	" 30 d. 65	192 90	
Ede, K E	do	Parson	5	" 70	350 00	
Sparling, E R	do	"	3	" 70	210 00	
Smith, R R	do	Pavilion	4	" 75	300 00	
Varcoe, E I	do	"	5	" 75	375 00	
Simpson, M	do	"	3	" 75	225 00	
Lanoville, C	do	Pemberton Meadows	4	" 60	240 00	
Mellish, M	do	"	8	" 60	480 00	
Harris, H	do	Pemberton Range	9	" 65	585 00	
Slater, J C	do	"	2	" 26 d. 65	184 50	
Gordon, R	do	Pender Harbour	9	" 60	540 00	
Mack, M A	do	"	3	" 60	180 00	
Vance, A C	do	Perry Siding	12	" 75	900 00	
Charnley, A	do	Pinantan	6	" 20 d. 70	466 65	
Leys, C	do	Porcher Island	12	" 85	1,020 00	
Tingley, A L	do	Port Clements	12	" 85	1,020 00	
Cunningham, P K	do	Port Hardy	12	" 80	960 00	
Sweetland, R	do	Port Renfrew	2	" 27 d. 65	186 60	
Durick, D E	do	Port Washington	9	" 60	540 00	
Mason, S T	do	"	3	" 60	180 00	
Kerr, M F	do	Princeton, East	4	" 75	300 00	
Beattie, M R	do	"	3	" 75	225 00	
Fairman, W	do	Pouce Coupe	12	" 100	1,200 00	
Cameron, W A	do	" North	4	" 100	400 00	
Braden, C E	do	" "	5	" 27 d. 100	587 10	
Keith, N O	do	Quatsino	12	" 80	960 00	
Lauder, E M	do	Queen Charlotte	8	" 90	720 00	
Botting, L J	do	Ray Lake	4	" 60	240 00	
Tully, N J	do	"	5	" 60	300 00	
Williams, S	do	"	2	" 10 d. 60	139 35	
Steeves, G E	do	Refuge Cove	4	" 60	240 00	
Schwesinger, G C	do	"	3	" 60	180 00	
Macgowen, D	do	Reiswig	4	" 65	260 00	
Simpson, E C	do	"	8	" 65	520 00	
Williams, J	do	Renata	12	" 75	900 00	
Evans, G S J	do	Retreat Cove	9	" 60	540 00	
Livingstone, E	do	"	1	" 17 d. 60	96 40	
Williams, J E	do	Richland	12	" 65	780 00	
Norris, M J	do	Riondel	12	" 70	840 00	
Orange, E G	do	Roberts Creek	12	" 75	900 00	
Harold, H C	do	Robins Range	8	" 60	480 00	
Hall, A V	do	Rock Bay	4	" 70	280 00	
Knight, E M	do	"	8	" 70	560 00	
O'Connell, D P	do	Rock Creek	12	" 75	900 00	
McKay, S E	do	Roe Lake	4	" 75	300 00	
Champion, E M	do	"	8	" 75	600 00	
Chandlemere, N H	do	Rogers Pass	4	" 75	300 00	
Paterson, E B	do	Roosville	12	" 80	960 00	
MacEwan, J	do	Roseberg	5	" 75	375 00	
McKeen, M H	do	"	2	" 30 d. 75	222 50	
Corbett, J M	do	Round Top	8	" 75	600 00	
Greenwood, G	do	Saint Elmo	12	" 65	780 00	
Olls, E	do	Salmon River	12	" 70	840 00	
Hayes, L	do	Salmon Valley	4	" 75	300 00	
McTavish, V I	do	"	6	" 26 d. 75	515 00	
Johnston, D	do	Sandspit	4	" 90	360 00	
Henderson, M B	do	"	8	" 90	720 00	
Ligertwood, A	do	Saskatoon Creek	12	" 100	1,200 00	
Stephen, F H S	do	Savary Island	12	" 60	720 00	
Merilees, J L	do	Sayward	4	" 80	320 00	
Johnson, M G	do	"	8	" 80	640 00	
Gowanlock, E J	do	Sea Otter Cove	4	" 75	300 00	
Gemmell, M	do	Sechelt	4	" 65	260 00	
Percival, E M	do	"	5	" 65	325 00	
Tidey, G A	do	"	3	" 65	195 00	
Fournier, J R	do	Seton Lake Creek	4	" 73	292 00	
Street, E S	do	"	8	" 73	584 00	
	Carried forward					976,391 51

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	976,391 51
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 93.—Salaries of Teachers in Assisted Schools.—Continued.		
Bent, R E	Teacher, Seymour Arm, 9 months @ $ 75	675 00	
Lister, C G	do " 3 " 75	225 00	
McHeffey, J	do Shaw Cove 5 " 65	325 00	
Muir, J N	do " 1 " 65	65 00	
Keen, G	do " 1 " 10 d. 65	88 20	
Burnes, I M	do Shirley 6 " 65	390 00	
Donaldson, M E	do Shoreacres 4 " 75	300 00	
MacDonald, R M	do " 8 " 75	600 00	
Fuhr, A M	do Shuswap Falls 12 " 65	780 00	
Noakes, F B	do Shuswap North 4 " 68	272 00	
Vickers, L E	do " " 5 " 68	340 00	
Cook, E C	do " " 3 " 68	204 00	
Douglass, K H	do Shutty Bench 4 " 70	280 00	
Tapanila, O N	do " 8 " 70	560 00	
Procunier, V E I	do Sicamous 12 " 70	840 00	
Ivens, L E	do Silver Creek 4 " 70	280 00	
Monteith, B L	do " 6 " 70	420 00	
Sewell, E	do Similkameen 12 " 80	960 00	
Yolland, N M C	do Sinclair 4 " 75	300 00	
Richards, J M	do " 8 " 75	600 00	
Barker, L F	do Sirdar 12 " 80	960 00	
Aird, O M	do Sisters Creek 6 " 10 d. 85	538 35	
Anderson, R A	do Skidegate 7 " 5 d. 85	609 15	
McDougall, D	do Skookumchuck 3 " 65	195 00	
Barwise, E	do Smithers 9 " 100	900 00	
Middleton, E E	do " 3 " 100	300 00	
Wood, C B	do Soda Creek 12 " 95	1,140 00	
Vanetta, A E	do Soisqua 4 " 70	280 00	
Aubrey, C M	do " 8 " 70	560 00	
Hammill, H G	do Sooke Harbour 6 " 13 d. 55	353 85	
Tanner, E W	do Sorrento 4 " 73	292 00	
Johnson, M S	do " 8 " 73	584 00	
Nesbitt, F M	do Squam Bay 8 " 70	560 00	
Fletcher, B	do Squamish, Lower 4 " 80	320 00	
Maclennan, I M	do " " 2nd Division 4 " 60	240 00	
Stern, F	do Squirrel Cove 2 " 30 d. 65	192 95	
Brockman, A	do Standard Mine 12 " 70	840 00	
Morrow, M K	do Stellaco 12 " 80	960 00	
Davidson, D	do Stewart 12 " 110	1,320 00	
Williams, S	do Strandby 4 " 85	340 00	
Rumbely, M C	do Sullivan Valley 4 " 73	292 00	
Winterbottom, H L	do " 8 " 73	584 00	
Wilcox, M R	do Sunnybrae 9 " 65	585 00	
McKenna, R	do " 2 " 21 d. 65	174 05	
Montgomery, G R	do Sunnyside 4 " 65	260 00	
Hutchison, E H	do " 5 " 65	325 00	
Orser, P M	do Swift Creek 10 " 23 d. 65	698 25	
Cuttle, H M	do Syringa Creek 4 " 75	300 00	
Hunter, G A	do " 8 " 75	600 00	
Jacques, T H	do Taft 4 " 70	280 00	
Lawrence, F E	do " 8 " 70	560 00	
Sterling, E M	do Tappen Valley 9 " 65	585 00	
Preston, M	do " 2 " 17 d. 65	165 65	
Pake, W T	do Telegraph Creek 4 " 105	420 00	
Fournier, J R	do " 8 " 105	840 00	
McKay, E	do Telkwa 4 " 75	300 00	
Pope, D	do " 8 " 75	600 00	
Anderson, M A	do Three Forks 4 " 75	300 00	
Dainard, W	do " 8 " 75	600 00	
Houston, S E	do Three Valley 4 " 75	300 00	
Jacques, T H	do " 8 " 75	600 00	
Robertson, R C	do Thrums 4 " 85	340 00	
Mansfield, M	do " 8 " 85	680 00	
Macphail, A	do Thurlow 4 " 75	300 00	
Breci, E B	do " 8 " 75	600 00	
Cary, E R	do Tranquille 4 " 70	280 00	
Hamill, F E	do " 5 " 70	350 00	
Terhune, L M	do " 2 " 16 d. 70	176 15	
Arnold, E M	do Trapp Lake 4 " 65	260 00	
Curtis, M L	do " 8 " 65	520 00	
Harris, J W	do Trout Creek, Upper 12 " 65	780 00	
Vars, M G	do Trout Lake 4 " 80	320 00	
Macpherson, E H	do " 8 " 80	640 00	
Stuart, J	do Tulameen 7 " 78	546 00	
Marquart, W M	do " 3 " 78	234 00	
Few, B	do Turtle Valley 4 " 70	280 00	
Dobson, B M	do " 8 " 70	560 00	
Lyche, A G	do Uchuelet 12 " 78	936 00	
Darling, J G	do " Arm 9 " 75	675 00	
	Carried forward	.....	976,391 51

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	976,391 51
	VIII.—EDUCATION.—*Continued.*		
	Vote No. 93.—Salaries of Teachers in Assisted Schools.—Concluded.		
Eckardt, E	Teacher, Ucluelet Arm ... 2 months @ $ 75	150 00	
Nowlan, L M	do " East ... 12 " 75	900 00	
Jones, E V M	do Valdes Island ... 4 " 75	300 00	
Spencer, T	do " ... 8 " 75	600 00	
McCallum, M	do Vanderhoof ... 12 " 80	960 00	
Carolan, H	do Vargas Island ... 8 " 70	560 00	
James, A	do Voigt Camp ... 4 " 70	280 00	
Clotworthy, A J	do " ... 1 " 70	70 00	
Towell, A S	do Walhachin ... 12 " 65	780 00	
Carson, G M	do Wanklyn ... 1 " 27 d. 70	137 45	
Murray, E A	do Wapta ... 4 " 85	340 00	
Hall, F E	do " ... 8 " 85	680 00	
Wilson, E M	do Wasa ... 4 " 85	340 00	
Turnbull, M	do " ... 8 " 85	680 00	
Noakes, F B	do Watmore ... 8 " 68	544 00	
Evans, F R	do West View ... 7 " 60	420 00	
Richards, E C	do Whaletown ... 4 " 75	300 00	
Frederickson, C J	do " ... 8 " 75	600 00	
Sutherland, J	do Whatshan ... 12 " 100	1,200 00	
Gibson, A W	do Wheeler Mountain ... 8 " 24 d. 65	570 30	
Brett, E V	do White Lake ... 2 " 9 d. 60	137 40	
Davidson, G R	do Williams Lake ... 4 " 95	380 00	
Weetman, H J	do " ... 8 " 95	760 00	
Murphy, E R	do " Siding ... 4 " 75	300 00	
Oates, L E	do " " ... 8 " 75	600 00	
O'Neill, W W C	do Willow River ... 12 " 80	960 00	
Paterson, H	do Wilmer ... 12 " 85	1,020 00	
MacKenzie, A B	do Windermere ... 12 " 85	1,020 00	
McVicar, F G	do Winlaw ... 12 " 75	900 00	
McKenzie, M	do Woden River ... 4 " 80	320 00	
Whelan, S R	do " ... 1 " 17 d. 80	125 35	
Mallory, E M	do " ... 26 days 80	67 60	
Pollock, R T	do " ... 5 months 8 d. 80	420 65	
Bourdman, A E	do Wolfson Bay ... 1 " 80	80 00	
Rowan, J S	do " ... 10 " 7 d. 80	818 05	
Miller, E J	do Woodville Road ... 3 " 65	195 00	
Duncan, G E	do Wynndel ... 4 " 80	320 00	
Johnson, R	do " ... 5 " 80	400 00	
Ashton, J J	do " ... 3 " 80	240 00	
Whitebread, P G	do Yale ... 4 " 70	280 00	
McNeill, H	do " ... 8 " 70	560 00	
Newman, O E	do Aspen Grove, Salary for January and February not included in 1915/16 ... 2 months @ $ 75	150 00	
			278,419 00
	Vote No. 94—Salaries of Teachers of Schools in Esquimalt and Nanaimo Railway Belt.		
Hayes, W P	Teacher, Bamberton ... 4 months @ $ 60	240 00	
Mebins, J	do Beaver Creek ... 4 " 70	280 00	
Lyness, M I	do " ... 8 " 70	560 00	
Fleet, I M	do Bench ... 12 " 75	900 00	
Opie, A M	do Bowser ... 12 " 60	720 00	
Donnan, W	do Brechin ... 4 " 100	400 00	
Murray, P	do " ... 8 " 100	800 00	
Sutherland, M P	do " 2nd Division ... 4 " 80	320 00	
Freeman, C V	do " " ... 8 " 80	640 00	
Cook, F L	do " 3rd Division ... 12 " 70	840 00	
Simpson, A	do Cedar, East ... 4 " 70	280 00	
McKenzie, V C	do " " ... 8 " 70	560 00	
Tupper, J F	do " North ... 4 " 80	320 00	
Smith, A	do " " ... 8 " 80	640 00	
Cripps, C	do " " 2nd Division ... 4 " 65	260 00	
Mercer, W M	do " " " ... 8 " 65	520 00	
Stewart, H	do " South ... 4 " 78	312 00	
Parrott, A A	do " " ... 8 " 78	624 00	
Barron, T J	do Chase River ... 4 " 90	360 00	
Snider, E E	do " ... 6 " 90	540 00	
Maclean, G C	do " ... 2 " 90	180 00	
Maclean, G C	do " 2nd Division ... 10 " 75	750 00	
Harvie, J A	do " " ... 2 " 75	150 00	
Mason, S T	do Cherry Creek Valley ... 4 " 65	260 00	
Reid, M E J	do " ... 8 " 65	520 00	
Herd, A B G	do Cobble Hill ... 9 " 65	585 00	
Stubbs, G W	do " ... 3 " 65	195 00	
Beattie, H E	do Comox ... 4 " 80	320 00	
Cass, E A	do " ... 8 " 80	640 00	
Wilson, E E	do " 2nd Division ... 6 " 22 d. 65	436 15	
Maclennan, I M	do " " ... 2 " 9 d. 65	148 85	
Cruden, E	do " " ... 3 " 65	195 00	
	Carried forward	.....	1254810 51

TO WHOM PAID.	FOR WHAT SERVICE.				$ cts.	$ cts.
	Brought forward					1254810 51
	VIII.—EDUCATION.—*Continued.*					
	Vote No. 94.—Salaries of Teachers of Schools in Esquimalt and Nanaimo Railway Belt.—Continued.					
Bowyer, G	Teacher,	Cowichan	12	months @ $ 80	960 00	
Bruce, E M	do	" 2nd Division	12	" 65	780 00	
Herd, J	do	Cowichan Lake	4	" 65	260 00	
Wille, E A	do	"	5	" 65	325 00	
McIntyre, J J	do	"	3	" 65	195 00	
Rogers, E K	do	Departure Bay	12	" 75	900 00	
Williams, M A	do	Diamond Crossing	12	" 80	960 00	
Bickle, R E L	do	" 2nd Division	12	" 65	780 00	
Green, N	do	Errington	4	" 60	240 00	
Coombs, E	do	"	8	" 60	480 00	
Mazzoline, C	do	Extension	12	" 95	1,140 00	
Wilkinson, P T	do	" 2nd Division	6	" 11 d. 75	476 55	
Stewart, Mary	do	" "	2	" 19 d. 75	196 00	
Stewart, M M	do	" "	3	" 75	225 00	
England, V	do	" 3rd Division	4	" 65	260 00	
Stewart, Mary	do	" "	2	" 11 d. 65	153 05	
Stewart, M M	do	" "	2	" 20 d. 65	171 95	
McKinnell, E B	do	" "	3	" 65	195 00	
Gray, M H	do	Fanny Bay	12	" 70	840 00	
MacDonald, S B	do	French Creek	4	" 73	292 00	
Trainor, F A	do	"	8	" 73	584 00	
Griffiths, M W	do	Gill	4	" 78	312 00	
Smith, M	do	"	8	" 78	624 00	
James, B	do	Glenora	4	" 70	280 00	
Rolfe, L M	do	"	8	" 70	560 00	
Sivertz, C	do	Grantham	4	" 70	280 00	
Williamson, D K	do	"	8	" 70	560 00	
Bryant, T	do	Harewood	4	" 100	400 00	
Brown, C G	do	"	8	" 100	800 00	
Price, J H	do	" 2nd Division	4	" 90	360 00	
Hughes, J W	do	" "	5	" 90	450 00	
Johnson, R	do	" "	3	" 90	270 00	
Devlin, R	do	" 3rd Division	12	" 80	960 00	
Booyer, G M	do	" 4th Division	4	" 70	280 00	
Stephens, M E	do	" "	8	" 70	560 00	
Stephens, M E	do	" 5th Division	4	" 65	260 00	
Green, N	do	" "	8	" 65	520 00	
Cunningham, N T	do	" 6th Division	4	" 65	260 00	
Cavalsky, E J	do	" "	8	" 65	520 00	
Cunningham, E A	do	" 7th Division	12	" 65	780 00	
Hodgson, E	do	" 8th Division	12	" 65	780 00	
Horbury, M	do	Headquarters	12	" 65	780 00	
Sullivan, K	do	Hillier	4	" 65	260 00	
Fitzgerald, A	do	"	8	" 65	520 00	
Macdonald, M F	do	Koksilah	12	" 70	840 00	
Ward, C E	do	Lazo	9	" 75	675 00	
Smith, E T	do	"	3	" 75	225 00	
Bell, R K	do	Malahat	11	" 75	825 00	
Brown, M E	do	"	1	" 75	75 00	
Corkum, C H	do	Minto	4	" 85	340 00	
MacKenzie, R W	do	"	5	" 85	425 00	
Moore, F W	do	"	3	" 85	255 00	
Halliday, J	do	" 2nd Division	4	" 70	280 00	
Reese, A L	do	" "	8	" 70	560 00	
Kenyon, F E	do	Montrose	4	" 68	272 00	
Hardy, M E	do	"	8	" 68	544 00	
Freeman, C V	do	Mountain	4	" 75	300 00	
Kenyon, F E	do	"	8	" 75	600 00	
Stewart, M	do	Nanaimo Bay	4	" 90	360 00	
Wardill, O	do	"	8	" 90	720 00	
Brown, L H	do	" 2nd Division	4	" 75	300 00	
Sampson, T	do	" "	8	" 75	600 00	
Rath, M C	do	Nanoose Bay	12	" 68	816 00	
Wright, C	do	Nob Hill	12	" 70	840 00	
Fox, W S	do	Northfield	12	" 85	1,020 00	
Kenyon, A	do	" 2nd Division	12	" 70	840 00	
Milligan, R	do	No. 7 Mine	9	" 85	765 00	
Fitzgerald, C	do	"	2	" 85	170 00	
Macpherson, S A	do	" 2nd Division	2	" 4 d. 70	149 35	
Harrison, H	do	" "	9	" 26 d. 70	690 65	
Coburn, D P	do	Oyster	4	" 73	292 00	
Keeping, F E	do	"	8	" 73	584 00	
Tranfield, B M	do	" North	7	" 80	560 00	
Blake, H J	do	"	5	" 80	400 00	
Hume, A S	do	Parksville	4	" 70	280 00	
Burrell, D G	do	"	8	" 70	560 00	
May, C R	do	Qualicum Beach	4	" 80	320 00	
Fraser, M A	do	"	8	" 80	640 00	
Fraser, M A	do	" 2nd Division	4	" 60	240 00	
	Carried forward					1254810 51

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	1254810 51
	VIII.—EDUCATION.—*Concluded.*		
	***Vote No. 94.—Salaries of Teachers of Schools in Esquimalt and Nanaimo Railway Belt.*—Concluded.**		
Dougan, F M	Teacher, Qualicum Beach, 2nd Division ... 8 months @ $ 60	480 00	
Tarbuck, E	do " Little ... 9 " 70	630 00	
MacKenzie, J J	do " " ... 3 " 70	210 00	
Watts, M S	do Royston ... 12 " 65	780 00	
Bossi, O L	do Sahtlam ... 12 " 65	780 00	
Robertson, M A	do Sandwick ... 9 " 80	720 00	
Downey, R C	do " ... 3 " 80	240 00	
King, J	do Shawnigan ... 12 " 75	900 00	
Andrews, G L	do Union Bay ... 9 " 88	792 00	
Milligan, R	do " ... 2 " 28 d. 88	255 50	
Smith, M M	do " 2nd Division ... 4 " 68	272 00	
Russell, E C	do " " ... 8 " 68	544 00	
Glenn, M	do Waterloo ... 12 " 60	720 00	
Loudon, J H	do Wellington ... 12 " 88	1,056 00	
Peterson, C R	do " 2nd Division ... 12 " 65	780 00	
Harries, S O	do " South ... 12 " 100	1,200 00	
Burbridge, C E	do " " 2nd Division ... 4 " 90	360 00	
de Macedo, W	do " " " ... 8 " 90	720 00	
Down, F T	do " " 3rd Division ... 12 " 80	960 00	
Waugh, A	do " " 4th Division ... 12 " 70	840 00	
			66,888 05
	Vote No. 95.—Grant to Libraries.		
Albert Head School Dist	Grant to Library	20 60	
Chilliwack "	do	11 25	
Mara "	do	8 75	
Merritt "	do	21 45	
Nelson "	do	50 00	
N Vancouver "	do	10 00	
Penticton "	do	37 50	
Port Moody "	do	49 79	
West Arrow Park "	do	12 05	
			221 39
	Vote No. 96.—Conveying Children to Central School.		
Municpty of Richmond	Conveying children to central school	650 00	
do Summerland	do "	934 55	
			1,584 55
	Vote No. 97.—Manual-training Equipment.		
Municpty of Chilliwack	Proportional Grant for manual-training equipment	787 79	
do Maple Ridge	do " "	345 65	
do Point Grey	do " "	2,948 57	
Sch'l Trustees, Penticton	do " "	425 96	
School Trustees, Vernon	do " "	466 75	
			4,974 72
	Vote No. 98.—Contingencies.		
Trus Atlin School Dist	Wood, water, janitor services, etc	59 50	
Bidding, G	Janitor and scavenging, Atlin	14 00	
Billings, H M	Rent of school, Salmo	45 00	
Braden, C E	Allowance towards travelling expenses, Golden to North Pouce Coupe	75 00	
Can Pacific Railway Co	Freight, $1.22; telegrams, $182.02	183 24	
Dominion Express Co	Expressage	5 70	
Dom Govt Telegraphs	Telegrams	26 63	
Egger, P	Rent of school, Extension ... 7 months @ $10	70 00	
Trus Ft George Schl Dist	Janitor, scavenging, sundries	748 90	
G N W Telegraph Co	Telegrams	31 79	
Harvey & Blackburn	Rent of school, Sidney ... 12 months @ $10	120 00	
Trus Lower Squamish School District	Janitor and incidental expenses	146 10	
Trus Morrissey Mines School District	Stationery, etc	5 45	
McGladrey Bros	Cartage	1 00	
McLean, K	Rent of school, Extension ... 7 months @ $10	70 00	
Municpty of N Cowichan	Rent of Maple Bay School ... 9 " 5	45 00	
Trus Princeton Sch'l Dist	Rent of school, Princeton, 8 months @ $12.50; East Princeton, 7 " 12.50	187 50	
Reading Camp Ass'n	Grant on account of Instructors at Rogers Pass Tunnel, Bear Creek, and Construction Camps at Headquarters and Rock Bay	300 00	
Trus Salmo School Dist	Rent of building used as school ... 9 months @ $15	135 00	
do Silverton "	do school ... 12 " 12	144 00	
do S Ft George "	Janitor, scavenging, and incidentals	340 40	
Western Fuel Co	Rent of school, Brechin ... 12 months @ $15	180 00	
			2,934 21
			1331413 43

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	IX.—TRANSPORT.		
	Vote No. 99.—Charges on Remittances.		
Bank of B N A	Charges on remittances to and from various Agencies	151 03	
Bank of Montreal	do " "	17 05	
Can Bank of Commerce	do " "	297 11	
Imperial Bank of Canada	do " "	3 30	
Northern Crown Bank	do " "	12 83	
Royal Bank of Canada	do " "	79 72	
Union Bank of Canada	do " "	3 00	
Brindle, A St C	(Paid) Acting Mining Recorder, Trout Lake	1 90	
Campbell, F C	do Government Agent, New Westminster	6 75	
Fisher, E	do " Kamloops	2 15	
Gordon, C L	do Censor, Moving Pictures, Vancouver	1 05	
Gunther, E F	do Superintendent of Insurance, Victoria	45 83	
Hoskins, S H	do Government Agent, Hazelton	39 20	
Jarvis, S S	do Assessor and Collector, Nelson	3 60	
Lunn, E C	do Government Agent, Clinton	3 26	
Miller, M	do Registrar, Births, Deaths and Marriages, Victoria	76	
McGown, G C	do Inspector of Steam-boilers, New Westminster	60	
Parsons, T W S	do Chief Constable Fort St. John	5 32	
Somerville, T	do Police Constable. Lytton	85	
			675 31
	Vote No. 100.—Travelling Expenses of Officers on Duty, (not otherwise provided for).		
Armstrong, R	Travelling expenses, Insurance Department	381 75	
Baer, W W	do Secretary to Premier	3 00	
Baird, R	do Inspector of Municipalities	164 00	
Bath, F	do Steam-boiler Inspector	190 80	
Baxter, S	do "	402 55	
Bell, W W	do Assistant Public Works Engineer	914 20	
Bennett, A S	do Steam-boiler Inspector	292 45	
Biggam, F	do "	148 90	
Bowser, Hon W J	do Premier	1,436 05	
Bradley, W W	do Government Agent, Golden	46 35	
Brewster, Hon H C	do Premier	263 95	
Brown, J R	do Government Agent, Fairview	170 60	
Brindle, A C	do Acting Mining Recorder	31 95	
Bulman, J	do Government Agent, Wilmer (Sub)	65 65	
Campbell, F C	do " New Westminster	8 25	
Campbell, Hon L A	do Minister of Mines	717 00	
Cathcart, H	do Lands Department	17 15	
Clark, J	do Steam-boiler Inspector	649 45	
Conway, J	do Mining Recorder, Prince Rupert	53 35	
Cookson, C H	do Engineer in Charge of Designing	53 80	
Cullin, W H	do King's Printer	8 30	
Dawson, G H	do Surveyor-General	13 05	
Devlin, H	do Inspector of Mines	527 05	
Dewdney, W R	do Government Agent, Greenwood	20 45	
Dodd, L A	do Mining Recorder, Yale	39 45	
Douglas, H	do Assistant Inspector of Factories	679 55	
Downie, J	do Steam-boiler Inspector	15 20	
Duckitt, L	do "	815 05	
Dunlop, J	do Assessor and Mining Recorder, Lillooet	25 00	
Fisher, E	do Government Agent, Kamloops	7 65	
Fletcher, S A	do Travelling Auditor	1,286 00	
Foster, J R	do Examiner under "Moving Pictures Act"	30 95	
Fraser, J A	do Government Agent, Atlin	186 00	
Gamble, F C	do Chief Engineer of Railways	874 70	
Goepel, P A	do Steam-boiler Inspector	218 85	
Goepel, W J	do Deputy Minister of Finance	2 00	
Gordon, C L	do Censor of Moving Pictures	121 70	
Gordon, C R	do Inspector of Factories	841 05	
Gordon, R	do Government Agent, Revelstoke	12 70	
Graham, T	do Chief Inspector of Mines	1,044 26	
Grain, C W	do Gold Commissioner, Barkerville	13 00	
Griffith, J F	do Deputy Minister of Public Works	168 10	
Gunther, E F	do Superintendent of Insurance	234 20	
Gwyer, W K	do Assistant Public Works Engineer	500 90	
Gwynn, J C	do District Registrar of Titles, New Westminster	22 75	
Hannington, H C	do Inspector of Legal Offices	154 91	
Herne, T W	do Government Agent, South Fort George	18 30	
Hewat, R	do " Fernie	8 35	
Hood, A	do Chief Clerk, Public Works Department	12 25	
Hoskins, S H	do Government Agent, Hazelton	35 90	
Hooson, J E	do " Fort Fraser	37 15	
Hunter, H	do " Princeton	3 00	
	Carried forward		675 81

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	675 31
	IX.—TRANSPORT.—*Concluded.*		
	Vote No. 100.—Travelling Expenses of Officers on Duty (not otherwise provided for).—Concluded.		
Jarvis, S S	Travelling expenses (Acting) Government Agent, Nelson	45 15	
Johnstone, H H	do Inspector of Mines	864 50	
Kay, J D	do Steam-boiler Inspector	616 35	
Kilpatrick, T	do Assistant Public Works Engineer	947 45	
Lang, W A	do Sub-Agent, Wilmer	11 00	
Lunn, E C	do Government Agent, Clinton	92 00	
Kraemer, H T	do Deputy Mining Recorder, Quesnel	56 50	
Madigan, G O	do Steam-boiler Inspector	3 25	
Mahony, J	do Government Agent, Vancouver	1 50	
Manson, Hon W	do Minister of Agriculture	475 86	
Michel, D	do Instructor of First-aid Work at Mines	1,025 70	
Muirhead, J	do Assistant Inspector of Electrical Energy	284 75	
McGuire, Hon G A	do Provincial Secretary	10 00	
Macintyre, R W	do Assistant to Chief Engineer of Railways	61 50	
McIntyre, D N	do Acting Secy. to Premier and Deputy Commissioner of Fisheries	498 10	
MacLean, Hon J D	do Provincial Secretary	147 05	
McGown, G C	do Steam-boiler Inspector	945 20	
McGregor, J	do Inspector of Mines	565 15	
McMillan, J H	do "	896 95	
McMullin, J H	do Government Agent, Prince Rupert	48 75	
Newton, J	do Inspector of Mines	465 35	
Norris, H	do Government Agent's Office, Alberni	3 70	
Norris, L	do " Vernon	58 50	
O'Brien, C	do Instructor, Mine-rescue Work	30 15	
O'Brien, G	do Inspector of Mines	463 10	
Oliver, Hon J	do Minister of Agriculture and Railways	13 55	
Oswald, W A	do Assistant Censor of Moving Pictures	923 55	
Pattullo, Hon T D	do Minister of Lands	136 00	
Peck, J	do Chief Inspector of Machinery	153 85	
Pineo, A V	do Departmental Solicitor	21 35	
Rae, W	do Inspector of Tramways	614 25	
Reive, N A	do Clerk, Department of Lands	232 85	
Renwick, R A	do Deputy Minister of Lands	153 55	
Roberts, D P	do Inspector of Electrical Energy	163 55	
Robertson, W F	do Provincial Mineralogist	150 00	
Ross, O W	do Clerk, Inspector of Municipalities Department	16 80	
Ross, Hon W R	do Minister of Lands	1,355 25	
Runnalls, W U	do Inspector of Trust Companies	83 55	
Sandilands, E M	do Government Agent, Queen Charlotte City	7 50	
Smith, A G	do District Registrar of Titles	571 40	
Smith, S McB	do Government Agent, Nanaimo and Alberni	10 00	
Smith, Hon Ralph	do Minister of Finance	22 50	
Stenson, R J	do Government Agent, Kaslo	16 75	
Strachan, R	do Inspector of Mines	588 65	
Sutherland, A	do Steam-boiler Inspector	726 05	
Taylor, Miss T	do Clerk, Public Works Department	81 60	
Taylor, Hon T	do Minister of Public Works	270 00	
Turnbull, J E	do Clerk, Supreme and County Court, New Westminster	1 00	
Walker, P	do Chief Clerk, Provincial Secretary's Department	12 15	
Wallinger, N A	do Goverment Agent, Cranbrook	19 50	
Waters, A	do Supervising Architect	386 25	
Whittaker, H	do Draughtsman and Acting Supervising Architect	33 75	
Wightman, S B	do *re* transfer from Vancouver to Vernon	16 95	
Wilderspin, E C	do Clerk, Attorney-General's Department	8 75	
Williams, T H	do Inspector of Mines	592 80	
Wilmot, E A	do " Dykes	19 10	
Wilmot, H F	do Mining Recorder and Assessor, Vernon	42 60	
Worth, H	do Steam-boiler Inspector	36 30	
Wright, H N	do Travelling Auditor	769 55	
Haupt, W	Repairing light wagon, Wilmer	6 00	
Ryan, R	Car tickets for messengers to Government House	15 00	
Turnbull, G	Removing furniture and household effects to Government Agent's quarters, Fort Fraser	2 50	
Hooson, J E	Expenses of removal from Fort Fraser to Alberni Government Agency	320 29	
Sandilands, E M	do " Queen Charlotte City to Wilmer "	365 75	
Smith, S McB	do " Alberni to Nanaimo "	131 80	
			31,699 07
			32,374 38

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).		
	Vote No. 101.—Administration and Outside Service (including Agricultural Products for Departmental Exhibition-room and Miscellaneous Expenditure).		
Abbott, R C	Coast Markets Commissioner, expenses	10 50	
Atkinson, E M	Stenographer's fees and clerical work	104 10	
Bayntum, S E	do	34 00	
Beales, T W	Services, horticultural survey-work, Gordon Head 10 days @ $2.50	25 00	
Bland, E	Services as Stenographer	8 00	
Brown, L G	Clerical assistance	93 00	
Cahilty, R	Brand Inspector 9 months @ $50; 27 days @ $5; expenses, $110.65	695 65	
Campbell, J J	Expenses *re* organization at Creston and Grand Forks	25 20	
Carr, E B	Collecting statistics in Lower Mainland 1 month 9 d. $70	88 65	
Connor, T	Services *re* orchard survey-work 2 months 30 d. 70	208 90	
Crane, R H	Office-boy 2 " 26 d. 25	70 95	
Eastham, J W	Plant Pathologist, expenses	18 86	
Fisher, A G	Clerical assistance	11 00	
Gibson, N	Stenographer 2 days @ $ 2.50	5 00	
Glendenning, R	Services *re* agricultural survey-work 1 month 70	70 00	
Griffith, F M	Stenographer	17 00	
Harris, L	Foul-brood Inspector 6 months @ $120; expenses, $5.45	725 45	
Heath, J	Services *re* orchard survey-work, etc 3 months 25 d. $70	266 44	
Hedley, J M	do horticultural surveys 12 days 2.50	30 00	
Hirsch, M E	Stenographer 15 " 2	30 00	
Hurst, M	do 7 " 2.50	17 50	
Jackson, F W	Brand Inspector 52 days @ $5; expenses, 3	263 00	
Johnson, D	Junior Clerk 8 months 5 d. 25	204 00	
Johnson, M S	Stenographer 12 days 2.50	30 00	
Johnston, B H	Brand Inspector 3 " 5	15 00	
Lang, A V	Carpenter *re* Home Products Exhibition 4 " 3.50	14 00	
Lawson, F M	Stenographer 2 months 40	80 00	
Mackereth, D	Carpenter 12 " 90	1,080 00	
Marsh, C	Services *re* survey-work 1 " 8 d. 70	88 65	
Middleton, M S	Assistant Horticulturist, expenses	6 70	
McCoy, E	Packing exhibits, etc 20½ days @ $2.50	51 25	
McTaggart, W E	Prairie Markets Commissioner, expenses	36 65	
Neale, A R	Acting Assistant Horticulturist, "	4 15	
Renough, W	Services in exhibition-room 9 days @ $ 3.50	31 50	
Sadleir, E R	Stenographer 12 " 60	23 22	
Steele, E M	do 2 months @ $50; 17 " 2	134 00	
Sheppard, W J	Foul-brood Inspector 5½ months 120	660 00	
Tite, H T	Services, packing and painting in exhibition-room	68 50	
Todd, F D	Foul-brood Inspector 5½ months @ $120; expenses, $18.35	678 35	
Tomlinson, A H	Assistant Horticulturist, expenses	13 50	
Unwin, M	Services as Stenographer at Convention, transcripts, etc	39 70	
Vallance, E	do " " 26 days @ $60	50 32	
White, E W	Fruit Pest Inspector, expenses	12 45	
Wootton, A H	Stenographer	6 70	
Benton, W F	Reports to Prairie Markets Commissioner	19 50	
Berkley, J	do "	28 00	
Brock, F M	do "	1 50	
Clay, W S	do "	31 50	
Flack, A H	do "	33 00	
Huff, H	do "	7 50	
Marsh, W S	do "	34 50	
Morris, F N	do "	18 00	
Steele, F R	do "	19 50	
Stephen, L R	do "	30 00	
Stevens, S H	do "	10 50	
Taylor, A C	do "	31 50	
Teeple, L C	do "	34 50	
Webb, C J	do "	15 00	
Zimmerman, C M	do "	7 50	
Barrett, G A	Grants to students attending Agricultural College	100 00	
Budge, D A	do " " "	100 00	
Butters, H	do " " "	100 00	
Davis, H L	do " " "	100 00	
Evans, C C	do " " "	100 00	
Evans, O C	do " " "	100 00	
Mann, A J	do " " "	100 00	
MacKinnon, R	do " " "	100 00	
Patchett, G	do " " "	100 00	
Robertson, D W	do " " "	100 00	
Ruttan, M E	do " " "	100 00	
Steele, M G	do " " "	100 00	
White, A H	do " " "	100 00	
Witmer, M A	do " " "	100 00	
Black, A	Compensation for destruction of bee-hives	14 00	
Bower, J	do "	5 00	
Coventry, J	do "	20 00	
Donaldson, S W	do "	2 50	
Edmonds, J	do "	4 50	
	Carried forward		

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	.....
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 101.—Administration and Outside Service (including Agricultural Products for Departmental Exhibition-room and Miscellaneous Expenditure).—Continued.		
Fitzpatrick, F L	Compensation for destruction of bee-hives	5 00	
Fletcher, J	do "	9 00	
Hunter, J	do "	5 00	
Loucks, C	do "	4 50	
Mental Hosp, Essondale.	do "	4 00	
McDiarmid, D	do "	10 00	
Seagrief, W T	do "	3 00	
Sing, C	do "	12 00	
Stewart, J	do "	5 00	
Thomas, J	do "	16 00	
Wallace, J	do "	4 00	
Western Fuel Co	do "	9 00	
Advanced Agric Pub Co.	Subscription	3 35	
American Association for Advancement of Science	do	3 50	
American Association of Econom Entomologists	do	25	
American Forestry Assn.	do	6 50	
American Guernsey Cattle Club	do	2 60	
American Society for Horticultural Science.	do	1 50	
Better Fruit Pub Co	do	3 00	
Boston Cooking School Magazine Co	do	1 20	
Breeder's Gazette	do	6 00	
B C News Co	do to various publications	223 20	
Cambridge Univ Press	do	6 13	
Canadian Farm	do	1 00	
Cariboo Observer	do	2 00	
Chicago Packer	do	2 00	
Columbian Co, Ltd	do	1 00	
Cranbrook Herald	do	2 00	
Creston Review	do	2 00	
Daily Produce News	do	5 00	
Entomological News	do	2 00	
Farmer's Advocate	do	1 87	
Farm Press, Ltd	do	3 50	
Field Illustrated	do	1 85	
Fruitman's Guide	do	2 00	
Garden Magazine	do	2 70	
Grain Growers' Guide	do	1 50	
Herald Publishing Co	do	1 65	
Hoad's Dairyman	do	3 00	
Horticultural Pub Co	do	2 00	
Jersey Bulletin & Dairy World	do	1 50	
Kamloops Standard	do	3 00	
Market Growers' Journal	do	1 25	
Milk Dealer	do	1 50	
Milk Trade Journal	do	1 25	
MacLean Pub Co, Ltd	do	2 00	
Nelson Daily News	do	5 00	
News-Advertiser	do	3 00	
News Publishing Co, Webster, U S A	do	3 75	
Nor'west Farmer	do	2 00	
Ontario Exper Union	do	50	
Pacific Coast Packer	do	2 00	
Penticton Herald	do	4 00	
Poultry, Pigeon & Pet Stock Journal	do	1 00	
Puyallup Herald	do	3 00	
Rural Pub Co, Ltd	do	1 00	
Rural Spirit	do	1 00	
Spokesman Review	do	3 00	
Standard, The	do	2 00	
Summerland Review	do	4 00	
Times Ptg & Pub Co, Ltd	do	3 00	
Vegetable Growers' Assn of America	do	2 00	
Vinton & Co	do	5 40	
Washington Irrigat Inst.	do	1 00	
Account, Dept of Public Ptg and Stationery	Postal Guide and Year-book	2 65	
Alberta Telephones	Telephone rental	45 20	
	Carried forward	.....	.....

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 101.—Administration and Outside Service (including Agricultural Products for Departmental Exhibition-room and Miscellaneous Expenditure).—Continued.		
Amer Entomological Soc.	Books	4 00	
Armstrong, J T	Rent of office, Prince George ... 12 months @ $15	180 00	
Bagley & Sons, Ltd, A G.	Nickel-plated badges for Inspectors	4 50	
Banker Farmer	Books	4 64	
Bank of Ottawa, Vanc	Rent of Coast Markets Commissioner's Office ... 5 mos. @ $15; 7 mos. @ $25	250 00	
Bates, J A	Advertisement *re* Pound-keeper	3 78	
B C Assay & Chem Co, Ld	Drugs, corks, bottles, etc	28 30	
B C Electric Ry Co	Electric heater	6 00	
B C News Co, Ltd	Books	6 07	
B C Telephone Co, Nelson	Exchange service	54 15	
Berry, R E	Map of British Columbia	4 95	
Brown Bros & Co, Ltd	Rent of plants for Vancouver Exhibition	4 50	
Brydon, J	Furniture for office, Kelowna	15 00	
Burdin, S K	Caponizing Instrument	3 00	
Burke & Wood, Ltd	Cartage on exhibits to and from Vancouver Exhibition	9 00	
Calwell, H	Cartage	146 65	
Calgary Towel & Cabinet Supply Co	Towel service	6 00	
Canadian Cotton & Wool Waste Co	Cheese-cloth	49 40	
Canadian Express Co	Expressage	31 42	
Can Nor Express Co	do	15 10	
C P Railway Co	Freight, $88.15; telegrams, $774.99	863 14	
Caniff-O'Brien Ptg Co	Printing market reports, business cards, etc	1,186 80	
Cariboo Observer	Advertisement *re* Pound-keeper	9 68	
Carthew, J	2 boxes apples	4 00	
Chambers, W	Fire insurance	6 90	
City of Calgary	Electric light	5 90	
City of Prince George	do	22 65	
City of Prince Rupert	Telephone rental	52 00	
Colonist P & P Co, Ltd	Half-tones, zinc line cuts, etc	271 73	
Craig, R J	Potatoes	1 50	
Crofts, W	Janitor service, Calgary	17 00	
Crystal Spring Water Supply	Water	8 60	
Cutter Laboratary	Purified tuberculin	560 00	
Day, J	Advertisement in "Labour Day Journal"	30 00	
Denker, J	Maps	13 00	
Dominion Express Co	Expressage	426 40	
Dom Govt Telegraphs	Telegrams	25 45	
Edwards Bros	Photographic prints	4 54	
Elec Blue Print & Map Co	Repairing steel tape	40	
E & N Railway Co	Freight	18 56	
Fahrenkapf, J J	Moving stove	75	
Farmer's Advocate	Bound volumes of "Farmer's Advocate"	5 00	
Finlaison, C S	Wood	22 50	
Fleming, E	Developing and printing	26 18	
Fleming, H	do	70 31	
Fraser & Co, Ltd, J A	Chair	15 00	
Freeman's Auction Mart	Hire of tables and chairs for Vancouver Exhibition	3 00	
Garvey, R J	Hauling furniture	3 00	
Goddard Auction Co	10 yards Japanese matting	1 50	
G T P Railway Co	Freight	54 22	
G N Railway Co	Expressage	1 30	
G N W Telegraph Co	Telegrams	124 44	
Green, H	Framing pictures	2 50	
Hankey & Co, G A	Fire insurance	45 00	
Hayman, H G	Rent of post-office drawer, Prince George	4 50	
Heaton's Agency	6 copies of "Heaton's Annual"	6 60	
Hibben & Co, T N	Strong box for Minister of Agriculture	11 50	
Hicks Engraving Co	Zinc etchings and copper half-tone	6 05	
Hinton Electric Const Co	Electrical supplies	129 80	
Hopps Sign Co	Sign	4 50	
Incola Hotel	Hire of room	5 00	
Inland Express Co, Ltd	Expressage	9 30	
Jarvis, S S	Launch-hire	4 00	
Jenkins & Co, M	Livery-hire	2 00	
Jobe, L	Cleaning and repairing typewriter	5 00	
Jones, P W A	Potatoes	4 00	
Kelowna Farmers' Inst	Rent of office ... 2 months @ $5; 10 months @ $10; cleaning office, $14	124 00	
King & Son, P	Books	3 15	
King's Printer	Advertisements *re* Pound-keepers, etc., $92.55; Riker mounts, $174.30	266 85	
Lake Studio	Photographs	3 25	
Lazzerin & Bros, J	Blacksmithing	3 00	
Lee & Co, J K	Rent of office, Calgary	9 40	
Lemon, Gonnason & Co	Oak legs for table	3 75	
	Carried forward		

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 101.—Administration and Outside Service (including Agricultural Products for Departmental Exhibition-room and Miscellaneous Expenditure).—Continued.		
Lippincott Co, J B	Books	22 58	
Lymans, Ltd	Laboratory supplies	8 38	
Macdonald, M F	Showing films, etc., at Pantages Theatre	10 00	
Macmillan Co of Canada	Books	8 79	
Manser Sign Co	Display-cards	18 90	
Maynard & Sons	Saddle and bridle	16 00	
Melrose Co, Ltd	Glass	125 74	
Middleton, M S	Typewriter	75 00	
Might Directories, Ltd	Lists of confectioners, general stores, grocers, etc	26 89	
Moore, W J	Photographs	5 25	
Morrison, J A	Freight on office furniture	4 31	
Multigraph Sales Co, Ltd	Postage on ribbons	14	
Murrill, W A	Books	3 00	
MacMahon, C A	Office-rent, Calgary ..... 8 months @ $15; 2 months @ $10	140 00	
McDiarmid, T A	Professional services *re* "Eggs Marks Act"	50 00	
McKim, D J	Cleaning office, Nelson	5 00	
McKinery, H	Flat-top desk	16 50	
McRae Bros	Books	5 20	
McTavish Bros	Brokerage and duty	7 60	
McTavish & Spencer	Repairing lights	70	
Neil & Cryderman	Livery-hire	2 50	
Nelson Daily News	Advertising	48 60	
Nelson Hardware Co	Blow-torch	9 00	
Nelson Studio	Developing and printing	11 00	
N Y Botanical Garden	Book	6 00	
News-Advertiser	Egg-cards	5 25	
Norwood Bros	Making picture-frames	16 75	
Okanagan Telephone Co	Exchange service	72 15	
O'Neil Co, W N	Plate glass	10 00	
Orange-Judd Co	Books	25 46	
Pacific Cartage Co	Cartage	3 25	
Palmer, J A	Paper	96	
Paradis, E	Annual Postal Guides	5 20	
Plimley, T	Repairing machine, cover for motor-cycle	23 25	
Postmaster, Calgary	Postage-stamps	362 95	
do Grand Forks	Rent of post-office box	3 00	
do Kelowna	Postage-stamps	12 00	
do Nelson	do and rent of box	29 50	
do Prince George	Rent of post-office box	2 50	
do Prince Rupert	do and postage-stamps	11 50	
do Vancouver	Postage-stamps	28 00	
do Vernon	do and rent of box	24 75	
do Victoria	do	550 00	
Powell & Jennings	Apples	10 00	
Powell & Sons, G	Hardware, paint, etc	280 70	
Queen Studio	Photographs	2 25	
Rankin & Cherrill	Electrical supplies	22 84	
Remington Typewrit Co	Rent of typewriters and repairs	13 75	
Rennie & Co, Ltd, W	Supplies for foul-brood work	14 25	
Richards, J R A	Office-rent, Salmon Arm	12 00	
Richards, J	Saddle-horse	50 00	
Scott & Pease	Cartage	1 50	
Shawnigan Lake Lbr Co	Lumber	95 60	
Shortt, Hill & Duncan	Clock and repairs	7 50	
Shotbolt, T	Drugs, etc	45 12	
Sidney Ptg & Pub Co, Ltd	Advertisements *re* Pound-keeper	16 88	
Silver Mfg Co	3 Copies, "Modern Silage Methods"	30	
Similkameen Star	Advertisements *re* Pound-keepers	51 92	
Smith & Co, L T	Multigraphing, Stenographer's services, etc	163 88	
Spencer, Ltd, D	Cheese-cloth, ribbon, paper, etc	18 95	
Stephen, W M	Janitor service, Calgary	2 00	
Stevens Co, Ltd, B C	Head-mirrors	8 14	
Stokes, W B	Micrometer and eye-piece	3 40	
Sturgis & Walton Co	Books	3 51	
Supt of Documents, Washington, D C	Bulletins	10 00	
Svenson, N	Office-rent, Telkwa ..... 2½ months @ $12	30 00	
Sweeney-McConnell, Ltd	Rubber stamps	5 25	
Tinney & Humphries, Ltd	Alterations to counter	7 00	
Tisdalls, Ltd	Safety-axe	1 75	
Trail News	Advertisement *re* Pound-keeper	13 20	
Treadgold, T	Painting signs, Kelowna	10 50	
Trenwith, J H	Electric globes, "	2 20	
United Typewriter Co	Rent of typewriters, ribbons, etc	24 60	
Vanc Daily Province	Advertisements *re* Pound-keepers	53 50	
Venables, R V	Making maps of demonstration orchards	8 00	
	Carried forward		

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	.....
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 101.—Administration and Outside Service (including Agricultural Products for Departmental Exhibition-room and Miscellaneous Expenditure).—Concluded.		
Vernon News Ptg & P Co	Advertising	5 00	
Victoria Book & Stat Co.	Letter-bag	10 00	
Victoria Typewrit Exch.	Care and overhauling machine	5 00	
Wade, R W	1,000 copies of Shepherd's Hand-book	22 00	
Wells, W	Janitor service, Calgary	2 00	
Webb, H	Beans	1 00	
Weiler Bros, Ltd	Glossine and excelsior	10 60	
Weis, J	Janitor service, Prince George	4 00	
Wilson, L C	Stationery, Calgary	82 20	
Wright, F S	10 copies of Northern B.C. Index and Guide	20 00	
			16,701 54
	Vote No. 102.—Board of Horticulture, Expenses of Members attending Meetings.		
Metcalfe, J C	Expenses attending meeting at Victoria	24 50	
McHardy, C F	do "	76 10	
Palmer, R M	do "	24 25	
Streatfield, K R	do "	6 15	
			131 00
	Vote No. 103.—Crop Competitions in Commercial Fruits and Vegetables and Garden and Vacant Lot Competitions and Demonstrations.		
Prize-list	Baynes Lake Farm Garden Competition	35 00	
do	Boswell Farm Garden Competition	70 00	
do	Fairview City Garden Competition	35 00	
do	Gordon Head Strawberry Competition	35 00	
do	Grand Forks Bearing Orchard Competition	35 00	
do	Kamloops City Garden Competition	35 00	
do	Kelowna Orchard Competition	70 00	
do	Hammond Strawberry Competition	35 00	
do	do Raspberry Competition	35 00	
do	Nelson City Garden Competition	35 00	
do	Nicola Valley Farm Garden Competition	35 00	
do	North Okanagan Farm Garden Competition	35 00	
do	Keating Strawberry Competition	35 00	
do	Seymour Arm Farm Garden Competition	35 00	
do	Shirley District Farm Garden Competition	70 00	
do	Sorrento and Blind Bay Young Orchard Competition	35 00	
do	South Vancouver Garden Competition	35 00	
do	Surrey District Farm Garden Competition	35 00	
do	Willow Point Farm Garden Competition	35 00	
do	do Bearing Orchard Competition	35 00	
do	do Strawberry Competition	35 00	
King's Printer	Crop-competition forms	4 55	
Prince Rupert Journal	Advertising garden competition and meeting	7 80	
			852 35
	Vote No. 104.—Demonstration Orchards and Experimental Trees.		
Barlow, C R	Expenses *re* demonstration orchard-work	72 45	
Dominion Express Co	Expressage	2 80	
Johnston, A	Ploughing, pruning, cultivating, etc., Chilliwack Demonstration Plot (half-cost)	158 61	
Layritz Nurseries	Nursery stock	11 25	
Riverside Nurseries	do	73 31	
Rutherford Drug Co	Bluestone	3 25	
Turner, R	Replanting in Salmon Arm Demonstration Orchard	34 20	
Venables, R V	Making 7 maps of experimental orchards	13 50	
Wright, W J	Replanting in Golden Demonstration Orchard	7 50	
			376 87
	Vote No. 105.—Fruit-handling, Cold-storage, and Precooling Investigation Work.		
Agur, R V	Fruit	13 50	
Campbell, M	do	16 20	
Dominion Express Co	Expressage	41 64	
Kelowna Growers' Exch.	Resorting and crating onions	7 35	
Morgan, G	Fruit	16 20	
Review Publish Co, Ltd.	Label cards	2 40	
Summerland Fruit Union	Fruit boxes and paper	9 06	
Wilson, J C	Fruit	21 60	
Wilson Co, B	Storage of fruit in cold storage	21 06	
			149 01
	Carried forward	.....	18,210 77

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	18,210 77
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 106.—Fruit-packing Schools.		
Dominion Express Co...	Expressage, Bonnington Packing School	2 15	
Bell, H A	Apples, Central Park "	6 25	
Duncan, J	Burlap, lumber, nails, etc., " "	4 00	
MacDonald, A	Apples " "	12 50	
Oben, P	do " "	6 25	
Smith, Davidson & Wright	Fruit-wraps, " "	2 40	
Big Y Orchards, Ltd	Apples, Grand Forks "	10 00	
Grand Forks Growers' Co-operative Assn	Wrapping-paper, " "	12 00	
Heaven, C C	Apples, " "	3 00	
Little, J	do " "	15 00	
Ross, W T	do " "	5 00	
Batley, J E	do Harrop "	18 00	
C P Railway Co	Freight on paper, " "	1 57	
McConnell, W J	Lumber, wraps, " "	3 25	
Findlay, J	Cartage, Kaledon "	3 25	
Okanagan Falls Tdg Co..	Apples, " "	19 00	
Penticton Fruit Growers' Union	Paper, " "	4 50	
Bonnie Brae Fruit Farm	Apples and paper, Keating "	23 00	
Keremeos Land Co, Ltd.	do " Keremeos "	62 95	
Harwood, J	Haulage, Long Lake "	2 50	
Vernon Fruit Union	Apples and paper, " "	40 75	
Cook, G	Lumber, lath, and labour, Naramata "	4 25	
Summerland Fruit Union	Paper, " "	6 45	
Funk, J L	Apples, Needles "	22 50	
Dominion Express Co...	Expressage on paper, Nelson "	4 95	
Horswill & Co, A S	Apples, " "	9 90	
Hyslop, J	do " "	27 00	
Kootenay Fruit Growers' Union	do " "	13 75	
Summerland Fruit Union	Paper, " "	15 00	
British Columbia Growers	Apples, Okanagan Centre "	42 50	
Joslyn, N V	Cartage, " "	3 00	
Kelowna Growers' Exch.	Freight, " "	1 55	
Pixton, P W	Sacks, string, and labour, " "	2 75	
Rainbow Ranch, Ltd	Apples and paper, " "	21 00	
Penticton Fruit Growers' Union	do " Penticton "	42 00	
Crebbin, W	Apples, South Slocan "	12 00	
Groom, E	do " "	5 00	
Jones, W H	Paper, " "	4 05	
Soucey, F	Apples, " "	5 00	
Ritchie, T N	Lumber for tables, Summerland "	5 03	
Summerland Fruit Union	Apples and paper, " "	66 50	
Harwood, J	Haulage, Vernon "	5 00	
Vernon Fruit Union	Apples and paper, " "	66 00	
Campbell, J J	do " Willow Point "	38 55	
Lambert Co, Ltd, A G...	Lumber, " "	5 28	
Prize-list	Armstrong Fair	30 00	
do	Arrow Lakes "	30 00	
do	Duncan "	5 00	
do	Kamloops "	30 00	
do	Kelowna "	35 00	
do	Natal "	30 00	
do	Needles "	30 00	
do	Nelson "	15 00	
do	Summerland "	75 00	
do	Trail "	30 00	
Sewell, J	Services as Packing School Instructor.. 1 month 7 d. @ $75 ; expenses, $ 62.80	154 73	
Loveday, F E	Dominion Fruit Inspector .....27 days 1.50 ; " 148.10	188 60	
Lawler, J	Services as Packing School Instructor..10 " 100 ; " 57.65	93 36	
Castner, J B	do " .....1 month 10 days @ $100	132 25	
		1,565 27	
	Cr. Refund of fees received from Packing Schools	66 00	
			1,499 27
	Vote No. 107.—In Aid of Agricultural Associations.		
Abbott, R C	Services as Judge at Fall Fairs..... expenses, $ 27.70	27 70	
Appleton, O B	do ..... 4½ days @ $4 ; " 22.85	40 85	
Barlow, C R	do ..... " 19.25	19 25	
Gibson, W	do ..... 17 days @ $4 ; " 110.60	178 60	
Loveday, F E	do ..... 2 " 4 ; " 8	16 00	
Miller, R H	do ..... 2 " 4 ; " 28.85	36 85	
Pargeter, J T	do ..... 12 " 4 ; " 46.45	94 45	
	Carried forward	.....	19,710 04

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	19,710 04
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 107.—In Aid of Agricultural Associations.—Continued.		
Reid, H D	Services as Judge at Fall Fairs..... 15 days @ $4; expenses, $112.30	172 30	
Sellars, T	do ..... 9 " 4; " 18.05	54 05	
Shannon, S	do ..... 8 " 4; " 28.75	60 75	
Stonehouse, W	do ..... 11 " 4; " 19.60	63 60	
Turner, Jas	do ..... 16½ " 4; " 86.60	152 60	
Turner, John A	do ..... 15 " 4; " 96.40	156 40	
Vincent, C C	do ..... 5½ " 5; " 38.80	66 30	
Waby, H E	do ..... 13 " 4; " 44.30	96 30	
Wilson, J J	do ..... 12 " 4; " 41.90	89 90	
Wright, B	do ..... 13 " 4; " 97.20	149 20	
Agassiz Agric Assn	Grant in aid of prize-lists	250 00	
Alberni Agric Assn	do	200 00	
Armstrong & Spallumcheen Agric Assn	do	1,000 00	
Arrow Lakes Agric Assn.	do	300 00	
Barriere, Chinook Cove, Louis Creek & Chu Chua Agric Assn	do	100 00	
Bella Coola Agric Assn	do	100 00	
Burquitlam "	do	150 00	
Burton Dist "	do	100 00	
Central Park "	do	250 00	
Chilliwack "	do	600 00	
Cobble Hill "	do	100 00	
Comox "	do	300 00	
Cowichan "	do	600 00	
Cranbrook "	do	600 00	
Elk Valley "	do	100 00	
Fort George "	do	500 00	
Fruitvale "	do	100 00	
Golden "	do	400 00	
Grand Forks "	do	600 00	
Hazelton "	do	300 00	
Kamloops "	do	700 00	
Kelowna "	do	600 00	
Langley "	do	200 00	
Lasqueti Island "	do	100 00	
Ladysmith "	do	250 00	
Maple Ridge "	do	200 00	
Matsqui "	do	200 00	
Mission "	do	200 00	
Nanoose "	do	100 00	
Needles & Whatshan "	do	200 00	
Nelson "	do	800 00	
N & S Saanich "	do	300 00	
North Thompson "	do	150 00	
North Vancouver "	do	250 00	
Port Coquitlam "	do	75 00	
Pritchard "	do	100 00	
Robson & Lower Arrow Lakes "	do	100 00	
Slocan Lake "	do	150 00	
Summerland "	do	400 00	
Surrey District "	do	250 00	
Trail Fruit Fair Assn	do	250 00	
Windermere Dist Agricultural Association	do	300 00	
Wasa Stock Agric Assn	do	100 00	
Forward, E	Ladysmith Sec., District No. 1, grant in aid of poultry-shows	320 00	
Nicol, D	Victoria " 2, "	480 00	
Barclay, J	South Vancouver " 3, "	480 00	
Mileson, F	Chilliwack " 4, "	360 00	
Mottley, E McC	Kamloops " 5, "	280 00	
Penty, S B	Penticton " 6, "	480 00	
Sellars, T	Nakusp " 7, "	280 00	
Horsted, G	Nelson " 8, "	1,000 00	
Marcer, A	Fernie " 9, "	280 00	
Hugh, W	Secretary, Bee-keepers' Association of British Columbia, grant in aid of prizes	50 00	
Taylor, J	do Kamloops Stock-breeders' Association, "	300 00	
Wright, F S	do Northern British Columbia Agricultural Association, grant in aid of prizes, $500; buildings, $500; fair at Prince Rupert	1,000 00	
Boldthen, H	Launch-hire	10 50	
Boyde, A E	Freight	1 00	
B C Telephone Co	Telephone	1 50	
C P Railway Co	Freight	1 95	
Currie, S H	Auto-hire	10 00	
Dominion Express Co	Expressage	28 31	
	Carried forward	.....	19,710 04

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	19,710 04
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 107.—In Aid of Agricultural Associations.—Concluded.		
King's Printer	Reports, agricultural fairs, advertising	109 55	
Mackenzie, D E	Cartage and freight on refrigerator	9 13	
Northern Transfer Co	" on tents	2 90	
Pandora Sail & Tent Fact	Repairs to tents	6 55	
Postmaster, Victoria	Postage-stamps	30 00	
Provincial Secretary (Mail Dept)	300 post-cards, stamped, 1c	3 00	
Royal Horticultural Soc	6 judging rules	2 20	
Unwin, L	Auto-hire	12 00	
			19,638 69
	Vote No. 108.—In Aid of British Columbia Dairymen's Association.		
Dunn, J S	Services *re* Milk and Cream Competition, 4 days @ $3	12 00	
Eastham, J W	Expenses making bacterial tests	16 25	
Marker, C	Services and expenses, judging butter	25 00	
Berry, J W	Expenses, attending Executive and committee meetings and Convention	38 50	
Duncan, W	do " meetings	15 10	
Grimmer, N	do Convention	18 00	
Harris, G S	do " Executive and committee meetings	56 00	
Hereron, M	do "	42 40	
Moore, P H	do " and committee meeting	17 05	
Raper, E	do "	13 10	
Rive, E	do "	10 00	
Steeves, J M	do "	11 65	
Thornbery, G H	do "	13 25	
Tierney, W H	do "	53 80	
Watson, J B	do "	13 15	
Wells, E A	do Executive meetings	18 80	
Canadian Farm	Subscription	3 50	
Farm & Dairy	do	28 70	
Farm & Ranch Review	do	6 75	
Farmer's Advocate	do	33 00	
Fruit & Farm Magazine	do	1 50	
Hoad's Dairyman	do	26 40	
Prize-list	Butter Competition	140 00	
do	Cow-testing "	160 00	
do	Producers' Milk "	67 50	
do	do Cream "	67 50	
do	Approved Milk "	67 50	
Hassen, M	Special prizes, Armstrong and Spallumcheen Agricultural Society	72 50	
Ashwell, J H	do Chilliwack Agricultural Association	115 00	
Davenport-Chapman, F	do Cowichan Fair	10 00	
Bishop, F J	do "	20 00	
Rolston, H S	do Vancouver Exhibition Association	122 50	
Black Diamond Lodge	Rent of hall for Convention	20 00	
Colonist P & P Co	500 copies of report, $186; copper half-tone, $7.05	193 05	
De Laval Supply Co	Special prizes and expressage	131 05	
Gifford, T	Shield	2 50	
King's Printer	Sundry printing, etc	37 25	
Nanaimo Creamery Assn	Use of creamery and storage	2 00	
N Okanagan Dairymen's Association	Rebate of 25c. on 26 members	6 50	
Postmaster, Victoria	Postage-stamps	40 00	
Rudd, J M	Rent of exhibition-room, Nanaimo	5 00	
Shortt, W J	Silver cups and medals	165 00	
Shortt, Hill & Duncan, Ld	do engraving and repairing	187 50	
			2,106 25
	Vote No. 109.—In Aid of British Columbia Entomological Society.		
Treherne, R C	Secretary, British Columbia Entomological Society, grant in aid	.....	250 00
	Vote No. 110.—In Aid of British Columbia Fruit-growers' Association.		
Abriel, T	Expenses, attending annual and Executive meetings	231 25	
Agur, R V	do annual meeting	33 50	
Anderson, J	do "	21 40	
Barnes, C E	do annual and Executive meetings	116 65	
Campbell, J J	do annual meeting	24 55	
Castner, J B	do committee meeting	11 15	
Chapple, W E	do annual meeting	46 05	
Chapple, Mrs W E	do "	25 05	
Compton, J	do "	29 45	
	Carried forward	.....	41,704 98

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	41,704 98
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	***Vote No. 110.—In Aid of British Columbia Fruit-growers' Association.*—Concluded.**		
Conklin, R S	Expenses, attending annual meeting	42 50	
Dilworth, L	do "	22 05	
Hardy, W H	do "	15 55	
Heggie, G	do Executive meetings	99 20	
Howe, A T	do annual meeting	43 05	
Hoyle, J H	do "	46 30	
Ivatt, F M	do "	10 85	
Johnstone, J	do "	47 66	
Knotts, N G	do "	7 00	
Lawrence, J H	do "	12 75	
Metcalfe, J C	do "	12 00	
Mutch, E W	do meeting at Moose Jaw	17 35	
Palmer, R M	do annual and Executive meetings, etc	145 94	
Powell, T	do annual meeting	40 20	
Reekie, J E	do annual and Executive meetings	125 85	
Rooke, J	do " " etc	182 00	
Somers, W F	do committee meeting at Kelowna	52 30	
Spencer, W C	do annual meeting	21 85	
Stacey, F B	do "	8 45	
Taylor, L E	do "	43 05	
Thornton, G I	do "	21 30	
White, G J C	do "	18 45	
Albertan Pub Co, Ltd	Advertising	61 05	
Bulletin Co, Ltd	do	29 19	
Calgary Vacant Lots Garden Club	Lumber and electrical work	29 00	
California Fruit News	Subscription	3 50	
C P Railway Co	Telegrams, $50.43; freight, $53.26	103 69	
Canniff-O'Brien Ptg Co	Envelopes, window-cards, printing circulars, etc	72 55	
Cleland-Dibble Engraving Co, Ltd	Duotone cuts of strawberries	18 70	
Colonist P & P Co, Ltd	30,000 booklets	1,400 00	
Commercial, The	Advertising	35 00	
Commercial Review	do	30 00	
Co-operative Fruit Growers' Assn, Wynndel	Strawberries	4 75	
Deachman, R J	Advertising	25 00	
Dom Govt Telegraphs	Telegram	25	
Edmonton Journal	Advertising	38 96	
Farm & Ranch Review	do	40 64	
Fruit & Farm Magazine	do	30 00	
Globe Sign Works	Cotton banner	9 75	
Gordon Head Fruit Growers' Association	Strawberries	7 50	
G N W Telegraph Co	Telegrams	7 80	
Harrison, F	Removing fruit and cleaning exhibition-hall	1 50	
Herald Pub Co, Calgary	Advertising	135 14	
Hicks Engraving Co	Zinc etchings	190 75	
Hunt, H G	Advertising cards	15 90	
Irwin Co, Ltd, J	Apples	2 25	
King's Printer	Printing annual report, programmes, directory, etc	318 64	
Lethbridge Herald Ptg Co, Ltd	Advertising	16 50	
Manitoba Free Press Co	do	13 44	
Medicine Hat News	do	7 77	
MacLean Co, H C	do	26 00	
McTaggard, W E	(Paid) Apples, labour	18 00	
Moose Jaw Ev'ng Times	Advertising	30 08	
News-Advertiser	do and printing	164 87	
Oliver, W J	Photos of exhibits	16 25	
Phoenix Pub Co, Ltd	Advertising	34 06	
Plunkett & Savage	Apples	10 20	
Prince Albert Herald	Advertising	24 30	
Postmaster, Victoria	Postage-stamps, post-cards	116 50	
Postmaster, Calgary	do	20 00	
Red Deer Advocate	Advertising	29 20	
Ross, A M	Typewriting	2 00	
Saskatoon Daily Star	Advertising	46 64	
Saturday Press Pub Co	do	28 35	
Sauerbrunn, C F	Drawings of fruit	77 50	
Sproule, H J	Designs	11 00	
Telegram Printing Co, Ltd	Advertising	68 52	
Treleaven & Campbell	Apples	5 00	
Tribune Publishing Co	Advertising	7 56	
Vernon Fruit Co, Ltd	Fruit	34 10	
Weiler Bros	Rent of chairs for annual meeting, $3.12; 1 chair broken, $1.25	4 37	
			4,998 42
	Carried forward	.....	46,703 40

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	46,703 40
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 111.—In Aid of British Columbia Poultry Association.		
Abbott, R C	Expenses, attending Annual Convention	58 85	
Anderson, A H	do "	27 80	
Bearcroft, W C	do "	22 35	
Dawson, A J	do "	16 10	
Dougan, J J	do "	31 65	
Higgs, W M	do Executive meeting	8 75	
Higgs, Mrs W M	do Annual Convention	29 30	
Hincks, H A	do "	29 75	
Horstead, G	do " and Executive meetings	96 15	
Lawrence, J T	do "	6 65	
Marshall, W T	do "	28 70	
McKay, A E	do "	8 05	
Nicholson, J	do "	28 60	
Orr, E A	do " and Executive meetings	68 55	
Parkinson, B	do "	8 35	
Paton, C A	do "	26 70	
Phillips, D E	do "	13 00	
Price, A G	do " and Executive meeting	70 50	
Reid, H D	do " "	76 30	
Sheppard, C R	do "	9 35	
Thurston, J A	do " and Executive meeting	55 65	
Wadsworth, J A	do "	3 30	
Wood, J	do "	29 30	
Artistic Wire & Iron W'ks	Chicken-coops and crating	137 50	
Can Pacific Railway Co	Telegrams, 76c.; freight, $7.07	7 83	
Dom Carton & Ptg W'ks	Printing badges, etc	11 50	
E & N Railway Co	Freight	9 42	
Fleming, E	Photos, frames, etc	14 15	
Gibbs, W R	Duplication of prizes awarded at Medicine Hat	3 50	
Jones, R	do " Saskatoon	6 00	
King's Printer	Printing	52 55	
Pacific Transfer Co	Hauling coops	9 00	
Postmaster, Victoria	Postage-stamps	40 00	
P P & Pet Stock Journal	Advertisement	10 00	
Taylor & Co, A G	Badges	28 00	
Scott, W N	Expenses, lecturing at Convention	15 35	
Uuited Typewriter Co	Typewriting and carbons	7 50	
Prize-list	Special prizes awarded to pens laying 1,000 eggs or more	35 00	
Prize-list	Returned Wounded Soldiers' Poultry Club	30 00	
			1,171 00
	Vote No. 112.—In Aid of British Columbia Stock-breeders' Association.		
Bishop, F J	Expenses, attending meetings of Association	11 00	
Davie, A	do "	79 70	
Erskine, J	do "	15 20	
Patterson, A D	do "	79 70	
Sangster, G	do "	57 85	
Smith, S	do "	11 25	
Webb, H	do "	17 70	
Abbott, J L G	Refund of transportation on pure-bred stock	39 20	
Banford Bros	do "	13 26	
Barton, E H	do "	7 55	
Beddall, J M	do "	10 50	
Borthwick, G A	do "	7 10	
Brehant, A	do "	5 75	
Chapman, H	do "	30 60	
Croft, J H	do "	11 71	
Davie, A	do "	19 30	
Dilworth, L	do "	17 00	
Fesser, J	do "	8 25	
Forsyth, W	do "	13 00	
Fowler, L G	do "	30 50	
Fraser, W	do "	36 85	
Gordon, A	do "	6 50	
Halse, G H	do "	148 10	
Hassen, M	do "	18 50	
Higginson, J A	do "	15 65	
Hughes, G R	do "	165 65	
Hunter, A W	do "	18 50	
Keenan, J W	do "	9 45	
Knight, A	do "	7 50	
Lasser, O	do "	3 15	
Marshall, A G	do "	1 00	
Moore, P H	do "	5 50	
Morrison, A C	do "	2 55	
Nelson, H S	do "	20 10	
	Carried forward	.....	47,874 40

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	47,874 40
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 112.—In Aid of British Columbia Stock-breeders' Association.—Concluded.		
Parker, T	Refund of transportation on pure-bred stock	25 17	
Paterson, A D	do "	33 85	
Paterson, W	do "	9 80	
Rooke, J	do "	18 85	
Robertson Bros	do "	2 45	
Rutherford, J G	do "	33 35	
Shannon Bros	do "	6 25	
Shaver, J S	do "	4 00	
Smith, W E	do "	9 19	
Smith, T D	do "	27 60	
Tunbridge, N F	do "	12 65	
Weaver, W	do "	7 00	
Chilliwack Agr' Assoc'n	Stock-judging prizes awarded at Chilliwack Fall Fair	48 00	
Farm & Dairy	Subscriptions	7 00	
Farm & Ranch Review	do	23 25	
Farmer's Advocate	do	74 00	
Fruit & Farm Magazine	do	6 75	
King's Printer	Sundry printing	47 50	
Perrier, W	Removing fruit and cleaning hall for meeting of Association	1 50	
Postmaster, Victoria	Postage-stamps	20 00	
Rural Publishing Co, Ld	Subscriptions	9 10	
Western Canada Live Stock Union	Subscription for 1916 and 1917, $200; grant in aid, $500	700 00	
Weiler Bros	Rent of chairs, $3.13; 1 broken chair, $1.25	4 38	
			2,076 76
	Vote No. 113.—In Aid of Flockmasters' Association.		
Aitken, A C	Secretary, Vancouver Island Flockmasters' Association, grant in aid	.....	250 00
	Vote No. 114.—In Aid of Farmers' Institutes (including Educational Work).		
Aldergrove Institute	Allowance to Secretary, A. K. Goldsmith	25 00	
Arrow Park "	do J. H. Hall	25 00	
Arrow & Slocan L'ks "	do L. H. Rawlings	25 00	
Barriere "	do G. H. DeLey	25 00	
Baynes District "	do J. Radford	25 00	
Bella Coola "	do A. Hammer	25 00	
Bulkley Valley "	do W. Crotean	25 00	
Burton City "	do C. E. Turner	25 00	
Cape Scott "	do C. Wadey	25 00	
Cariboo "	do A. S. Vaughan	25 00	
Canford "	do A. M. Fraser	25 00	
Celista "	do C. Riley	25 00	
Central Park "	do W. Kirkham	25 00	
Chilliwack "	do H. Webb	25 00	
Comox "	do J. A. Halliday	25 00	
Coombs "	do W. H. Pratt	25 00	
Coquitlam "	do F. Cockerill	25 00	
Cortes Island "	do J. Manson	25 00	
Cowichan "	do W. A. McAdam	25 00	
Cranbrook "	do C. M. Ormston	25 00	
Crawford Bay "	do W. W. Mooney	25 00	
Creston "	do J. A. Lidgate	25 00	
Columbia Valley "	do P. D. Gilbert	25 00	
Chilco "	do R. Denison, 9 months	18 75	
Delta "	do N. A. McDiarmid	25 00	
Denman Island "	do G. Dalziel	25 00	
Dome Creek "	do G. R. Mainwaring	25 00	
Eagle Bay "	do P. D. Stoops	25 00	
Eaglet Lake "	do A. E. Brown	25 00	
Eagle Riv Valley "	do J. Mizon	25 00	
Elk Valley "	do H. S. Platt	25 00	
Endako "	do W. V. Duncan	25 00	
Evergreen "	do D. Spooner	25 00	
Fort Fraser "	do W. A. Tooker	25 00	
Fern Ridge "	do G. Alderson, 10 months	20 80	
Fire Valley & Lake Shore "	do G. H. McLennan	25 00	
Fort George "	do W. Bell	25 00	
Fort Steele "	do G. S. Baker	25 00	
Francois Lake "	do J. M. Macturk	25 00	
Glenside "	do H. S. Letts	25 00	
Golden "	do T. King	25 00	
	Carried forward	.....	50,201 16

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	50,201 16
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 114.—In Aid of Farmers' Institutes (including Educational Work).—Continued.		
Graham Island Institute.	Allowance to Secretary, E. F. Evans	25 00	
Graham Island, E Coast	do A. Delahay	25 00	
Graham Island, Tow Hill	do C. W. Baker	25 00	
Grand Forks	do A. S. McKim	25 00	
Greenwood	do K. C. B. Frith	25 00	
Hardy Bay	do E. L. Morris, 3 months	6 25	
Harrop and Dist	do W. J. McConnell	25 00	
Hindon	do D. B. Butchart, 9 months	18 75	
Howe Sound	do W. W. Winn	25 00	
Islands	do E. C. Collins	25 00	
Jaffray	do R. Cameron	25 00	
Kaledon	do F. W. King	25 00	
Kamloops	do J. F. Smith	25 00	
Kelowna	do R. L. Dalglish	25 00	
Kent	do H. D. Howard	25 00	
Kispiox	do J. Anderson	25 00	
Kitimat	do C. M. Carlsen	25 00	
Kitsumgallum	do W. A. Myers	25 00	
Kootenay Lake	do B. F. Palmer	25 00	
Kootenay River	do J. M. Shipley	25 00	
Ladysmith	do T. Bryant	25 00	
Lake District	do F. J. Seager	25 00	
Langley	do J. Allen	25 00	
Lasqueti Island	do W. B. T. Grant	25 00	
Lumby	do M. Gibson	25 00	
Malcolm Island	do F. Myntte, 11 months	22 90	
Mapes	do W. H. Matheson	25 00	
Maple Ridge	do N. G. Knotts	25 00	
Martin's Prairie	do A. E. Boyde	25 00	
Marysville & Dist	do A. G. James	25 00	
Matsqui	do P. Jackman	25 00	
McBride	do C. B. Cliff	25 00	
Metchosin	do E. B. Ulph	25 00	
Mission	do J. A. Catherwood	25 00	
Mount Olie	do C. P. Rogers	25 00	
Moyie Valley	do E. A. Lythgoe	25 00	
Nass Valley	do A. F. Priestley	25 00	
Nahwitte, Strandby and District	do A. Moran	25 00	
Nanaimo-Cedar	do V. Hoyt	25 00	
Naramata	do T. H. Rayner	25 00	
Naramata	do J. H. Pushman, 6 months	12 50	
Nechako	do H. J. Goldie	25 00	
Needles	do O. J. Aspinall	25 00	
New Denver	do R. G. Angell	25 00	
Newgate & Dist	do E. N. Lynn	25 00	
Nicola	do R. Dodding	25 00	
Nitinat	do R. Dickinson	25 00	
N Okanagan	do C. S. Handcock	25 00	
Notch Hill and Shuswap	do C. G. Andrews	25 00	
N Vancouver	do E. Wilmot	25 00	
N Bend & Keefers	do H. Dykins	25 00	
Okanagan	do J. R. Brown	25 00	
Okanagan Centre	do P. N. Pixton	25 00	
Okisollo	do H. Bentley	25 00	
Peachland	do W. Buchanan	25 00	
Pender Island	do A. H. Menzies	25 00	
Pend d'Oreille	do S. N. Cooper	25 00	
Penticton	do E. J. Chambers	25 00	
Procter and Dist	do P. Coles	25 00	
Pouce Coupe	do I. D. Vandewater	25 00	
Quadra	do A. G. Bagot	25 00	
Quadra	do A. G. Bagot, 8 months	16 65	
Refuge Bay	do A. E. Allen	25 00	
Revelstoke	do W. E. Smith	25 00	
Richmond	do J. W. McGinnis	25 00	
Robson	do G. R. Brown	25 00	
Rock Creek	do D. R. Tait	25 00	
Rosehill	do J. McKechnie	25 00	
Rossland	do J. Schmidt	25 00	
Salmon Arm	do R Turner	25 00	
Salmon Valley	do C. S. Hall	25 00	
Sayward	do A. E. Arnold	25 00	
Sayward	do E. W. Towler, 4 months	8 33	
Seymour Arm Dist	do C. Collings	25 00	
	Carried forward	.....	50,201 16

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		50,201 16
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	***Vote No. 114.—In Aid of Farmers' Institutes (including Educational Work).*—Continued.**		
Shawnigan Institute	Allowance to Secretary, A. Nightingale	25 00	
Shirley District "	do J. F. Layson	25 00	
Silver Creek "	do D. G. Eaton	25 00	
Skidegate Inlet "	do T. R. Davey	25 00	
Slocan Valley "	do E. W. Frink	25 00	
Sooke "	do J. F. Erskine	25 00	
South Kootenay "	do W. A. Barrett	25 00	
South Saanich "	do F. F. Gold	25 00	
South Slocan "	do E. Jamieson	25 00	
Spallumcheen "	do G. H. Gamble	25 00	
Spiller River "	do T. Reynolds	25 00	
Squamish "	do F. W. Young	25 00	
St Elmo "	do O. E. Dent	25 00	
Strawberry Hill "	do J. M. Moffat	25 00	
Sumas "	do C. Beebe	25 00	
Summerland "	do J. Tait	25 00	
Sunnyside "	do F. J. Lancaster	25 00	
Surrey "	do H. Bose	25 00	
Texada Island "	do D. Jones	25 00	
Ucluelet "	do W. Thornton	25 00	
Upper Skeena "	do J. Thompson	25 00	
Upper N Thompson "	do A. Miller, 6 months	12 50	
Victoria "	do C. E. King	25 00	
Welcome Harbour "	do F. O. Cole	25 00	
West Kootenay "	do G. G. McLaren	25 00	
Westbank "	do M. Russell	25 00	
Wheeler Mountain "	do S. J. Nelson	25 00	
Willow Point "	do K. V. Cuthbe	25 00	
Windermere "	do A. G. Cuthbert	25 00	
White Creek Valley "	do A. F. Porter, 9 months	18 75	
Aldergrove "	Grant in aid, 76 members	38 00	
Arrow Park "	do 32 "	16 00	
Arrow & Slocan Lakes "	do 28 "	14 00	
Barriere "	do 78 "	39 00	
Baynes Dist "	do 42 "	21 00	
Bulkley Valley "	do 30 "	15 00	
Bella Coola "	do 50 "	25 00	
Burton City "	do 34 "	17 00	
Cape Scott "	do 37 "	18 50	
Cariboo "	do 54 "	27 00	
Celista "	do 30 "	15 00	
Coombs "	do 43 "	21 50	
Cranbrook "	do 58 "	29 00	
Creston "	do 210 "	77 50	
Cortes Island "	do 21 "	10 50	
Central Park "	do 38 "	19 00	
Canford "	do 29 "	14 50	
Chilco "	do 29 "	14 50	
Chilliwack "	do 104 "	51 00	
Columbia Valley "	do 15 "	7 50	
Comox "	do 124 "	56 00	
Coquitlam "	do 28 "	14 00	
Cowichan "	do 114 "	53 50	
Crawford Bay "	do 53 "	26 50	
Delta "	do 166 "	66 50	
Denman Island "	do 62 "	31 00	
Dome Creek "	do 52 "	26 00	
Eagle Bay "	do 22 "	11 00	
Eagle River Valley "	do 101 "	50 25	
Eaglet Lake "	do 51 "	25 50	
Elk Valley "	do 30 "	15 00	
Endako "	do 49 "	24 50	
Evergreen "	do 29 "	14 50	
Fern Ridge "	do 41 "	20 50	
Fire Valley & Lake Shore "	do 18 "	9 00	
Fort Fraser "	do 34 "	17 00	
Fort George "	do 71 "	35 50	
Fort Steele "	do 39 "	19 50	
Francois Lake "	do 34 "	17 00	
Glenside "	do 59 "	29 50	
Golden "	do 25 "	12 50	
Graham Island "	do 32 "	16 00	
Graham Island, East Coast "	do 22 "	11 00	
Grand Forks "	do 33 "	16 50	
	Carried forward		50,201 16

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		50,201 16
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 114.—In Aid of Farmers' Institutes (including Educational Work).—Continued.		
Greenwood Institute	Grant in aid, 22 members	11 00	
Harrop & Dist "	do 41 "	20 50	
Hendon "	do 32 "	16 00	
Howe Sound "	do 35 "	17 50	
Islands "	do 79 "	39 50	
Jaffray "	do 30 "	15 00	
Kaledon "	do 31 "	15 50	
Kamloops "	do 62 "	31 00	
Kelowna "	do 54 "	27 00	
Kent "	do 76 "	38 00	
Kispiox "	do 37 "	18 50	
Kitimat "	do 25 "	12 50	
Kitsumgallum "	do 76 "	38 00	
Kootenay Lake "	do 20 "	10 00	
Kootenay River "	do 59 "	29 50	
Ladysmith "	do 35 "	17 50	
Lake District "	do 25 "	12 50	
Langley "	do 55 "	27 50	
Lasqueti Island "	do 44 "	22 00	
Lumby "	do 78 "	39 00	
Malcolm Island "	do 39 "	19 50	
Mapes "	do 39 "	19 50	
Maple Ridge "	do 70 "	35 00	
Martin's Prairie "	do 114 "	53 50	
Marysville "	do 21 "	10 50	
Matsqui "	do 65 "	32 50	
Metchosin "	do 69 "	34 50	
Mission "	do 53 "	26 50	
Mount Olie "	do 29 "	14 50	
Moyie Valley "	do 39 "	19 50	
McBride "	do 33 "	16 50	
Nass Valley "	do 20 "	10 00	
Nanaimo-Cedar "	do 141 "	60 25	
Nahwitte "	do 26 "	13 00	
Naramata "	do 21 "	10 50	
Nechako "	do 32 "	16 00	
Needles "	do 27 "	13 50	
New Denver "	do 52 "	26 00	
Newgate and Dist "	do 32 "	16 00	
Nicola "	do 83 "	41 50	
N Bend & Keefers "	do 30 "	15 00	
North Vancouver "	do 55 "	27 50	
North'rn Okanagan "	do 149 "	62 25	
Notch Hill and Shuswap "	do 68 "	34 00	
Okanagan "	do 127 "	56 75	
Okanagan Centre "	do 67 "	33 50	
Okisollo "	do 18 "	9 00	
Peachland "	do 26 "	13 00	
Pend d'Oreille "	do 30 "	15 00	
Pender Island "	do 50 "	25 00	
Penticton "	do 22 "	11 00	
Pouce Coupe "	do 53 "	26 50	
Procter and Dist "	do 70 "	35 00	
Quadra "	do 47 "	23 50	
Refuge Bay "	do 20 "	10 00	
Revelstoke "	do 83 "	41 50	
Richmond "	do 38 "	19 00	
Robson "	do 70 "	35 00	
Rock Creek "	do 47 "	23 50	
Rose Hill "	do 69 "	34 50	
Rossland "	do 73 "	36 50	
Salmon Valley "	do 25 "	12 50	
Sayward "	do 36 "	18 00	
Shawnigan "	do 90 "	45 00	
Shirley District "	do 45 "	22 50	
Silver Creek "	do 21 "	10 50	
Skidegate Inlet "	do 29 "	14 50	
Spallumcheen "	do 203 "	75 75	
Spiller River "	do 31 "	15 50	
Surrey "	do 91 "	45 50	
St Elmo "	do 17 "	8 50	
Sunnyside "	do 36 "	18 00	
Strawberry Hill "	do 39 "	19 50	
Slocan Valley "	do 31 "	15 50	
South Slocan "	do 31 "	15 50	
Salmon Arm "	do 84 "	42 00	
	Carried forward		50,201 16

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	50,201 16
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	***Vote No. 114.—In Aid of Farmers' Institutes (including Educational Work).*—Continued.**		
South Kootenay Institute	Grant in aid, 78 members	39 00	
Summerland "	do 77 "	38 50	
Sooke "	do 19 "	9 50	
Squamish "	do 44 "	22 00	
Seymour Arm Dist "	do 30 "	15 00	
Sumas "	do 32 "	16 00	
South Saanich "	do 59 "	29 50	
Texada Island "	do 66 "	33 00	
Tow Hill, Graham I. "	do 17 "	8 50	
Ucluelet "	do 24 "	12 00	
Upper N Thompson "	do 43 "	21 50	
Upper Skeena "	do 71 "	35 50	
Victoria "	do 81 "	40 50	
Welcome Harbour "	do 35 "	17 50	
West Kootenay "	do 50 "	25 00	
Westbank "	do 20 "	10 00	
Wheeler Mountain "	do 19 "	9 50	
White Creek Valley "	do 51 "	25 50	
Willow Point "	do 30 "	15 00	
Windermere "	do 54 "	27 00	
Alberni "	Prize-money in connection with Field-crop Competitions	50 00	
Aldergrove "	do "	25 00	
Arrow Lakes "	do "	50 00	
Bella Coola "	do "	25 00	
Bulkley Valley "	do "	50 00	
Burton "	do "	25 00	
Cape Scott "	do "	50 00	
Chilco "	do "	25 00	
Chilliwack "	do "	50 00	
Columbia Valley "	do "	50 00	
Coombs "	do "	25 00	
Cowichan "	do "	50 00	
Cranbrook "	do "	25 00	
Crawford Bay "	do "	25 00	
Eagle River Valley "	do "	50 00	
Fire Valley and Lake Shore "	do "	50 00	
Moyie Valley "	do "	35 00	
Bailey, J	Expenses *re* meeting of Advisory Board	31 00	
Brown, J R	do	126 65	
Hamilton, A	do	29 15	
Munro, D D	do	76 60	
Vick, J E	do	63 30	
Abriel, T	Rent of hall for lectures	10 00	
Acme Press, Ltd	Posters, envelope fillers	102 61	
Banford Bros	1 Tamworth boar shipped to Lasqueti Island Farmers' Institute	29 18	
Banford Bros	1 Shropshire ram shipped to Spallumcheen Farmers' Institute	36 15	
Bates, H S	Complete set of "Farm Book-keeping"	5 00	
Boldnan Mfg Co, Ltd	Gopher-poison	25 00	
Brett, E	Auto-hire	20 50	
Canadian Express Co	Expressage	16 15	
Canadian Farm	Subscriptions	68 00	
Cariboo Observer	Printing and advertising	7 00	
Carver, R R	Lettering cards	5 00	
Chapman, H	Printing	3 50	
Clemons, W A	Fee for transfer of Holstein bull	75	
Collicutt, F	Hereford bull shipped to Sayward Farmers' Institute	255 00	
Coutts, H	Auto-hire	150 00	
Cowell, G H S	Pure-bred Toggenburg buck kid shipped to Barriere Farmers' Institute	24 25	
Cowell, G H S	Toggenburg buck shipped to Skidegate Inlet Farmers' Institute	33 65	
Davey, T R	Balance of freight on bull	4 10	
Davie, A	Oxford Down ram shipped to Columbia Valley Farmers' Institute	34 50	
Dom Experimental Farm	Dorset ram " "	33 40	
Dominion Express Co	Expressage	95 20	
Fort Dodge Chemical Co	Gopher death-tablets	117 00	
Grimmer Bros	Jersey bull shipped to Spallumcheen Farmers' Institute	135 00	
Hall, C S	Freight charges on boar	9 75	
Hay, G C	(Paid) Rent of halls, advertising and printing	16 50	
Higginson, W H	Yorkshire boar shipped to Skeena Farmers' Institute	50 00	
Hilborn, J L	Expenses *re* lectures	33 85	
Hopkins, S H	(Paid) Straw, alfalfa, freight, etc.	17 05	
King's Printer	Advertising and printing	439 73	
Lawrence, C E	Expenses, organizing meeting, Upper North Thompson Farmers' Institute	46 25	
Maynard, A H	Tripod	4 00	
Maurer, J	Duroc Jersey boar shipped to Mount Olie Farmers' Institute	38 08	
Mitchell & Currie	Construction of manure-bin at Prince Rupert	702 45	
Morice, W F	Auto-hire	10 00	
	Carried forward	.....	50,201 16

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	50,201 16
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 114.—In Aid of Farmers' Institutes (including Educational Work).—Concluded.		
Mount Olie Farmers' Inst	Freight charges on boar	6 00	
MacKenzie, W J	Rent of hall	2 00	
McTavish Bros	Duty, brokerage, and express charges on gopher-poison	50 28	
Nat Drug & Chemical Co	Gopher-poison	54 33	
Nat Live Stock Records	Transfer fees and membership dues	12 50	
Nelson Daily News	Advertising	7 84	
Omineca Herald	do and printing	14 00	
O'Neill, W J	Rent of hall	7 50	
Plimley, T	Supplies for magic lantern	23 10	
Postmaster, Victoria	Postage stamps	345 00	
Potter, J W	Plans and specifications for manure-hopper	25 00	
Prince Rupert Journal	Advertisement *re* contracts for manure-hopper	4 00	
Shannon Bros	Ayrshire bull shipped to Malcolm Island Farmers' Institute	122 50	
Smith, A B	Freight charges on bulls	33 70	
Spencer, Ltd, D	Sheeting	2 85	
Summerland Livery Stab	Auto-hire	6 00	
Taylor, W J	Keep of "Military Man," 33 months @ $35, June 30th, 1913, to March 31st, 1916	1,155 00	
Tolmie, S F	Shropshire ram shipped to Newgate Farmers' Institute	36 65	
Thompson, J	Ayrshire bull " Bella Coola "	118 40	
Thorpe, T	Rent of hall	10 00	
Turner, J	Freight on bull, $11; feed charges, $5	16 00	
Vanderhoof, H W	Berkshire boar shipped to Salmon Valley Farmers' Institute	30 00	
Vernon News Ptg & P Co	Advertising and printing	6 70	
Wells, E A	Ayrshire bull shipped to Skidegate Farmers' Institute	168 20	
Wells, E A	do Bella Coola "	100 00	
			12,925 28
	Vote No. 115.—In Aid of Women's Institutes (including Educational Work).		
Agassiz Institute	Allowance to Secretary, Mrs. E. H. Probert	25 00	
Arrow Park "	do Mrs. W. H. Mole	25 00	
Atchelitz "	do Miss A. Robertson	25 00	
Barriere "	do Mrs. W. E. Betts	25 00	
Boundary "	do Mrs. E. Potts	25 00	
Buxquitlam "	do Mrs. I. Goodfellow	25 00	
Burton City "	do Mrs. W. H. Robson	25 00	
Central Park "	do Mrs. A. Forsyth	25 00	
Chilliwack "	do Mrs. E. P. Dusterhoeft	25 00	
Colwood "	do Mrs. M. G. Hall	25 00	
Comox "	do Mrs. M. A. Campbell	25 00	
Coquitlam "	do Miss G. E. Wakeley	25 00	
Cowichan "	do Mrs. R. Whidden	25 00	
Cranbrook "	do Mrs. J. Shaw	25 00	
Crawford Bay "	do Mrs. S. E. Kidman	25 00	
Creston District "	do Mrs. L. M. St. Jean	25 00	
Garden City "	do Mrs. M. J. Knowlton	25 00	
Gordon Head "	do Mrs. E. G. Watson	25 00	
Haney "	do Mrs. M. M. Robertson	25 00	
Harrop and Dist "	do Mrs. J. J. Wilson	25 00	
Hatzic "	do Mrs. T. Fripp	25 00	
Hazelmere "	do Mrs. M. J. Hardy	25 00	
Kalamalka "	do Mrs. J. Hicks	25 00	
Kaslo and District "	do Mrs. J. D. Keenan	25 00	
Kelowna "	do Miss M. J. Reekie	25 00	
Lake Hill "	do Mrs. M. E. Service	25 00	
Langford "	do Mrs. J. H. Waterhouse	25 00	
Langley "	do Mrs. R. Rennie	25 00	
Matsqui "	do Miss G. C. Cruickshank	25 00	
Metchosin "	do Mrs. T. F. Helgesen	25 00	
Mission City "	do Mrs. E. F. Osborne	25 00	
Mount Ida "	do Mrs. W. P. Rich	25 00	
Nakusp "	do Miss F. C. Poole	25 00	
Naramata "	do Mrs. C. C. Aikens	25 00	
Nelson "	do Mrs. M. Mackenzie	25 00	
Oyster District "	do Mrs. Skilling	25 00	
Parksville "	do Mrs. R. F. Hickey	25 00	
Peachland "	do Mrs. J. B. Robinson	25 00	
Penticton "	do Mrs. H. Main	25 00	
Robson "	do Mrs. O. M. Foxlee	25 00	
Rock Creek "	do Mrs. A. D. McLennan	25 00	
Royal Oak "	do Mrs. E. Chamberlain	25 00	
Rutland "	do Mrs. S. Gray	25 00	
Salmon Arm "	do Miss E. L. Frymann	25 00	
Salmon Riv'r Valley "	do Mrs. H. E. Thompson	25 00	
Shawnigan and Cobble Hill "	do Miss A. Ravenhill	25 00	
	Carried forward	.....	63,126 44

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	63,126 44
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 115.—In Aid of Women's Institutes (including Educational Work).—Continued.		
Similkameen Institute.	Allowance to Secretary, Mrs. L. A. Keeler	25 00	
Sooke and Otter "	do Miss A. M. Gordon	25 00	
South Saanich "	do Mrs. F. H. Stewart	25 00	
Strawberry Hill "	do Mrs. M. Huntley	25 00	
Summerland "	do Mrs. J. Tait	25 00	
Surrey "	do Mrs. H. Croft	25 00	
Tappen "	do Mrs. T. C. Sweeten	25 00	
Tynehead "	do Mrs. G. W. Atchison	25 00	
Upper Sumas "	do Mrs. A. E. Skinner	25 00	
Vernon "	do Mrs. J. H. Miller	25 00	
West Saanich "	do Mrs. J. Osborne	25 00	
West Summerland "	do Mrs. J. Mitchell	25 00	
Willow Point "	do Mrs. E. M. Cross	25 00	
Agassiz "	Grant in aid, 39 members	19 50	
Arrow Park "	do 23 "	11 50	
Atchelitz "	do 34 "	17 00	
Barriere "	do 27 "	13 50	
Boundary "	do 68 "	34 00	
Burquitlam "	do 31 "	15 50	
Burton "	do 23 "	11 50	
Central Park "	do 56 "	28 00	
Chilliwack "	do 47 "	23 50	
Colwood "	do 19 "	9 50	
Coquitlam "	do 29 "	14 50	
Cowichan "	do 121 "	55 25	
Cranbrook "	do 97 "	48 50	
Crawford Bay "	do 26 "	13 00	
Creston "	do 83 "	41 50	
Garden City "	do 35 "	17 50	
Gordon Head "	do 18 "	9 00	
Haney "	do 59 "	29 50	
Harrop and Dist "	do 32 "	16 00	
Hatzic "	do 47 "	23 50	
Hazelmere "	do 33 "	16 50	
Kalamalka "	do 33 "	16 50	
Kaslo and Dist "	do 54 "	27 00	
Kelowna "	do 92 "	46 00	
Lake Hill "	do 21 "	10 50	
Langford "	do 39 "	19 50	
Langley "	do 45 "	22 50	
Matsqui "	do 56 "	28 00	
Metchosin "	do 32 "	16 00	
Mission City "	do 48 "	24 00	
Nakusp "	do 30 "	15 00	
Naramata "	do 51 "	25 50	
Nelson "	do 103 "	50 75	
Oyster District "	do 54 "	27 00	
Parksville "	do 51 "	25 50	
Peachland "	do 60 "	30 00	
Penticton "	do 55 "	27 50	
Robson "	do 19 "	9 50	
Rock Creek "	do 40 "	20 00	
Royal Oak "	do 24 "	12 00	
Rutland "	do 81 "	40 50	
Salmon Arm "	do 71 "	35 50	
Salmon Riv Valley "	do 25 "	12 50	
Shawnigan "	do 74 "	37 00	
Similkameen "	do 59 "	29 50	
Sooke and Otter "	do 28 "	14 00	
South Saanich "	do 33 "	16 50	
Strawberry Hill "	do 40 "	20 00	
Summerland "	do 51 "	25 50	
Surrey "	do 161 "	65 25	
Tappen "	do 39 "	19 50	
Tynehead "	do 21 "	10 50	
Upper Sumas "	do 27 "	13 50	
Vernon "	do 76 "	38 00	
West Saanich "	do 43 "	21 50	
West Summerland "	do 50 "	25 00	
Willow Point "	do 32 "	16 00	
Agassiz "	do flower-shows	9 75	
Arrow Park "	do "	5 75	
Barriere "	do "	6 75	
Burquitlam "	do "	7 75	
Burton "	do "	5 75	
Central Park "	do "	14 00	
Chilliwack "	do "	11 75	
	Carried forward	.....	63,126 44

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	63,126 44
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 115.—In Aid of Women's Institutes (including Educational Work).—Continued.		
Coquitlam Institute.	Grant in aid, flower-shows	7 25	
Cranbrook "	do "	24 25	
Creston "	do "	20 75	
Garden City "	do "	8 75	
Haney "	do "	14 75	
Harrop & Dist "	do "	8 00	
Hatzic "	do "	11 75	
Hazelmere "	do "	8 25	
Kalamalka "	do "	8 25	
Kelowna "	do "	23 00	
Langford "	do "	9 75	
Lake Hill "	do "	5 25	
Langley "	do "	11 25	
Mount Ida "	do "	7 25	
Nakusp "	do "	7 50	
Naramata "	do "	12 75	
Nelson "	do "	25 75	
Oyster District "	do "	13 50	
Parksville "	do "	12 75	
Peachland "	do "	15 00	
Penticton "	do "	13 75	
Robson "	do "	4 75	
Rock Creek "	do "	10 00	
Salmon Arm "	do "	17 75	
Salmon Riv Valley "	do "	6 25	
Shawnigan "	do "	18 50	
Similkameen "	do "	14 75	
South Saanich "	do "	8 25	
Strawberry Hill "	do "	10 00	
Summerland "	do "	12 75	
Surrey "	do "	40 25	
Tappen "	do "	9 75	
Tynehead "	do "	5 25	
West Saanich "	do "	10 75	
Willow Point "	do "	8 00	
Aitkens, F E	Expenses, attending Conference	75	
Allison, D	do	7 00	
Allison, E	do	2 50	
Atchison, G W	do	2 00	
Bell, G	do	9 55	
Betts, W E	do	17 50	
Blackwood-Wileman, E	do	3 50	
Boak, S E L	do	4 05	
Brown, K	do	2 50	
Carleton, K	do	3 00	
Chandler, F S	do	4 50	
Cruickshank, G C	do	95	
Daly, E M	do	10 00	
Dusterhoeft, E P	do	2 05	
Ferguson, E P	do	1 10	
Fooks, H	do	5 25	
Forrester, B C	do	7 40	
Gibson, T	do	10 60	
Goldsmith, C B	do	10 10	
Goodfellow, I	do	1 05	
Gordon, A	do	3 00	
Gordon, M S	do	1 00	
Hardy, M J	do	1 45	
Hickey, C E	do	6 40	
Hill, E M	do	1 25	
Huntley, M M	do	35	
Johnstone, J	do	3 68	
Kidman, S E	do	2 30	
Lawrie, H	do	60	
Lowe, I E	do	3 60	
McDevitt, M	do	8 05	
McLachlan, V S	do	1 00	
Miller, J H	do	5 70	
Morrison, L	do	1 30	
Murdin, S H	do	1 80	
Parker, H	do	1 60	
Parsell, M L	do	85	
Pennock, J N	do	8 45	
Quance, R A	do	9 90	
Rae, A	do	3 00	
Reekie, M I	do	3 00	
Robertson, A	do	2 05	
	Carried forward	.....	63,126 44

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	63,126 44
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	***Vote No. 115.—In Aid of Women's Institutes (including Educational Work.*—Concluded.**		
Slough, S J	Expenses attending Conference	10 10	
Smith, J F	do	10 85	
Solby, D A O	do	1 00	
Solloway, L J	do	1 15	
Stevenson, A	do	2 30	
Thomas, T B	do	1 80	
Tweeddale, J R	do	10 05	
Verry, A	do	80	
Waterhouse, J H	do	95	
Wheelton, J	do	1 60	
Winson, E L	do	1 20	
Chalmers, R W	Services and expenses as Lecturer, 108 days @ $4; expenses, $368.41	800 41	
Davies, M S	do as Secy. to Advisory Board, 8 mos. @ $40; 16 days 5; " 90.48	490 48	
Hayes, O E	do *re* cookery demonstrations, 10 " 4; " 37.35	77 35	
Johnstone, V H	do as member of Advisory Board, 11 " 5; " 77.98	132 98	
Lipsett, R L	do " " " 14 " 5; " 43.90	113 90	
Ravenhill, A	do " " " 20 " 5; " 93.12	193 12	
Salmon Arm Institute	First prize for best programme for year 1916	15 00	
Nelson "	Second prize " "	10 00	
Upper Sumas "	First prize for best average attendance for year 1916	20 00	
Gordon Head "	Second prize " "	10 00	
Acme Press	Programmes	61 50	
Amer Home Economies Association	Subscription and extra copies	3 75	
Birks & Sons, Ltd, H	Badges	36 00	
B C Electric Railway Co	Freight	6 20	
B C Telephone Co	Telephone	25	
Croft, J	Taking minutes of Lower Mainland Conference	10 00	
Curtis Publishing Co	Subscription to "Country Gentleman"	1 75	
Dominion Express Co	Expressage	119 00	
Hibben & Co, T N	Books for prizes	79 86	
King & Son, Ltd	Books	9 83	
King's Printer	Printing reports, etc	1,097 76	
Mackenzie, H	Rent of hall for Conference, Nelson	20 00	
Orange-Judd Co	Books	2 07	
Postmaster, Chilliwack	Postage-stamps	14 00	
Postmaster, Victoria	Postage-stamps	215 00	
Remington Typewrit Co.	Typewriter	50 00	
Spencer, Ltd, D	Samples of domestic labour-saving appliances, etc	58 75	
Supt of Documents, Washington, D C	Bulletins	16 50	
Thompson, E	Services as Stenographer, Penticton Conference	8 00	
University of Illinois	Bulletins	3 00	
Vickers, H A	do	6 00	
Marlatt, W	Refreshments at Y.W.C.A. rooms	9 30	
			7,253 49
	Vote No. 116.—Inspection of Nursery Stock, Trees, Plants, etc.		
Adie, F	Services as Inspector, 37¼ days @ $5.00	186 25	
Barlee, F R S	do 26 " 5.00	130 00	
Cameron, A	do 1¾ " 5.00	8 75	
Cock, C A	do 36½ " 5.00; expenses, $4.20	185 45	
Covell, E	do 28½ " 5.00; " 5.80	147 05	
Doig, J B	do 31 " 5.00; " 14.80	169 80	
Evans, R T	do 41 " 5.00; " 2.55	207 55	
Frith, W M	do 2 " 5.00	10 00	
Gavet, D	Expenses as Inspector	56 35	
Getchell, F H	Services as Inspector, 12 mos. @ $100.00; expenses, $7.10	1,207 10	
Kerr, R D	do 4 days 5.00	20 00	
Lyne, W H	Expenses as Inspector	66 40	
McDonald, J A	Services as Inspector, sundry inspections and expenses	8 17	
MacLean, A W	do ¼ day @ $5.00	1 25	
Stead, T	do 6½ days 5.00; expenses, $2.88	34 13	
Whimster, W H	do 51½ " 5.00	256 25	
Wilkerson, G E	do 190½ " 5.00; expenses, $55.70	1,008 20	
York, T F	do 1 " 5.00	5 00	
Appleby, H	Services, assisting Inspectors 29 " 2.50	72 50	
Bain, T H	do 22 " 3.00	66 00	
Bentley, G	do 17 " 2.50	42 50	
Davidson, J	do 1 " 2.50	2 50	
Dowdall, G J	do 24 " 2.50	60 00	
Epps, H	do 43½ " 2.50	108 75	
Gavet, M	do 8½ " 2.50	21 25	
Jones, J E	do 88½ " 2.50	221 25	
	Carried forward	.....	70,379 93

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	70,379 93
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	***Vote No. 116.—Inspection of Nursery Stock, Trees, Plants, etc.*—Concluded.**		
Lane, J	Services, assisting Inspectors ..... 268½ days @ $3.00	805 50	
Olds, H F	do ..... 77½ " 3.00	232 50	
Thompson, H T	do ..... 1 " 2.50	2 50	
Thompson, J H	do ..... 1 " 2.50	2 50	
B C A Junk Co	Baling-rope	3 00	
B C Assay & Chemical Supply Co	Drugs, etc.	57 65	
B C Electric Ry Co, Ltd.	Electric light and globes	5 99	
B C Telephone Co, Ltd.	Exchange service	65 85	
Canadian Horticulturist.	Subscription	1 00	
C P Railway Co	Telegrams, $6.58; rent of Fumigation Station site to August 31st, 1917, $60	66 58	
Carpenter, W	Fumigating and cleaning cargo of prize schooner "Oregon," 10 days @ $5; car fares, $1.50	51 50	
Ceperley, Rounsfell & Co, Ltd	Insurance Premium on Inspection and Fumigation Station, Vancouver	73 50	
Clarke & Stuart Co, Ltd.	Inspection tags, time-book, business-cards, etc	10 20	
Cunningham, Mrs T	Books and microscope, the property of the late Mr. T. Cunningham	92 05	
Dominion Express Co	Expressage	60	
Dom Govt Telegraphs	Telegram	31	
Edgett Co, Ltd, H A	Flour for paste	1 30	
Graham, W J	Auto-hire	2 50	
Hafer Machine Co, Ltd.	Valves, nipples, etc	20 20	
Humphreys, J	Repairs to lock and key	50	
King's Printer	Printing	4 25	
Mainland Transfer Co	Cartage	2 75	
Martin, F N	Services as Stenographer, 2 weeks	25 00	
Merchants' Cartage Co	Cartage	4 00	
Powell & Sons, G	Roofing	4 80	
Renouf Publishing Co	Books	3 92	
Taunton, J S	Services as Watchman on schooner "Oregon" ..... 13½ days @ $2.50	33 75	
Turnbull Bros	Prepaid freight and shipping drums	5 28	
United Typewriter Co	Inspection and repairs to typewriters, etc	8 50	
Urquhart, J C	Livery-hire	4 00	
Victoria Wharf & Warehouse Co	Rent of fumigation-shed, 1916, $96; use of donkey-boiler, $10.50	106 50	
Wallace, S T	Flour for paste	45	
Weiler Bros	Soup-plates *re* fumigation of schooner "Oregon"	8 35	
Wilson, M H	Magnifying-glass	1 00	
Wood, Vallance & Leggat	Baling-rope, twine, and galvanized-wire rope, coal-oil	24 69	
Woodward Dept Store	Flour for paste	64	
			6,036 06
	Vote No. 117.—Suppression of Diseases affecting Fruits, Vegetables, Plants, etc.		
Barlowe, C R	Services as District Fruit Inspector ..... 5 months @ $ 85	425 00	
Castner, G R	do ..... 4 " 85	340 00	
Chesbro, M H	do ..... 8 " 100	800 00	
Kyte, R J	do ..... 8 " 85	680 00	
McKim, J W	do ..... 23 days 80	58 94	
Tait, J	do ..... 5 months 85	425 00	
White, E W	do ..... 8 " 100	800 00	
Pay-list	Services *re* Government spraying	449 13	
Allen, V T	Labour *re* spraying ..... 4½ days @ $2.50	11 25	
Abbott, R C	Expenses as Coast Markets Commissioner and Inspector	346 28	
Ashlee, T R	Services and expenses as Inspector ..... 65 days @ $ 3; expenses, $128.15	323 15	
Bain, T H	do " ..... 1 month 3 d. 100; " 56.10	165 00	
Barlow, Claude R	do " ..... 5 months 85; " 218.81	643 81	
Castner, G R	do " ..... 4 " 85; " 241.50	581 50	
Chesbro, M H	do " ..... 3 " 100; " 265.48	565 48	
Dungate, S	do " ..... 6½ days @ 3	19 50	
Gregson, N	Labour *re* spraying ..... 7½ " 3	22 50	
Glendenning, R	Services and expenses as Inspector ..... 1 month 16 d. @ $100; expenses, 67.90	219 50	
Gutteridge, H	do " ..... 140½ days 3; " 249.35	670 85	
Hansford, C	Labour *re* spraying ..... 4 days @ 2.50	10 00	
Higginson, J	do ..... 7½ " 2.50	18 75	
Hutcherson, E	Services and expenses as Inspector ..... 5 days @ $100 per mo.; expenses, 8.70	25 35	
Jacques, G F	do " ..... 2 days @ 2.50	5 00	
Jennings, W	do " ..... 39 " 2.50	97 50	
Johnson, J E	do " ..... 3 m. and 8 d. @ $85; expenses, 129.65	406 55	
Kyte, R J	do " ..... 2 months 85; " 55.62	225 62	
Lewis, C	do " ..... 8 days @ 2.50	20 00	
McCaskill, D	do " ..... 10 days @ $3; expenses, 12.75	42 75	
McClouni, J	do " ..... 66 days @ 2.50	165 00	
	Carried forward	.....	76,415 99

To whom paid.	For what service.	$ cts.	$ cts.
	Brought forward		76,415 99
	X.—Department of Agriculture (other than salaries).—*Continued.*		
	Vote No. 117.—Suppression of Diseases affecting Fruits, Vegetables, Plants, etc.—Concluded.		
McKim, W J	Services and expenses as Inspector.. 2 mos. and 18 d. @ $80.00; expenses, $72.20	310 66	
Neil, W	do " .. 2 days 2.50; " 3	8 00	
Newman, Edward	do " ..... 40½ days @ 3	121 50	
Palmer, L L	do " ..... 1 month $125.00; expenses, 16.32	141 32	
Postill, G	Labour *re* spraying ..... 4 days @ 2.50	10 00	
Tait, J	Services and expenses as Inspector.... 3 mos. and 29 d. @ $85; expenses, 201.65	537 44	
Thompson, H T	do " 74 days @ $100 per month; 129 days @ $3 per day ..... expenses, $431	1,063 80	
Wheatcroft, E A	Labour *re* spraying ..... 12½ days @ 3	37 50	
White, E W	Services and expenses as Inspector ..... 4 months @ $100; expenses, 382.70	782 70	
Bagley & Sons, A G	Badges	3 50	
Bankhead Orchard Co	Spray-machine and engineers	30 70	
Bean Spray Pump Co	Pump-base for pump	16 25	
Blair, H G	Shoeing horse	3 00	
B C Telephone Co, Ltd	Exchange service	114 10	
Calwell, H	Hauling extra spray	50	
Cameron, J N	Repairs to spray-machines	13 25	
C P Railway Co	Telegrams, $41.96; freight, $97.03	138 99	
Chesbro, M H	Burlap sacks for banding trees	12 55	
Chief of Police, Vernon	Renewal motor-cycle licences	15 00	
Clarke & Stuart Co, Ltd	Rubber stamps and printing index-cards	19 20	
Creston Drug & Book Co	Stationery	2 50	
Dominion Express Co	Express on pump parts	6 50	
Douglas, J K	Lettering signs	18 00	
Edgar, J M	Hand flash-light	4 50	
Ellis & Co, W J	Storage and repairs for motor-cycle	10 30	
Fraser, J A	Final payment for buggy, harness, sleigh-runners, etc	10 00	
French, P E	Sacks for banding trees	1 00	
Galbraith & Speer	Duplex sprayer, tank-filler, etc	427 25	
G N W Telegraph Co	Telegrams	47 35	
Grasselli Chemical Co	Arsenate-of-lead paste	271 25	
H M Customs, Canada	Duty	84 82	
Hopps Sign Co	Signs and charts	9 50	
Imperial Oil Co, Ltd	Gasolene	53 30	
Jennings, W	Inspecting bands and apples	55 00	
James & Trenwith	Repairs to motor-cycle	8 00	
Josselyn, A W	Rent of shed	30 00	
King's Printer	Printing, etc	38 07	
Kelowna Carriage Works	Repairs to sprayer	3 00	
Kelowna Saw Mills Co	Lumber	4 80	
Land & Agricultural Co of Canada	Sacks for banding trees	8 00	
Lane, E S	Man and team, hauling sprayer	2 50	
Lamont, R	Rent of office	21 00	
Lawson, Thomas, Ltd	Canvas	4 80	
Leckie, D	Supplies, etc., for spray-machines	66 83	
Love, E S	Team and man	1 50	
Mallett, M	Engineer	5 25	
McDonnell, J W J	Witness fees	2 50	
Megaw Motor Company	Fixing motor-cycle, etc	198 96	
Megaw, W R	Check-valve for sprayer	3 25	
Merchants' Cartage Co	Cartage, etc	8 70	
Motor-cycle Equipmt Co	Repair parts for motor-cycle	9 67	
Neil & Cryderman	Teaming	26 00	
Neil & Cryderman	Livery-hire	29 50	
Neil & Cryderman	do	25 00	
Nelson Hardware Co	Material	2 23	
Nelson Daily News	Circulars	9 50	
Northern Transfer Co	Teaming	3 00	
Okanagan Hotel	Room and board	17 00	
Okanagan Telephone Co	Telephone rental	4 25	
Penticton Herald	Display ad	5 00	
Pendray & Sons, Ltd, W J	Whale-oil soap	67 26	
Plimley, T	Gasolene, etc	51 12	
Powell & Sons, Geo	Supplies	5 10	
Royal Oak Grocery	Gasolene	2 80	
Simpson, S M	Crating motor-cycle	2 00	
Summerland Tel Co	Telephone rental	5 00	
Vernon Hardware Co	Supplies	26 00	
		13,642 23	
	Cr. Refund on spraying materials supplied to orchardists by Horticultural Branch	173 37	13,468 86
	Carried forward		89,884 85

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	89,884 85
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote. No. 118.—Suppression of Noxious Weeds.		
Baird, R H	Salary as Noxious Weeds Inspector.....105 days @ $3; expenses, $389	704 00	
Creed, W E	do ..... 92 " 3; " 292.20	568 20	
Lye, F	do ..... 77 " 3; " 232.25	463 25	
Morris, A P	do ..... 103 " 3; " 279.60	588 60	
Shannon, A B	do .....105 " 3; " 234.05	549 05	
Stanhope, W S	do .....105 " 3; " 359.85	674 85	
Whiting, H	do ..... 79 " 3; " 330.20	567 20	
Wren, H	do .....105 " 3; " 382.05	697 05	
Aylwin, C S	Cutting noxious weeds ..... 7½ days @ 2.50	18 75	
Binns, J	do ..... 6 " 2.50	15 00	
Bustin, R	do ..... 9 " 2.50	22 50	
Charlier, G	do ..... 20 " 2.50	50 00	
Fisher, Wm	do ..... 2 " 3	6 00	
Godfrey, G S	do ..... 1 " 3	3 00	
Hill, L H	do ..... 5½ " 2.50	13 75	
Howlett, J	do ..... 3½ " 2.50	8 75	
Lawson, J M	do ..... 1 " 3	3 00	
Mitchell, J	do ..... 11 " 2.50	27 50	
Roberts, R	do ..... 10½ " 2.50	26 25	
Winch, W	do ..... 12 " 2.50	30 00	
Albert, E	do	3 00	
Avis, G	do ..... 4 days @ $3	12 00	
Avis, J	do ..... 4 " 3	12 00	
Barber, C G	Expenses	6 00	
Baxter, A C	Cutting noxious weeds	75 00	
Braithwaite, D	do ..... 2½ days @ $3	7 50	
Brown, G R	do ..... 15 hours .33	4 95	
Brown, Thos	do ..... 2 days 2.50	5 00	
Cameron, A L	do ..... 18 " 3	54 00	
Church, H E	do	5 00	
Clark, J	do	5 00	
Cockerill, Wm	do ..... 13½ hours @ $ .30	4 05	
Dalmer, R	do	3 00	
Daly, F	do ..... 14 days $3	42 00	
Desaulmiers, V A, Jr	do ..... 6 " 2.50	15 00	
Fleetwood, C H	do .....3 men ½ day burning same 5½ " 3	21 00	
Granstrom, E	do ..... 1 " 3	3 00	
Harris, D E	do	115 00	
Lacon, H R	do	5 00	
Leach, G L	do ..... 4 days @ $3	12 00	
Lee, R	do ..... 18 hours .25	4 50	
Lermo, O	do ..... 3½ days 3	10 50	
Michaud, C	do ..... 85 hours .30	26 40	
Mitchell, G	do	2 00	
Moore, J J	do	6 00	
McLennan, —	do ..... 1 day @ $3	3 00	
McPhee, J	do ..... 4 days 3	12 00	
Nelson, H	do ..... 5½ " 3	16 50	
Ogilvie, R J	do ..... ½ " 6	3 00	
Pfeiffer, A	do	15 51	
Rumsey, T	do ..... 6½ days @ $3	19 50	
Sanderson, J B	do ..... 15 " 3	45 00	
Scaio, A	do ..... 6 " 3	18 00	
Scott, M	do ..... 2 " 2.50	5 00	
Smith, J F	do ..... 6 " 1.50	9 00	
Soles, R H	do ..... 3 " 3	9 00	
Spencer, S	do ..... 3 " 3	9 00	
Stribling, A H	do	84 00	
Stuart, J	do ..... 4 days @ $3	12 00	
Wesche, H	do ..... 6 " 3	18 00	
Whipple, C M	do	3 00	
Wilkinson, J	do	3 00	
Blue, G S	Expenses *re* inspections	2 95	
Brickland, H E	do "	11 50	
Burns, M H	Livery-hire "	10 00	
Carr, P	Expenses " and delivering notices	2 00	
Condon, M J	do	12 00	
Harris, H V	Livery-hire	1 50	
Jenkins & Co, M	do	11 00	
Lines, W H	Expenses *re* inspections	2 80	
Mack, F J	Livery-hire	16 00	
Mason, T G	Expenses *re* inspections	11 50	
Palace Livery	Livery-hire	12 00	
Taylor, J R	Expenses *re* inspections and delivering notices	7 50	
Tupper, J A	Livery-hire *re* inspections	24 00	
Urquhart, J C	do and delivering notices	11 50	
	Carried forward	.....	89,884 85

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		89,884 85
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Continued.*		
	Vote No. 118.—Suppression of Noxious Weeds.—Concluded.		
Cowan Supply Co	Scythe and stone	2 35	
King's Printer	Printing posters, etc.	117 85	
Thomas Bros	Scythe, etc.	2 75	
Wagstaff & Vestrup	Gasolene and lubricating-oil	12 85	
			6,052 16
	Vote No. 119.—Compensation to Owners of Cattle slaughtered for Tuberculosis.		
Anderson, J	Compensation for cattle slaughtered for tuberculosis, 2 head	100 00	
Anderson, G	do " 1 "	50 00	
Asbury & Huff	do " 14 "	348 00	
Baran, J	do " 1 "	10 00	
Barker & Hersey	do " 1 "	50 00	
Barr, F G	do " 1 "	30 00	
Bates, E A	do " 7 "	65 50	
Berry, J W	do " 2 "	90 00	
Blackburn, Edward	do " 1 "	37 50	
Bryant, A L	do " 12 "	625 00	
Bryce, James	do " 1 "	50 00	
Burr, J J	do " 1 "	40 00	
Casanave, Mrs E	do " 1 "	50 00	
Cowan, Geo H	do " 1 "	7 88	
Craigmyle, Mrs E	do " 1 "	50 00	
Crowley, J	do " 4 "	69 54	
Day Bros	do " 1 "	50 00	
Devitt, Geo	do " 1 "	40 00	
Dobbs, J	do " 1 "	30 00	
Donley, George	do " 1 "	40 00	
Donovan, Mrs Jessie	do " 1 "	50 00	
Evans, F T	do " 1 "	50 00	
Farr, J J	do " 1 "	37 50	
Filmer, J	do " 1 "	15 00	
Finkayson, M H	do " 1 "	30 00	
Foster, Hugh	do " 10 "	167 17	
Garden & McNeil	do " 1 "	12 50	
Gardom, B	do " 3 "	275 00	
Grau, E	do " 3 "	120 00	
Green, Thomas	do " 3 "	97 50	
Grimmer Bros	do " 1 "	100 00	
Harkim Singh	do " 1 "	28 00	
Hartin, J	do " 1 "	20 00	
Heaslip, Mrs F	do " 1 "	40 00	
Heaton, Wm	do " 2 "	130 00	
Hodgson, Wm	do " 1 "	77 50	
Hodgeson, Wm	do " 14 "	467 12	
Hope, C E	do " 2 "	37 67	
Jasper, A	do " 1 "	50 00	
Johnston, A	do " 1 "	50 00	
Lloyd, O	do " 1 "	50 00	
Lock & Son, J	do " 1 "	30 00	
Longland, H D	do " 3 "	125 00	
Maber, C H	do " 2 "	87 50	
Marcotte, E H	do " 2 "	80 00	
Marshall, J	do " 7 "	350 00	
Matson, J S H	do " 4 "	400 00	
Mee, Mrs M	do " 1 "	25 00	
Mitchell, Alexander	do " 1 "	15 00	
Mitchell, W	do " 1 "	8 65	
Molyneux, W E	do " 1 "	5 00	
Morris, Cecil	do " 1 "	25 00	
Murton, Mrs R E	do " 2 "	45 00	
Mutter, G W	do " 1 "	75 00	
McKay, D E	do " 1 "	50 00	
McKay, J G	do " 1 "	20 00	
McKee, David	do " 1 "	18 50	
McIntyre, John	do " 1 "	12 50	
McKenzie, Wm	do " 1 "	50 00	
McKillican, H A	do " 2 "	40 00	
McPherson & Fullerton	do " 2 "	20 00	
McRae, Mrs W G	do " 1 "	50 00	
Nesbitt, Geo	do " 2 "	45 80	
Nesbitt, W H	do " 1 "	40 00	
Nisbet, George	do " 1 "	40 00	
Nichols, Mrs J W H	do " 1 "	25 00	
Ormand, J	do " 1 "	50 00	
Owens, O W	do " 1 "	25 00	
Park, W J	do " 1 "	62 50	
	Carried forward		95,937 01

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	95,937 01
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES). *Continued.*		
	Vote No. 119.—Compensation to Owners of Cattle slaughtered for Tuberculosis.—Concluded.		
Paton, W	Compensation for cattle slaughtered for tuberculosis, 1 head	50 00	
Patterson, Alex	do " 1 "	50 00	
Payze, T	do " 3 "	25 00	
Raper, E & T	do " 6 "	287 50	
Rogers, Geo	do " 3 "	105 00	
Roux Bros	do " 11 "	630 00	
Rutherford, Dr J G	do " 4 "	163 00	
Sayward, J A	do " 1 "	100 00	
Shannon Bros	do " 4 "	95 56	
Shorthouse, Thomas	do " 1 "	50 00	
Sims Bros	do " 5 "	220 00	
Stickley, L	do " 1 "	25 00	
St Mary's Mission	do " 1 "	45 00	
Sunbeam Dairy Co	do " 1 "	50 00	
Taylor, E	do " 1 "	50 00	
Temple, Ernest	do " 12 "	410 00	
Thomson, A	do " 3 "	70 00	
Thompson, Jos	do " 9 "	467 50	
Thompson, J S	do " 5 "	197 50	
Thomson, L	do " 1 "	50 00	
Tolmie, S F	do " 6 "	246 52	
Townsend, F W	do " 3 "	130 00	
Townsend, W N	do " 1 "	100 00	
Trites, Humphrey	do " 2 "	80 00	
Vickery, H	do " 6 "	260 00	
Walker, Lady E	do " 1 "	50 00	
Weismiller, J	do " 1 "	25 00	
Whittier, Mrs	do " 4 "	155 00	
Wilson, J D	do " 3 "	60 00	
Woodsworth, Noble	do " 1 "	15 00	
Woodward, John	do " 1 "	20 00	
Wotten, W T	do " 1 "	30 00	
Young, W R	do " 1 "	10 00	
		9,881 41	
	Cr. Refund of beef value of slaughtered cattle	178 48	
			9,702
	Vote No. 120.—Travelling Expenses of Officers on Duty.		
Alton, W W	Veterinary Inspector	755 35	
Bonavia, W J	Secretary to Department	44 47	
Cahilty, R	Provincial Brand Inspector	61 15	
Carr, E B	Expenses *re* agriculture and survey-work	159 95	
Castner, G R	do orchard survey-work	115 47	
Connor, Thos	do orchard and truck-crop survey	64 05	
Eastham, J W	Plant Pathologist and Entomologist	438 08	
English, H O	Soil and Crop Instructor	812 60	
French, P E	Assistant Horticulturist	710 40	
Glendenning, R	Expenses *re* fruit, etc.	15 20	
Graham, W J	do imported fruit, etc.	3 70	
Hopkins, S H	Assistant Live Stock Commissioner	595 23	
Harris, L	Foul-brood Inspector	231 39	
Heath, J	Expenses *re* orchard survey-work	125 55	
Hoy, B	Assistant Horticulturist	219 63	
Ilsley, B R	Veterinary Inspector	1,202 35	
Johnson, G A	Expenses *re* Inspection of Brands, Vents, and Hides	21 25	
Knight, A	Chief Veterinary Inspector	929 47	
Lyne, W H	Assistant Inspector of Fruit Pests	203 15	
Marsh, C	Expenses *re* survey-work	182 50	
Middleton, M S	Assistant Horticulturist	801 45	
McDonald, W T	Live Stock Commissioner	817 60	
McKim, W J	Expenses *re* orchard survey-work	166 00	
McLennan, J R	Editor, Publications Branch	51 40	
McTaggart, W E	Prairie Fruit Markets Commissioner	1,196 05	
Neale, A R	Acting Assistant Horticulturist	121 90	
Norris, L	Expenses *re* collection of seed-grain	1 88	
Pilmer, G	Clerk	20 45	
Scott, W E	Deputy Minister of Agriculture	323 75	
Sheppard, W J	Foul-brood Inspector	245 86	
Shotbolt, A H	General Assistant	35 35	
Terry, J R	Poultry Instructor	689 80	
Thornber, H	Assistant Horticulturist	696 93	
Tweddle, H B	do Statistician	707 27	
Todd, F D	Foul-brood Inspector	586 80	
Tomlinson, A H	Assistant Horticulturist	54 10	
Upton, H E	Poultry Instructor	1,110 63	
	Carried forward	.....	105,639 94

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	105,639 94
	X.—DEPARTMENT OF AGRICULTURE (OTHER THAN SALARIES).—*Concluded.*		
	Vote No. 120.—Travelling Expenses of Officers on Duty.—Concluded.		
Walker, H E	District Agriculturist	920 00	
White, E W	District Fruit Pest Inspector	149 90	
Winslow, R M	Provincial Horticulturist	413 60	
White, S A K	do Veterinary Inspector	933 35	
Wiancko, T A F	do Dairy Instructor	1,081 40	
Beales, T W	Livery-hire for sundry inspections	15 00	
Botterill, M	Auto-hire "	15 00	
Bourne, J	Rail fare "	3 00	
Brewer, J	Livery-hire "	24 00	
Burns, M H	do "	25 00	
Chetham, L D	Rail fare "	50 00	
Chowen, R E	Auto-hire "	32 00	
Cools, Mrs V A	Livery-hire "	8 00	
Jenkins Co, Ltd, The	do "	119 50	
Neil & Cyderman	do "	20 50	
Packham, G	do "	90 00	
Parmley, R	do "	1 00	
Pollard, C	Auto-hire "	10 00	
Spiller, W	Expenses *re* inspection of cattle	3 00	
Victoria Transfer Co, The	Livery-hire	17 50	
York, T F		10 00	
			18,459 31
			124,099 25
	XI.—REVENUE SERVICES.		
	Vote No. 121.—Commission, Courts of Appeal, Travelling Expenses, and Miscellaneous.		
	COMMISSION.		
Nicholson, H	Commission on collections, Rock Creek @ 25 per cent.	95 47	
Beatton, F W	do " Fort St. John 20 "	4 40	
Dawley, W T	do " Clayoquot 20 "	173 50	
Everson, A	do " McDame Creek 20 "	5 90	
Fox, W	do " Finlay Junction 20 "	16 55	
Murray, A C	do " Fort St. James 20 "	6 10	
McNeish, T	do " Slocan 20 "	147 40	
Perry, T A	do " Finlay Forks 20 "	5 55	
Pelly, J	do " & marriage licences, Chilliwack 20 "	86 60	
Smith, C H	do " Telegraph Creek 20 "	14 80	
Sherberg, O A	do " Quatsino 20 "	202 88	
Steele, W B	do " Manson Creek 20 "	19 35	
Taylor, H	do " McBride 20 "	34 90	
Thorp, T J	do " Telkwa 20 "	233 47	
Agassiz, L A	do " Agassiz 15 "	2 62	
Deane, J R C	do " Port Simpson 15 "	4 50	
French, F H	do " Hedley 15 "	83 73	
Ketchum, F F	do " Beamdell 15 "	42 64	
Northey, R W	do " Olalla 15 "	50 00	
Strutt, W A	do " Beaton 15 "	134 18	
Scott, W	do " Nakusp 15 "	46 64	
Thompson, J	do " Sheep Creek 15 "	117 90	
Adam, G H	do " Kamloops 10 "	50	
Ainsworth, E	do " Corbin 10 "	4 50	
Anderson, G L	do " and marriage licences, Kitimat 10 "	12 15	
Angus, R M	do " Brentwood Bay 10 "	5 25	
Barber, C G	do " Mission City 10 "	51 50	
Barber, G	do marriage licences, Revelstoke 10 "	10 00	
Bell, J J	do collections, Field 10 "	10 00	
Bethurem, J L	do " Usk 10 "	60 06	
Black, J T	do " Nelson 10 "	19 00	
Blue, G S	do " Hope 10 "	155 09	
Boardman, J	do " Coal Creek 10 "	4 00	
Bowen, R W	do " Keremeos 10 "	20 00	
Brickland, H E	do " Chase 10 "	1 00	
Broughton, F	do " Bella Coola 10 "	37 32	
Carney, T	do " Alice Arm 10 "	210 40	
Carr, P	do " Sicamous 10 "	2 50	
Catherwood, J A	do marriage licences, Mission City 10 "	10 00	
Clarkson, F	do collections, Vananda 10 "	1 50	
Cline, S	do " Hazelton 10 "	3 00	
Coleman, G S	do " Ymir 10 "	76 17	
Collins, J F	do " & marriage licences, North Van. 10 "	12 40	
Condon, M J	do " Chase 10 "	2 00	
Cordy, C H	do marriage licences, Summerland 10 "	6 00	
	Carried forward	.....	.....

TO WHOM PAID.	FOR WHAT SERVICE.			$ cts.	$ cts.
	Brought forward				
	XI.—REVENUE SERVICES.—*Continued.*				
	Vote No. 121.—Commission, Courts of Appeal, Travelling Expenses, and Miscellaneous.—Continued.				
	COMMISSION.—*Continued.*				
Curley, J A.	Commission on	collections,	Mission City @	10 per cent.	12 75
Deasy, T.	do	marriage licences,	Masset	10 "	1 00
Docksteader, W H.	do	collections,	Midway	10 "	18 00
Doolittle, C E.	do	"	Terrace	10 "	48 98
Dryden, A.	do	"	Waldo	10 "	19 50
Duncan, G J.	do	"	Pouce Coupe	10 "	6 90
Duncan, T H	do	"	Wardner	10 "	5 50
Emmott, F N.	do	"	Masset	10 "	12 50
Enright, E.	do	"	Spences Bridge	10 "	2 00
Evans, C F.	do	"	South Fort George	10 "	50 00
Fairbairn, A.	do	"	Telkwa	10 "	21 25
Farr, A.	do	"	Nicola	10 "	10 50
Farrell, J P.	do	"	Moyie	10 "	5 85
Forrester, W C.	do	"	Creston	10 "	56 51
Fowler, W R.	do	"	Michel	10 "	2 00
Fraser, J A.	do	"	Vernon	10 "	58 50
Gammon, E.	do	"	Prince Rupert	10 "	76 00
Geernaert, O W.	do	"	Sidney	10 "	3 00
Gibbs, E C.	do	marriage licences,	Creston	10 "	4 50
Gibson, W H.	do	"	Bella Coola	10 "	1 00
Gibson, J T S.	do	collections,	Golden	10 "	7 00
Gorman, M.	do	"	Elko	10 "	18 75
Greenwood, W.	do	"	Ashcroft	10 "	34 50
Grinder, G.	do	"	Quesnel Forks	10 "	17 07
Gunn, G M.	do	"	New Denver	10 "	23 50
Hannay, J.	do	"	Courtenay	10 "	7 50
Hansen, K.	do	marriage licences,	Holberg	10 "	3 00
Harris, H V.	do	collections,	Quesnel	10 "	38 25
Harrison, C.	do	"	Masset	10 "	10 65
Hazelton, D A.	do	"	Golden	10 "	16 75
Helmsing, H F.	do	"	& marriage licences, Alert Bay	10 "	25 25
Henley, W R.	do	"	Endako	10 "	10 50
Hood, A S.	do	marriage licences,	Rivers Inlet	10 "	6 00
Hughes, H.	do	collections,	Natal	10 "	30 00
Hyde, E H T.	do	"	Anyox	10 "	47 81
Jack, P C.	do	"	Stewart	10 "	176 33
Johnson, J	do	marriage licences,	Salmon Arm	10 "	5 00
Johnson, G A.	do	collections,	Vernon	10 "	2 50
Johnston, J F.	do	"	Trail	10 "	9 00
Jones, D.	do	"	Vananda	10 "	46 55
Jupp, P W.	do	"	Savona	10 "	7 00
Kelly, J.	do	"	Smithers	10 "	25 00
Kennington, G A.	do	"	Salmo	10 "	70 51
Kerr, G A.	do	"	Burns Lake	10 "	4 80
Kerr, C.	do	"	Corbin	10 "	2 00
Knowles, J B.	do	marriage licences,	Kelowna	10 "	14 50
Kier, W.	do	collections,	Duncan	10 "	14 00
King, R.	do	"	Bull River	10 "	7 50
King, H W.	do	"	Nelson	10 "	1 00
Laird, W.	do	"	Arrowhead	10 "	3 50
Lavery, H S.	do	"	Hazelton	10 "	23 00
Lines, W H.	do	"	Abbotsford	10 "	13 50
Macdonald, J.	do	"	Cumberland	10 "	55 00
Mansell, H H.	do	"	Princeton	10 "	43 75
Mansell, T A.	do	"	Hudson Hope	10 "	20 32
Mainwaring, H D.	do	"	Victoria	10 "	7 00
Marshall, S.	do	"	Quathiaski Cove	10 "	32 75
Mason, T.	do	"	Monte Creek	10 "	50
Matthews, R.	do	"	Britannia Beach	10 "	18 00
Mead, J.	do	"	New Hazelton	10 "	21 50
Minty, A C.	do	"	Hazelton	10 "	50
Morgan, J S.	do	marriage licences,	Merritt	10 "	3 00
Morgan, W.	do	collections,	Lockeport	10 "	20 70
Mosher, F L.	do	"	Houston	10 "	62 09
Mustart, A D L.	do	"	Nanaimo	10 "	43 00
McCubbin, T H.	do	"	Pacific	10 "	74 35
McDonald, C J.	do	"	Mayne	10 "	198 31
McDonald, D M.	do	"	Sidney	10 "	27 75
McIver, M.	do	"	Athalmer	10 "	28 00
McKinnon, F A.	do	"	Anyox	10 "	54 90
McLaren, H.	do	"	Salmo	10 "	31 00
McMartin, H P.	do	marriage licences,	New Westminster	10 "	11 50
McNeish, T.	do	"	Slocan	10 "	1 00
Nichols, C.	do	collections,	Greenwood	10 "	7 00
Noel, W.	do	"	Smithers	10 "	79 00
Norgrove, J	do	"	Hosmer	10 "	4 50
	Carried forward				

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		

XI.—REVENUE SERVICES.—*Continued.*

Vote No. 121.—Commission, Courts of Appeal, Travelling Expenses, and Miscellaneous. —Continued.

COMMISSION.—*Concluded.*

O'Connor, C	Commission on collections,	Moyie	@ 10 per cent.	10 75	
O'Hara, C R	do "	Burns Lake	10 "	8 37	
Page, J	do "	Galiano	10 "	145 20	
Pallant, A C	do "	Alberni	10 "	2 00	
Parham, W J	do "	Sandon	10 "	37 91	
Parsons, T W S	do "	Fort St. John	10 "	11 00	
Perry, C C	do marriage licences,	Prince Rupert	10 "	1 50	
Pelly, J	do "	Chilliwack	10 "	15 00	
Prescott, W	do collections,	Jedway	10 "	40 29	
Ransom, G F	do "	Merritt	10 "	19 50	
Richards, F G	do marriage licences,	Victoria	10 "	229 00	
Robson, W M	do collections,	Mayne Island	10 "	25	
Russell, J	do "	Ladysmith	10 "	8 00	
Scarlett, J P	do "	Atlin	10 "	16 50	
Scott, W	do "	Nakusp	10 "	22 00	
Shipman, G	do "	Kimberley	10 "	19 00	
Simpson, W	do "	Howser	10 "	17 20	
Skinner, P R	do "	Copper City	10 "	22 75	
Smith, J M	do "	Nakusp	10 "	50	
Somerville, T	do "	Lytton	10 "	38 35	
Spencer, J C	do marriage licences,	Port Simpson	10 "	2 50	
Sproule, G H	do collections,	Hedley	10 "	14 00	
Stanfield, G	do "	Grand Forks	10 "	7 50	
Stephenson, A T	do "	New Westminster	10 "	3 50	
Stewart, W E	do "	Phoenix	10 "	3 50	
Strong, W	do "	Boundary	10 "	22 70	
Tait, A	do "	Victoria	10 "	7 00	
Taylor, A	do marriage licences,	Ladner	10 "	2 00	
Taylor, H	do "	and collections, McBride	10 "	12 55	
Twidle, H	do collections,	Granite Bay	10 "	15 17	
Vachon, E A	do "	Silverton	10 "	17 50	
Walsh, J	do "	Fort Steele	10 "	46 65	
Walter, E	do "	Ganges	10 "	489 65	
Warren, F W	do marriage licences,	Trail	10 "	14 50	
Williams, J A	do collections,	Kaslo	10 "	20 50	
Wood, H N	do "	Vanderhoof	10 "	26 50	
Wood, H S	do "	Vancouver	10 "	2 70	
Wyatt, H R	do "	North Bend	10 "	8 00	
Yates, A	do "	Bull River	10 "	4 25	
Williams, A B	Pay-lists, Provincial Game Wardens, commission on resident firearms licences			1,150 00	
Allardyce, T	Services, collecting arrears 12 months @ $80; commission, $1,723.64			2,683 64	
Lewis, E A	do 12 " 80			960 00	
Armstrong, F J	Commission on marriage licences and arrears of taxes, New Westminster			326 35	
		Total, $10,733.03			

COURTS OF APPEAL.

Anderson, J	Judge, Court of Appeal,	Slocan District	8 days @ $10; expenses, $ 6.90	86 90	
Burton, S C	do	Princeton, Nicola, and Kamloops	10 " 10; " 54.50	154 50	
Cousier, H N	do	Revelstoke	6 " 10; " 14.05	74 05	
Carss, A	do	Prince Rupert	2½ " 20;	50 00	
Downie, D	do	Vancouver	10 " 20;	200 00	
Eggert, J	do	Atlin	1 " 10;	10 00	
Futcher, T S	do	Vancouver Island	31 " 10; expenses, $145.35	455 35	
Hansford, W F	do	New Westminster	3 " 20;	60 00	
Harper, A M	do	Vancouver	1 " 20;	20 00	
Hamilton, C R	do	Nelson	2 " 25; expenses, $ 5	55 00	
Macdonald, A B	do	Fort Steele	4 " 20; " 15	95 00	
Nicholson, H	do	Fairview	10 " 10; " 53.90	153 90	
Page, J	do	Mayne Island	1 " 5;	5 00	
Simpson, W S	do	Telegraph Creek	1 " 10;	10 00	
Webb, F	do	Ashcroft	1 " 10;	10 00	
			Total, $1,439.70		

TRAVELLING EXPENSES.

Bacon, F H	Travelling expenses *re* collection of revenue, assessments, & appeals,		Golden	17 50	
Bradley, W W	do	"	"	80 50	
Brown, N R	do	"	Revelstoke	341 67	
Brooke, H	do	"	Vancouver	285 85	
Burnett, F	do	"	"	40 60	
Christie, H P	do	"	Ashcroft	89 00	
Clint, J	do	"	Vancouver	20 50	
Creighton, J W	do	"	New West'ster	213 10	
Clark, H S	do	"	Cranbrook	25 15	
	Carried forward				

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	.....
	XI.—REVENUE SERVICES.—*Continued.*		
	Vote No. 121.—Commission, Courts of Appeal, Travelling Expenses, and Miscellaneous.—Continued.		
	TRAVELLING EXPENSES.—*Concluded.*		
Dashwood-Jones, W A...	Travelling expenses *re* collection of revenue, assessments, & appeals, New West'ster	14 00	
Desrosiers, J B.....	do " " Rossland	21 65	
Dunlop, J	do " " Lillooet.....	325 65	
Homer, C W	do " " Prince Rupert	349 00	
Hunter, H.....	do " " Princeton.....	197 00	
Jarvis, S S.....	do " " Nelson	74 10	
Leeson, E E	do " " Victoria.....	107 50	
Maitland-Dougall, J.....	do " " Duncan.....	28 95	
Milburn, G	do " " Quesnel	32 00	
McDonald, C J.....	do " " Mayne Island.....	12 50	
Page, J.....	do " " Galiano	10 00	
McQueen, A	do " " Kaslo	87 15	
Rankin, J	do " " Vancouver.....	8 90	
Sampson, A..	do " " 150-Mile House....	77 50	
Scott, W	do " " Nakusp.....	3 80	
Smith, S McB.....	do " " Alberni & Nanaimo	25 80	
Stevenson, J.....	do " " Quesnel	120 70	
Townsend, H R.....	do " " Rossland.....	62 65	
Travis, J	do " " Vancouver.....	9 00	
Tweedie, R D.....	do " " Fairview.....	365 15	
Wallace, W H.....	do " " Vancouver	3 80	
Wilmot, H F	do " " Vernon.....	156 35	
Wallinger, N A	do " " Cranbrook.....	104 30	
Welch, H.....	do " " Hazelton.....	43 35	
	Total, $3,354.67		
	MISCELLANEOUS.		
Acad of Political Science	Subscription	5 00	
Adams, G E	Services, making list of boats from Customs-house registry.....	15 00	
Ashwell, A S.....	Services, preparing list of vessels, boats, etc., and ascertaining values, Victoria District.....	35 00	
Baird, J.....	(Paid) Expressage.....	1 00	
Brooke, H.....	Telephone calls	20	
B C Telephone Co, Ltd..	do	3 00	
Brown, N R	Exchange on cheques	17 20	
Burroughes Adding Machine Co.....	Attention to machines.....	18 00	
C P R Telegraph Co.....	Telegrams.....	63	
Catherwood, J A.....	Expert assistance *re* assessments.....	5 00	
City of Prince Rupert...	(Paid) Telephone service.....	26 00	
Clint, J..... ..	Cartage on stationery, repairs to typewriter, etc.....	3 80	
Creighton, J W.....	Exchange on cheques.....	1 05	
Dept of Interior, Ottawa	4 township maps.....	45	
Dominion Express Co...	Expressage.....	8 90	
Dom Govt Telegraphs...	Telegrams.....	6 05	
Dominion Lands Agent, Revelstoke	Official plans.....	6 85	
Dun & Co, R G	Subscription.....	100 00	
Field, C M.	Services, assisting Assessor, Revelstoke.....	10 00	
Fraser & Co, Ltd, J A...	Gasolene.....	7 00	
G N W Telegraph Co....	Telegram.....	67	
Hunt, W W.....	Blue-print, East Coast of Vancouver Island	3 00	
Hurst, R J	Service, assessing autos.....	32 00	
Jobe, L E.	Repairing and cleaning typewriters.....	11 00	
King's Printer, Ottawa..	2 copies of Dominion Civil Service Blue Book, 1916	90	
McCuaig, G.....	Service *re* distress warrant	5 00	
McDonald, C J.....	Postage-stamps, Mayne Island.....	10 00	
MacKay & O'Brien.....	Legal services *re* collection of taxes	260 00	
Page, J.....	Postage stamps $15 ; additional services, assisting Assessor, $10.....	25 00	
Postmaster, Hazelton ...	do	45 00	
do Kamloops ..	do	20 00	
do Nanaimo ...	do	50 00	
do Nelson	do	60 00	
do N Westmstr	do	15 00	
do Pr Rupert..	do	30 00	
do Vancouver..	do	50 30	
Remington Typewrit Co	Adjusting typewriters	9 00	
Robinson, K J	Expert services, assisting Assessor.....	20 00	
Roedde, G A	Binding school rolls.....	6 50	
Rolfe, W N.....	Expressage.....	1 05	
Stuart, A K.	Checking and revising owners of subdivisions at Hope.....	10 00	
Travis, J.....	Telegrams, rubber stamps, etc.....	4 84	
Wallace, J H.....	Rubber rests for typewriter	1 00	
Walter, E.	Commission paid on money-orders.....	1 90	
Wood, H S	Services *re* tug "Buster B.".....	6 55	
	Carried forward.....	.....	.....

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts
	Brought forward			
	XI.—REVENUE SERVICES.—*Concluded.*			
	Vote No. 121.—Commission, Courts of Appeal, Travelling Expenses, and Miscellaneous.—Concluded.			
	MISCELLANEOUS.—*Concluded.*			
Guiliany, A D	Services assisting Assessor, Vancouver	3 months @ $100	300 00	
Weeks, G W	do " "	4 " 90	360 00	
Hutchinson, J F	do " "	4 " 90	360 00	
Crummer, P	do " "	3 " 80	240 00	
Murray, B M	do " "	2 " 15 d. 60	148 05	
Campbell, L	do " "	2 " 2 d. 90	185 80	
Fraser, J A	do " Atlin	25 days 90	76 00	
Grant, A M	do " Hazelton	22 " 2	44 00	
Scott, J	do " Chilliwack	2 " 3	6 00	
	Total, $2,668.69			18,196 09
	XII.—PUBLIC WORKS.			
	Works and Buildings.			
	Vote No. 122.—Court-house, Prince Rupert.			
Cox, A A	Professional services and expenses (balance)			238 70
	Vote No. 123.—Furniture for Government Offices throughout the Province.			
Paine, E R	Step-ladder, stoves, pipes, etc.,	Alberni	36 70	
Eggert, J	Repairing clocks,	Atlin	6 00	
Kershaw, J B	Gasolene-lamp, mantles, battery,	"	19 60	
Weiler Bros, Ltd	Lamp-shades,	"	1 56	
Fraser, R	Stove,	Clinton	7 75	
Haddad, J B	Repairing clock,	"	1 50	
Wilson, W H	do	Cranbrook	2 25	
McKinnon, A	Blind, chairs, rug, etc.,	Cumberland	62 00	
Tarbell & Son, C H	Stove-pipe,	"	1 05	
Hine, W B	Hanging mantle lamp,	Fairview	9 75	
Trites-Wood Co, Ld, The	3 glasses, 2 whisks,	Fernie	1 35	
Hooson, J E	Window-shades, wire screens,	Fort Fraser	11 80	
Wilmer Mercantile Co	Stove-pipe, lamp, clock, etc.,	Fort George	8 90	
Johnston, J M	4 chairs,	"	4 00	
Tallentire, T N	Repairing stove,	"	3 00	
Field Trading Co, Ltd	6 chairs,	Field	18 00	
Hamilton, A C	Freight on typewriter-desk, etc.,	Golden	2 59	
Hudson's Bay Co, The	Towel-bars, mats, etc.,	"	11 63	
Nicholson, C	Freight and cartage on table, legal sections,	"	28 82	
Office Specialty Co, The	Table, desks, chairs, etc.,	"	311 65	
Parsons, Ltd, H G	8 shades, and express charges,	"	31 50	
Rury, G	Lock on desk,	"	1 25	
Warren, C A	Electric hand-lamp,	"	2 50	
Gulley & Company, T M	Couch,	Greenwood	22 00	
White, A L	Repairing chair,	"	25	
Macey Office Equipm't Co	Cabinet and folders,	Hazelton	32 95	
McCready, W	Repairing typewriter,	"	1 00	
Ruddy & Mackay	do hand-wagon,	"	2 00	
Sargent, Ltd, R S	Casting and door for stove, snow-shovel,	"	2 85	
Stephenson & Crum	Making and setting up book-case,	"	11 12	
Dalgleish, N S	1 range, 4 document-files, etc.,	Kamloops	389 81	
Gordon, J L	2 blinds, Court-house,	"	16 00	
do	Repairing drawer, Land Registry Office,	"	60	
do	4 transfer-cases, Provincial Police Office,	"	30 00	
Hargraves, W	Repairing typewriter-desk, Land Registry Office,	"	3 00	
Kamloops S & D Factory	1 pigeon-hole case, Land Registry Office,	"	9 00	
Kerr, W J	Clock, Court-room,	"	8 00	
Marsh Bros	Electric fixtures, Court-house,	"	85	
Burrows, G	Repairing chair,	Kaslo	1 00	
Byers, Giegerich, Green Co	Oil, varnish, paint-brush, etc.,	"	1 45	
Elliott, F C	1 cabinet,	"	5 00	
Office Specialty Mfg Co	Rubber tire for office truck,	"	4 30	
Menhinick, L C S	Repairing office chair,	"	60	
Glaholm, W	Stove,	Nanaimo	5 00	
Langton, W M	Repairs to chair, Court-house,	"	1 25	
Nash, A	Stain and brush,	"	75	
Office Specialty Co, Ltd	Transfer-case and card-cabinet,	"	44 20	
Pearson & Co, G S	Mats, Court-house,	"	3 55	
	Carried forward			238 70

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			238 70
	XII.—PUBLIC WORKS.—*Continued.*			
	Works and Buildings.—*Continued.*			
	***Vote No. 123.—Furniture for Government Offices throughout the Province.*—Continued.**			
Sampson, John	Coat-hooks, curtain-rings, etc., Court-house,	Nanaimo	1 30	
Schofield, A	Expressage on cabinet,	"	50	
Spencer, Ltd, D	9 square yards cork linoleum, Court-house,	"	13 50	
Spencer, Ltd, D	29½ yards cork linoleum and laying same, Police Office,	"	41 60	
Binns, N	2 tables, chair, desk,	Nelson	43 00	
Canada Drug & Book Co	4 document sections, Land Registry Office,	"	96 00	
Robertson, D J	Yale lock and repairs, window-screens, Land Registry Office,	"	12 50	
Standard Furniture Co	Repairs,	"	2 50	
Waters & Co, T H	2 screen-windows and repairing blue-print frame,	"	7 25	
Anderson & Lusby	Door-mat, Court-house,	New Westminster	5 50	
Cunningham H'rdwre Co	1 thermometer, Court-house,	"	65	
Eilers, W A	Repairing clock, Government Agent's Office,	"	50	
Galbraith & Sons	Book-case and case of shelves, Land Registry Office,	"	23 75	
Hudson, H P	Painting book-case, Land Registry Office,	"	1 00	
Merchants, Ltd	Trimming linoleum, Court-house,	"	6 25	
McAllister, Ltd	12 armchairs, 1 mirror, Court-house,	"	28 25	
Reliable Furniture Co	2 book-cases, Land Registry Office,	"	15 00	
Speck, G R	Making keys, etc.,	"	75	
The Fair	Glasses and jugs, Court-house,	"	2 85	
Wintemute, —	Iron brackets and repairing desk, Land Registry Office,	"	1 25	
Bulger & Denike	Repairing clock,	Prince Rupert	1 00	
Clayton, G L	Telephone-brackets,	"	6 00	
Macey Office Equipmt Co	Filing-cabinet.	"	22 50	
Stork, F	Mat,	"	2 00	
Tite, G D	Office stool, window-awnings, repairs, etc., Govt. Agent's Office,	Prince Rupert	48 10	
do	Desk, chairs, filing-cabinet, Inspector of Mines' Office,	Prince Rupert	214 50	
do	Tables, chairs, etc., District Agriculturist's Office,	"	81 20	
do	Covering tables, Sheriff's Office,	"	12 00	
House Co, Ltd, A E	1 damper,	Princeton	25	
Cowan Supply Co	3 yards linoleum, Government Agent's Office,	Quesnel	3 00	
Cowan Supply Co	Material for shelves, etc., Assessor's Office,	"	1 55	
Norwood Bros	Making and erecting book-shelf, Government Agent's Office,	Quesnel	2 00	
Reid Estate, J R	Lumber, Assessor's Office,	Quesnel	1 50	
Smith & Champion	Green shades, Assessor's Office,	"	14 70	
Bourne Bros	Elbows and pipes,	Revelstoke	1 90	
Howson & Co, Ltd	Repairs,	"	1 10	
Knight, G H	Repairs, flag,	"	50	
B C Electric Ry Co, Ltd	Heaters, Court-house,	Vancouver	14 00	
Brooks-Corning Co, Ltd	3 stools, Game Warden's Office,	"	10 50	
do	1 stool, Government Agent's Office,	"	3 50	
do	Chair-casting, Land Registry Office,	"	1 60	
Cunningham's, Ltd	Scales, Court-house,	"	6 75	
Dixon & Murray	Labour and material for cupboard, Markets Commissioner's Office,	Vancouver	7 80	
Flett, Ltd, J A	Brass desk-butts, Court-house,	Vancouver	90	
Hudson's Bay Co	Repairing cushions, Court-house,	"	1 50	
Office Specialty Mfg Co	Steel cabinet, Timber Inspector's Office,	"	51 75	
Harris E	Repairing tables,	Vernon	2 60	
Norris Safe & Lock Co, Ltd	Repairing safe, etc., Government Agent's Office,	"	10 00	
Rogers & Co, A	Plates for drawer-locks, Government Agent's Office,	"	1 00	
Vernon Hardware Co	Yale padlock, Government Agent's Office,	"	2 25	
Lemon, Gonnason Co, Ltd	Lumber, Agricultural Department,	Victoria	14 00	
Macey Office Equipmt Co	Tables, chairs, cabinets, etc., Agricultural Department,	"	553 30	
Spencer, Ltd, D	Metal roller, carpets, chairs, tables, etc., Agricultural Department,	Victoria	305 65	
Victoria Book & Stat Co	Filing-cabinets, Agricultural Department,	Victoria	75 10	
Victoria Furniture Co, Ltd	Tin roller, Agricultural Department,	"	1 50	
Weiler Bros, Ltd	Desk, chairs, lounge, carpets and laying same, Agricultural Department,	Victoria	393 85	
Hawkins & Hayward	Lamps, shades, etc., Agricultural Credit Commission,	Victoria	27 50	
Macey Office Equipmt Co	Desk, Agricultural Credit Commission,	"	52 20	
Spencer, Ltd, D	Making office cushion, Agricultural Credit Commission,	"	7 10	
Weiler Bros, Ltd	Desk,	"	60 00	
Spencer, Ltd, D	Linoleum and laying same, Attorney-General's Department,	"	60 75	
Weiler Bros, Ltd	Rug, sofa, chair, curtaining, etc., Attorney-General's Department,	Victoria	547 85	
Hawkins & Hayward	Lamp and shade, Audit Department,	Victoria	5 50	
Shortt, Hill & Duncan, Ltd	Clocks, Audit Department,	"	14 50	
Weiler Bros, Ltd	Rubber mat, Audit Department,	"	3 00	
Spencer, Ltd, D	Ball-bearing castors, Carpenter Shop,	"	2 20	
Shortt, Hill & Duncan, Ltd	Repairs to clock, Civil Service Commission,	"	1 50	
Melrose Co, Ltd	Glass for clock, Court-house,	"	60	
Spencer, Ltd, D	Sweeper and re-covering chairs, Court-house,	"	11 25	
Weiler Bros, Ltd	Mats, Court-house,	"	10 00	
Shortt, Hill & Duncan, Ltd	Repairs to clock, Dykes Department,	"	2 00	
Spencer, Ltd, D	Rug, Dykes Department,	"	8 75	
Drake Hardware Co, Ltd	Handles, locks, etc., for cabinet, Education Department,	"	28 15	
Lemon, Gonnason Co, Ltd	Lumber for table, Education Department,	"	13 95	
Weiler Bros, Ltd	Cork linoleum and laying the same, Education Dept.,	"	5 45	
Leigh & Sons, J	Lumber for cabinet, Fisheries Department,	"	11 37	
	Carried forward			238 70

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		238 70
	XII.—PUBLIC WORKS.—*Continued.*		
	Works and Buildings.—*Continued.*		
	Vote No. 123.—Furniture for Government Offices throughout the Province.—Continued.		
Shortt, Hill & Duncan, Ld	Clock, Fisheries Department, Victoria	3 50	
Hawkins & Hayward	Fan, lamp-shade, Forest Branch, "	40 50	
Macey Office Equipmt Co	Cabinets, desk, transfer-cases, Forest Branch, "	243 85	
Smith & Champion	Cushion, Forest Branch, "	2 50	
Weiler Bros, Ltd	Cork carpet and laying the same, Forest Branch, "	57 25	
Carter Electric Co	Desk-lamp, Health Department, "	4 90	
Hawkins & Hayward	Lamp and shades, Health Department, "	5 50	
Lemon, Gonnason Co, Ld	Lumber for cabinet, Health Department, "	35 58	
Macey Office Equipmt Co	Filing-cabinets, Health Department, "	212 90	
Office Specialty Mfg Co.	Truck, Health Department, "	36 35	
Shortt, Hill & Duncan, Ld	Repairs to clock, Health Department, "	2 25	
Macey Office Equipmt Co	Card-cabinet, Insurance Department, "	16 00	
Macey Office Equipmt Co	Steel cabinet, Joint-stock Companies Department, "	56 00	
Weiler Bros, Ltd	Shades, Joint-stock Companies Department, "	2 70	
Leigh & Sons, J	Lumber for draughting-table, Lands Department, "	7 30	
Lemon, Gonnason Co, Ld	Lumber, etc., Lands Department, "	21 50	
Macey Office Equipmt Co	Hat-stand, Lands Department, "	10 00	
Melrose Co, Ltd	Step-ladder and painting same, Lands Department, "	3 80	
Smith & Champion	Hall-rack, Lands Department, "	12 50	
Spencer, Ltd, D.	Chalks, green baize, etc., cushions, Lands Department, "	27 15	
Weiler Bros, Ltd	Carpet, cushions, etc., Lands Department, "	489 00	
Wilson, W & J	Lounge-cover, Lands Department, "	10 00	
Green, J	Repairs to truck, desk, Land Registry Office, "	13 50	
Spencer, Ltd, D.	Door-mats, Land Registry Office, "	8 00	
Victoria Book & Stat Co.	Steel-sections and document-cases, Land Registry Office, "	207 00	
Hibben & Co, T N	Ink-well covers, Legislative Hall, "	1 50	
Morrall, F	Members' desks, Legislative Hall, "	260 00	
Weiler Bros, Ltd	Felt, chairs, shade, and repairs, Legislative Rooms, "	77 30	
Hickman-Tye Hdwre Co.	Desk-locks, Library, "	8 63	
Macey Office Equipmt Co	Drawers for letter-file, Library, "	49 65	
Powell & Sons, G	Picture-wire, hooks, etc., Library, "	2 70	
Spencer, Ltd, D.	Cushions and hat-stands, Library, "	143 35	
Victoria Furniture Co, Ld	Shade-roller, Library, "	50	
Weiler Bros, Ltd	Repairing shades, Library, "	50	
Hawkins & Hayward	Lamps, shades, etc., Mines Department, "	16 00	
Macey Office Equipmt Co	Hat and coat stands, book-case, Mines Department, "	50 10	
Spencer, Ltd, D.	Rugs, couch, cushions, etc., Mines Department, "	225 55	
Weiler Bros, Ltd	Linoleum, curtaining, towel-racks, etc., Mines Department, "	147 85	
Smith & Champion	Hall-stand, Inspector of Municipalities, "	17 50	
Melrose Co, Ltd, The	Glazing mineral-cases, etc., Museum, "	4 50	
Weiler Bros, Ltd	Chairs, Museum, "	27 00	
Hawkins & Hayward	Lamps, shades, Museum, "	24 75	
Victoria Furniture Co, Ld	Tables, Museum, "	19 00	
Macey Office Equipmt Co	Safe, Premier's Office, "	90 00	
Lemon, Gonnason Co, Ld	Lumber for shelving, Printing Department, "	8 34	
Melrose Co, Ltd, The	Step-ladder and painting same, Printing Department, "	3 85	
Powell & Sons, G	Dampers and pipe, heaters, etc., Printing Department, "	55 75	
Victoria Furniture Co, Ld	Window-shades, Printing Department, "	10 20	
Green, J	Repairing safe, Provincial Police Department, "	3 50	
Heaney, J	Freightage, Provincial Police Department, "	16 00	
Macey Office Equipmt Co	Transfer-cases, Provincial Police Department, "	48 00	
Powell River Co, Ltd	Crating safe, Provincial Police Department, "	4 10	
Macey Office Equipmt Co	Filing-cabinets, Provincial Secretary's Department, "	87 90	
Victoria Book & Stat Co.	Filing-cases, Provincial Secretary's Department, "	32 00	
Weiler Bros, Ltd	Brackets, rods, Provincial Secretary's Department, "	6 70	
Hawkins & Hayward	Repairing heater, Public Works Department, "	1 72	
Shortt, Hill & Duncan, Ld	Clock and repairs, Public Works Department, "	6 25	
Spencer, Ltd, D.	Hat-stand and covering for table, Public Works Department, "	29 50	
Victoria Book & Stat Co.	Framing roll of honour, Public Works Department, "	9 00	
Weiler Bros, Ltd	Tumblers, cushions, and sundry repairs, Public Works Department, Victoria	67 20	
Macey Office Equipmt Co	Table and chair, Railways Department, Victoria	67 00	
Weiler Bros, Ltd	Cushion, Railways Department, "	3 25	
Colonial Trust Co	Desk and chair, Returned Soldiers' Aid Committee, "	32 00	
Victoria Book & Stat Co.	Filing-cabinets, Returned Soldiers' Aid Committee, "	84 00	
Macey Office Equipmt Co	Typewriter-desk and chair, Shipping Credit Commission, "	73 50	
Tite, C H	Varnish and paint, Shipping Credit Commission, "	2 75	
Weiler Bros, Ltd	Upholstered chairs, Speaker's Room, "	120 00	
Shortt, Hill & Duncan, Ld	Repairs to clock, Surveyor of Taxes, "	2 50	
Smith & Champion	Cushions, Telephone Exchange, "	6 50	
Macey Office Equipmt Co	Office chairs, Treasury Department, "	74 50	
Macey Office Equipmt Co	Cabinets, Inspector of Trust Companies, "	128 50	
Victoria Book & Stat Co.	Steel filing-cabinets, Water Rights Department, "	103 50	
Macey Office Equipmt Co	Desks and chairs, Workmen's Compensation Board, "	212 00	
Office Specialty Mfg Co.	Card-ledger cabinets, Workmen's Compensation Board, "	150 00	
Victoria Book & Stat Co.	Sections, cupboard-base, etc., Workmen's Compensation Board, Victoria	95 25	
Carter Electric Co	Lamps and shades, sundry departments, Victoria	49 00	
	Carried forward		238 70

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	238 70
	XII.—PUBLIC WORKS.—*Continued.*			
	Works and Buildings.—*Continued.*			
	Vote No. 123.—Furniture for Government Offices throughout the Province.—Concluded.			
Dept of Indian Affairs, Ottawa	Furnishings, etc., sundry departments,	Victoria	361 20	
Drake Hardwre Co, Ltd.	Filter-stones, sundry departments,	"	21 00	
Francis, D	Furnishings, etc., sundry departments,	"	479 70	
Spencer, Ltd, D	Chair-seats, mats, and repairs, sundry departments,	"	34 20	
Warburton, H	Repairs to desk, sundry departments,	"	3 50	
Weiler Bros, Ltd	Cuspidors, sundry departments,	"	22 80	
Berry, J	Services as Carpenter, sundry departments	19 days @ $4.25	80 75	
Davis, A	do "	29 " 4.25	123 23	
Davis, Wm	Covering tables, Lands Department	1 " 4.25	4 25	
Ellice, E W	Services as Carpenter, sundry departments	24½ " 4.25	104 10	
Ford, E A	do "	1½ " 4.25	6 38	
Osborn, F	do "	24½ " 4.25	104 10	
Nicholson, N	do "	98½ " 4.25	418 59	
Strangway, R	do "	10 " 4.25	42 47	10,837 84
Tite, C H	Services as Painter, sundry departments ....varnish, etc., $2.50;	22¾ " 4.25	99 17	
Tyson, W	Services, covering tables, Lands Department	1 " 4.25	4 25	
Tyson, W A	Services as Carpenter, sundry departments	96 " 4.25	408 03	
	Vote No. 124.—Gaols and Lock-ups throughout the Province (Maintenance and Repairs).			
Alert Bay Cannery Stores	Gasolene,	Alert Bay Lock-up	2 25	
Alert Bay Saw Mills	Lumber, nails, stain, etc.,	"	34 53	
Blackstone, J L	Repairing verandah and steps,	"	14 00	
Gibbens, A A	Repairing and painting roof,	"	14 00	
Lipsett, Edward	1 Union Jack,	"	7 75	
Campbell Storage Co, Ld	Freight,	Alice Arm Lock-up	16 90	
Crawford, W J	Hauling lumber, $4; transfer of double cell, $6,	"	10 00	
Dolly Varden Mines Co	Building police quarters,	"	33 00	
Falconer, T W	Tent, stove, pipe, axe, heater, etc.,	"	112 65	
Kergin, H S	Lumber,	"	29 12	
Hume, C B	Lamp,	Arrow-head Lock-up	30	
Reid, W R	Stove-grates,	"	5 00	
Burr, J L	Teaming,	Ashcroft Lock-up	7 00	
Dumond, Mark	Water-pipe repairs, boiler, etc.,	"	22 90	
Lake & Son, J	Lamp-glasses, axe, etc.,	Athalmer Lock-up	95	
Gilmore, C E	Papering Provincial Constable's residence, etc.,	Atlin Lock-up	79 00	
Hardiman, J W	(Paid) Pump, cells, and furniture, etc.,	Blue River Lock-up	39 15	
Markle, B E	Window-blinds,	Bull River Lock-up	1 40	
Adams River Lumber Co	Electric-light bulbs,	Chase Lock-up	1 00	
Brickland, H E	(Paid) Thawing and repairs to water-pipes, etc.,	"	5 90	
Condon, M J	(Paid) Repairs,	"	2 50	
McConnell, A	1 coil for cook-range,	"	4 00	
Davis, J A	Material and labour for 2 chimneys, etc.,	Clinton Lock-up	132 50	
Fraser, Robert	Lime, kalsomine, etc.,	"	13 65	
Harvey-Bailey, Ltd	Wall-paper,	"	5 75	
Boardman, J	Whitewashing, painting, etc.,	Coal Creek Lock-up	6 00	
Flathead Trading Co	Lock and key,	Corbin Lock	1 25	
Trites-Wood Co, Ltd	Electric globes,	"	1 80	
Bevan, R S	50 feet ½-inch hose,	Creston Lock-up	7 50	
Tarbell & Son, C H	Yale lock and stove,	Cumberland Lock-up	14 50	
Gayer & Connelly	Cement, sand, haulage, etc.,	Endako Lock-up	6 50	
Brewster Transport Co	Manure,	Field Lock-up	2 00	
Field Trading Co, Ltd	Electric globes, cook-stove grate, etc.,	"	13 35	
Murray, Peter	Fixing water-pipes,	"	3 40	
White, Walter W	Repairing roof, etc.,	Fort Fraser Lock-up	6 00	
Cadenhead, H A	Paint, oil, etc.,	Fort St. John Lock-up	7 30	
Carmichael, B E	Fence-wire, teaming, etc.,	"	62 33	
Carmichael & Briscoe	Lamp-globes,	"	75	
Chubb & Carmichael	Lumber,	"	3 25	
Farrell, H	Door for cell,	"	2 50	
Hudson's Bay Co	Lamp-globe and burner,	"	65	
Ogilvie, R J	Teaming and erecting barb-wire fence,	"	27 00	
Revillon Freres	Lamp-globes, paint, stove-pipe, etc.,	"	17 40	
Tredwell, Frank	Labour,	"	3 00	
Watson, W	Preparing pickets and erecting fence,	"	55 50	
Attree, E H	Cleaning chimney,	Fort Steele Lock-up	3 00	
Fort Steele Trading Co	Lamp-glasses,	"	1 50	
McBride, J D	Smoke-stack for chimney,	"	8 65	
Reynolds, Charles J	Painting flag-pole,	"	6 75	
Columbia River Lbr Co	Electric-lamps, etc.,	Golden Lock-up	15 15	
Hamilton, A G	Hauling steel cells,	"	2 00	
Parson, Ltd, H G	Stove-grate for heater,	"	2 90	
Rolston, D R	Snow-shovel,	"	1 25	
	Carried forward		.....	11,076 54

TO WHOM PAID	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			11,076 54
	XII.—PUBLIC WORKS.—*Continued.*			
	Works and Buildings.—*Continued.*			
	Vote No. 124.—Gaols and Lock-ups throughout the Province (Maintenance and Repairs).—Continued.			
Warren, Chas A	Green baize and galvanized iron,	Golden Lock-up	6 00	
Hutchings, J M	Paint,	Granby Bay Lock-up	3 00	
Buckless, F C	Freight,	Greenwood Lock-up	10 09	
Cunningham & Son, Ltd	Stain, varnish, lamp-globes, etc.,	Hazelton Lock-up	23 45	
Holland, Wm H	Oak stain,	"	2 25	
Hudson's Bay Co	Bolts for door,	"	35	
Hudson's Bay Co	Paint-brush, nails, etc.,	"	3 25	
Sargent, Ltd, R S	Lime, paint, stove, etc.,	"	43 30	
Stephenson & Crum	Repairing floor, etc,	"	66 75	
Wood, Vallance & Leggat, Ltd	Paint, shingles, etc.,	Jedway Lock-up	63 00	
Dalgleish, N S	150 feet ¾-inch hose, gasolene, etc.,	Kamloops Lock-up	71 54	
Darling & Co, Frank	Clock-dial,	"	3 60	
Johnstone & Co	Lime, bricks, etc.,	"	132 85	
Kamloops Plumb & H Co	Smoke-stack, etc.,	"	44 23	
Marsh Bros	Tungsten lamps,	"	8 40	
Prior & Co, Ltd, E G	Pipe, etc.,	"	10 04	
Tedder Lumber Co, J E	Lumber,	"	50	
Graham, E C	Scrubbing floor,	Kelowna Lock-up	1 00	
Kincaid, Jas	Repairing fence, etc.,	"	18 00	
Morrison Hardware Co	Floor-oil, stove, etc.,	"	16 75	
Treadgold, T	Painting interior of lock-up,	"	7 00	
Lillooet Trading Co	Lime,	Lillooet Lock-up	5 00	
Gibson, W	Labour,	Lucerne Lock-up	15 30	
Gowdy, L T	2 tables,	"	3 00	
G T P Railway Co	Freight,	"	4 20	
The Northern Lumber & Mercantile Co, Ltd	Stove-pipe, etc.,	"	4 30	
Gunderson, G	Hauling steel cell,	"	1 50	
Martin, Robert	Water-tap, glass, etc.,	Lytton Lock-up	6 00	
McIntosh & Baillie	Screen door and fittings,	"	3 25	
Brickman & Martin	Lumber,	Masset Lock-up	12 00	
Bridden, J	Fixing doors and windows and building chimney,	"	24 00	
Martin, James	Nails for fence and galvanized iron-pipe,	"	1 70	
Steen & Longwill	Repairing heater, etc.,	"	5 50	
Clarke, J J	Work on window and lock,	Merritt Lock-up	1 00	
McMynn, Jas G	Wire screen for doors,	Midway Lock-up	6 50	
Pannell, H H	Concreting well,	"	40 00	
Abbott & Abbott	Sewerage, stove-pipe, etc.,	Mission City Lock-up	4 75	
Barber, C G	(Paid) Kalsomining walls,	"	3 00	
The River Lumber Yard	Galvanized iron, nails, etc.,	"	14 52	
Winch, W	Septic tank, etc.,	"	35 00	
Kingscote & Birchard	Stove-pipe, etc.,	Mount Olie Lock-up	2 75	
Latremouille, J H	Installing electric lights,	"	11 00	
Goodman Supply Co	Mosquito-netting, screen door, rake, etc.,	McBride Lock-up	11 60	
Grand Trunk Pacific Ry	Rental of pipe-line, freight,	"	5 30	
Jamieson, Louis C	3 aerial lamps, etc.,	"	15 75	
Moynihan, C G	Teaming,	"	13 45	
Nystrand, Gust	Gun-racks, etc.,	"	13 00	
James Ramsay, Ltd	3½ yards felt,	"	3 50	
Upper Fraser Lbr Co, Ld	Lumber,	"	12 00	
Wyatt Bros	Lawn seed, mantles for lights,	"	17 90	
Hoggan, William	Wheelbarrow, etc.,	Nanaimo Lock-up	8 00	
Ideal Plumbing & Htg	Stop and waste cock, etc.,	"	26 95	
Trites-Wood Co, Ltd	Electric lights, etc.,	Natal Lock-up	3 40	
B C Plumbing & Htg Co	Repairs, etc.,	Nelson Lock-up	1 20	
Frank Darling & Co	Watchmen's clock,	"	3 60	
J S Deschamps Lbr Co	Lumber,	"	3 52	
Howe Electric Co	Reading-lamp, etc., and electric lamp-globes,	"	13 15	
A G Lambert Co, Ltd	Lumber,	"	26 32	
Nat Heating & Plumb Co	Repairing closet,	"	1 85	
Nelson Hardware Co	Black Leaf 40, lining for stove, etc.,	"	7 05	
Nelson Transfer Co, Ltd	Cartage,	"	50	
Rahal, Philip J	4 catchers for mower,	"	50	
Rutherford's Drug Store	Wall-paper,	"	14 45	
Wood-Vallance Hdwre Co	Range-boiler, hot-water tank, etc.,	"	159 39	
Angrignon, P	Freight on lumber,	New Denver Lock-up	1 00	
Johnson, Ole	Dormal window, etc.,	"	9 00	
Silverton Lbr & Power Co	Lumber and shingles,	"	9 39	
Smith, J B	Nails,	"	1 40	
Annandale Supply Co	Whitewash-brushes,	New Westminster Lock-up	2 70	
C P Railway Co	Freight,	"	6 00	
Cunningham Hdwre Co	Linseed-oil, white lead, etc.,	"	71 95	
Gilley Bros, Ltd	Cement, etc.,	"	35 10	
Mahony & Gifford	Installing hot-water boiler, repairing gutters, etc.,	"	846 58	
Small & Bucklin Lbr Co	Lumber,	"	20 90	
	Carried forward			11,076 54

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			11,076 54
	XII.—PUBLIC WORKS.—*Continued.*			
	Works and Buildings.—*Continued.*			
	Vote No. 124.—Gaols and Lock-ups throughout the Province (Maintenance and Repairs).—Concluded.			
Speck, George R	Electric-light globes, etc.,	New Westminster Lock-up	12 10	
Spring & Sibley	Solder, gasolene, etc.,	"	1 80	
House & Co, Ltd, A E	Coal-oil lamp, etc.,	Nicola Lock-up	3 25	
C P Railway Co	Rent of gaol-site,	North Bend Lock-up	1 00	
C P Railway Co	Rent of roadway-site,	Notch Hill Lock-up	1 00	
Cariboo Trading Co	Stove-pipe,	150-Mile House Lock-up	80	
Goddard, J E	Repairs to waste-water pipe,	Phoenix Lock-up	2 75	
Morrin, Thompson & Co.	Alabastine, etc.,	"	2 10	
McDougall, —	Fixing water-pipes,	"	2 50	
Brown, Jas A	Lumber, nails, and labour,	Port Essington Lock-up	113 71	
Cunningham & Sons, R.	Stove-pipe, water-pipe, etc.,	"	30 10	
Young, R Boyd	Shingles, etc.,	Port Simpson Lock-up	2 20	
Werner, J A	Small heating-stove,	Pouce Coupe Lock-up	4 75	
Powell River Co, Ltd.	Hand-sign and fixing roof, etc.,	Powell River Lock-up	27 94	
Penticton Electric Co	Electric-light globes,	Princeton Lock-up	2 30	
Howison Estate, J W	Stove-pipe, etc.,	Quesnel Lock-up	2 75	
Leonard, Russell A	Repairing chimneys,	"	5 00	
Norwood Bros	Screen door,	"	4 50	
Bell & Co, R B	Varnish, etc.,	Salmo Lock-up	5 60	
Kennington, G A	Repairing chimney,	"	3 50	
Lindon, Carl	3 window-panes,	"	65	
C P Railway Co	Rent of gaol-site,	Sicamous Lock-up	1 00	
Freeman, A S	Painting,	"	40 00	
Critchley, J	Yale lock,	Sidney Lock-up	3 25	
Shore Hardware Co	2 padlocks,	"	1 70	
Sidney Trading Co	Stove, etc.,	"	9 90	
Wilson, T H	Varnish,	Silverton Lock-up	8 75	
Chisholm, A	Stove, locks, lamp, etc.,	Smithers Lock-up	21 50	
Sargent, Ltd, R S	Stove, furniture, etc.,	"	30 70	
Todd, D	Painting cells, etc.,	"	19 00	
Corning, J P	Window-shades, etc.,	South Fort George Lock-up	3 30	
Kennedy, Blair & Co, Ltd	Axe, saw set, chisel, etc.,	"	4 10	
Norther Lumber & Mercantile Co, Ltd	1 light, lamp, etc.,	"	10 60	
Northern Telephone & Power Co, Ltd	Electric-light globes, etc.,	"	10 20	
Prince George Sash & Door Co	Storm-doors, windows, etc ,	"	104 15	
C P Railway Co	Permission to connect water-pipe,	Spences Bridge Lock-up	1 00	
Kennedy, Wallace	Renewing sink-pipe, etc.,	Squamish Lock-up	23 90	
Benidick, O	7 rolls heavy roofing, nails, etc.,	Telkwa Lock-up	24 90	
Fairbairn, A	(Paid) Linoleum, etc.,	"	13 10	
McLauchlin, K K	2 galvanized buckets,	"	3 50	
De Fontaine, Henry	Painting flagstaff, etc.,	Terrace Lock-up	10 00	
La Zelle Co, F	Galvanized iron for heater,	"	1 00	
Austin, A	Tar-paper,	Tete Jaune Cache Lock-up	1 10	
Crummy Bros	Rubberoid,	"	3 25	
Farnsworth, Robert	Labour,	"	8 00	
Gunderson, G	Cartage,	"	9 00	
Kirkness Bros	Heater, pipe, etc.,	Vananda Lock-up	10 10	
Ramsey, H G	Repairing roof, etc.,	Vancouver Lock-up	97 00	
B C Electric Ry Co, Ltd.	Installing fan,	"	35 00	
City Chimney Sweep Co.	Painting flag-pole,	"	12 50	
Heaps & Sons	Lumber,	"	35 00	
Lewis & Sills, Ltd	Nails, etc.,	"	3 95	
Redburn, Samuel B	Staining and painting vegetable and tool house,	"	12 00	
Smith's Electrical Co, Ld	Fixing light,	"	5 00	
Weeks & Co, Ltd	Repairs to toilet,	"	55 37	
Burger, M E	Repairs to gasolene-lamp,	Vanderhoof Lock-up	1 25	
Johnston, J M	Lamp-globe, heater, etc.,	"	6 20	
Mitchell, E A	Mantles for gasolene-lamps,	"	2 60	
Ruttan, J L	Door and casing,	"	12 00	
Collins, A	Work on steel cells,	Waldo Lock-up	26 75	
Dryden, Alfred	(Paid) Hire of team and wagon,	"	3 00	
Duthie Co	Stove-pipe, etc.,	"	3 25	
Fernie Optical Parlors	Electric-light globes,	"	2 00	
Kootenay Telephone Co.	Removing telephone,	"	5 00	
Crow's Nest Pass Lbr Co.	Electric globes,	Wardner Lock-up	80	
Barr, H W	Taking down and hauling steel cells,	Wasa Lock-up	15 00	
B C Electric Ry Co, Ltd.	Freight and switching charges		72 08	
C P Railway Co	Freight		6 60	
G T P Railway Co	do		7 58	
Vanc Warehouses, Ltd	Rent of spaces for storage of steel cells		294 15	
				4,305 65
	Carried forward			15,382 19

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward	.....	15,382 19
	XII.—PUBLIC WORKS.—*Continued.*		
	Works and Buildings.—*Continued.*		
	Vote No. 125.—Prison Farm, Oakalla.		
Alberta Lumber Co, Ltd	Lumber	630 75	
Anderson & Lusby	Hardware, galvanized-iron guttering and pipe	528 15	
Canadian Explosives Co.	Stumping-powder	96 63	
Can Gen Electric Co, Ld	Mazda lamps, fuses, etc	88 65	
Corp District of Burnaby	Licence fee to use blasting-powder	2 50	
Frank Darling & Co	Clock-dials for punch-clock and postage	3 56	
False Creek Lbr Co, Ld.	Lumber, etc.	710 18	
Gilley Bros, Limited	Gravel, sand, and crushed rock	819 00	
Hamilton & Co, Robert.	Arch abutments for 2 boilers, etc	18 94	
Hudson's Bay Company.	Brick bake-oven, proving-box, dough-mixer, bread-pans, etc.	1,795 75	
Leek & Co, Ltd	Inspecting boiler, oil-separating tank, valves, pipe-elbows, etc	286 32	
Lewis & Sills, Ltd	Monkey-wrench, rubber hose, lights, glass, staples, batteries, etc	380 80	
Northern Electric Co, Ld	Plug clusters, telephone-wire, attachment-plugs, etc	45 45	
Prior & Co, Ltd, E G	M. and H. mower, steel rake, Planet Junior, posts, etc	131 45	
Robertson-Godson Co, Ld	Pressure-regulator, black pipe, galvanized pipe, hose-valves, etc	699 66	
Simson, Balkwill & Co, Ld	Skookum packing and flax packing	3 55	
Steele, Manilus B	Pyrene fire-extinguishers	67 50	
Trapp & Co, Ltd, T J	Fleury pulper and slicer and Fleury straw-cutter	82 00	
			6,390 84
	Vote No. 126.—Prison Farm, Saanich.		
Baker Brick & Tile Co	2,000 3-inch tile	40 00	
Beatty Bros, Ltd	3 steel stalls, stall-post, cement gutter-cover, etc	212 65	
Blagburn, W T	48 loads manure	24 00	
Brackman-Ker Milling Co	Arsenate of lead, lime and sulphur spray, and 10 lb. clover-seed	6 60	
B C Electric Ry Co, Ltd	Repairs to cable	21 61	
B C Telephone Co, Ltd.	Cutting line to H.G. cable	2 60	
Carter Electric Co	Supplying telephone cable, etc., repairing bells and clocks and installing batteries	130 57	
Corp District of Saanich	Grant towards installing water-main	10,000 00	
Darling & Co, Frank	2 boxes clock-dials	7 15	
Evans, Coleman & Evans	360 sacks cement	128 27	
Exton, Thos	76 barrels lime	57 00	
Gilchrist, Mrs A K	30 yards gravel	3 00	
Jones, Edward	Gravel and sand	19 75	
Knott & Jones	476 hours' labour for bricklaying on stable building	374 85	
Lemon, Gonnason Co, Ld	Lumber	292 61	
Mitchell, Charles	Labour, putting in cement floor in new stable and wagon-house	17 87	
Munro, J	Freight on two packages stable fittings	70	
Mussen, Richard	36 days as Acting-Engineer	118 05	
Shore Hardware Co, Ltd	Lawn-mower, etc.; fire-bricks, etc.; neck-yoke, etc.; roofing, ammonia, hardware, etc	413 20	
			11,870 48
	Vote No. 127.—Improvement of Government Grounds, Victoria.		
Armstrong Bros	Repairs to lawn-mower, etc	22 85	
Barnes, A H	Assembling stone in shed, Queen Victoria statue	60 50	
Brown Bros & Co, Ltd	2 dozen dahlias	4 00	
Burns & Co, Ltd, P	1½ tons fertilizer	89 50	
Calwell, H	Truck, hauling plants and earth, etc	77 80	
Cubitt & Co, William	Work done to statue at Royal Exchange	663 00	
Drake Hardware Co, Ltd	Braun grass-catchers, rakes, etc., and carborundum powder	20 45	
Flewin's Gardens	2 dozen dahlias	3 00	
Heaney, J	Teams, hauling rock	101 40	
Layritz Nurseries	Flowers	31 30	
Mable, W	Repairing lawn-mower	3 00	
McQuade & Son, Peter	Manila rope	22 70	
McTavish Bros	Account shipment of granite, duty, wharfage, brokerage	1,094 15	
Powell & Sons, Geo	2 only Great American lawn-mowers, trimming-machine, etc	64 20	
Prior & Co, Ltd, E G	Hose, sprinklers, rakes, brooms, etc	110 17	
Quadra Green-House Co.	Flowers	150 00	
Rivers, Hy	Cleaning and painting lamp-posts	35 00	
Smith, Jos	198 loads manure and cart ½ day	100 50	
Vye, Herbert	15 loads manure	22 50	
Webb, F C	Painting flag-pole and flower-boxes and removing weathervane	78 75	
Woodward, A J	Grass-seed	5 00	
Partington, J B	Head Gardener ..... 12 months @ $85	1,020 00	
Brown, W	Gardener ..... 12 " 85	1,020 00	
Crawford, J	do ..... 2 months' superannuation @ $35; 10 " 70	770 00	
Barnes, H	Labourer ..... 106 days 3	318 00	
Bailey, G	do ..... 3 " 3	9 00	
Berry, T	do ..... ½ " 3	1 50	
Bradley, P	do ..... ½ " 3	1 50	
Crow, A	do ..... ½ " 3	1 50	
Craddick, F	do ..... 2 " 3	6 00	
	Carried forward	.....	33,643 51

TO WHOM PAID.	FOR WHAT SERVICE.		cts.	$ cts.
	Brought forward			33,643 51
	XII.—PUBLIC WORKS.—*Continued.*			
	Works and Buildings.—*Continued.*			
	Vote No. 127.—Improvement of Government Grounds, Victoria.—Concluded.			
Clelland, R.	Labourer ... 2 day @ $ 3		6 00	
Carmichael, W.	do ... 1 " 3		3 00	
Cameron, J.	do ... ½ " 3		1 50	
Claydon, J.	do ... 7 " 3		21 00	
Craig, S.	do ... 1 " 3		3 00	
Daft, G.	do ... 50½ " 3		151.50	
Ellice, E W.	Carpenter ... 5½ " 4.25		23 37	
Kershaw, J.	Labourer ... 14 " 3		42 00	
Ford, E.	do ... 5 " 3		15 00	
Greaves, F.	do ... 1 " 3		3 00	
Heal, H.	do ... 1 " 3		3 00	
Hall, D.	do ... 1 " 3		3 00	
Jones, E.	do ... 3½ " 3		10 50	
Mason, J.	do ... ½ " 3		1 50	
Moyes, E.	do ... 138½ " 3		415 50	
Mesher, E.	do ... 1½ " 3		4 50	
Roger, J.	do ... 3 " 3		9 00	
Ralph, T.	do ... 234½ " 3		703 50	
Seymour, E J.	do ... ½ " 3		1 50	
Shepherd, H.	do ... 3 " 3		9 00	
Shater, A.	do ... 3 " 3		9 00	
Stoddart, P.	do ... 26 " 3		78 00	
Savidge, W.	do ... 1½ " 3		4 50	
Stacey, G.	do ... 1 " 3		3 00	
Stephen, A.	do ... 3½ " 3		10 50	
Siderfine, J.	do ... 2½ " 3		7 50	
Tite, C.	do ... ½ " 3		1 50	
Tamblyn, J.	do ... 1 " 3		3 00	
Turner, F.	do ... 2 " 3		6 00	
Unwin, J.	do ... 191 " 3		573 00	
White, J.	do ... 1 " 3		3 00	
Walker, J.	do ... 3 " 3		9 00	
Young, J.	do ... 165 " 3		495 00	
				8,540 64
	Vote No. 128.—Improvement of Government Grounds throughout the Province.			
Paine, E R	Pruning-shears, etc.,	Alberni	2 60	
Stewart, P.	Sharpening lawn-mowers,	"	1 00	
Brown Bros & Co, Ltd	Grass-seed,	Ashcroft	2 60	
Brown Bros & Co, Ltd	Plants,	"	9 15	
Fraser, Robert	Hose and freight,	Clinton	9 00	
Indian Prosper.	Cleaning up and hauling rubbish,	"	2 00	
Woods, Wm	Extra janitor-work, cutting lawn, etc.,	"	2 50	
Daniels, J	Labour, 6 days @ $2.25,	"	13 50	
Young, R.	do 6 " 2.25,	"	13 50	
City Transfer & Warehouse Co	4 loads manure and 4½ hours' ploughing,	Cranbrook	10 15	
Jones & Doris.	Fixing fence, 2½ hours, and 12 pickets,	"	1 55	
Parks & Co, F	1 garden fork,	"	1 50	
Patmore Bros.	Sharpening lawn-mower and grass-shears and oil, etc.,	"	3 00	
Taylor, T.	Labour, digging garden, etc., 10½ days @ $3,	"	31 50	
Braithwaite, Dan	do repairing pipes and fence, 3 days @ $3,	Fairview	9 00	
Gwatkins, Fred.	do work on water-pipes and drains, 7 days at $3,	"	21 00	
Hozier, Leonard	1½ days hauling manure,	"	9 75	
Jones, Chas.	Repairing fence, 2 days @ $3,	"	6 00	
Kaleden Supply Co, Ltd.	Rubber hose-pipe fittings, etc.,	"	30 81	
Madden, Arthur	25 fence-posts,	"	6 25	
McCuddy, J P.	Nails, staples, and clamps,	"	1 35	
Munroe, F.	Cleaning, etc., 4 days @ $3,	"	12 00	
Penticton Hardware Co.	50 lb. galvanized wire,	"	4 00	
C P Railway Co.	Freight on 2 bales shrubbery,	Fernie	10 06	
Currie Bros.	Repairing wheelbarrow,	"	2 00	
Duthie Co.	Hose, lawn-mower, netting, etc.,	"	51 19	
Ferguson, A E	Repairing lawn-roller,	"	1 00	
Fernie Livery Co.	3 loads manure,	"	6 00	
Kennedy & Mangon.	Lumber,	"	2 45	
Mills, Ed	Repairing grounds, 20 days @ $3,	"	60 00	
Quail, J D.	1 steel rake,	"	95	
Trites-Wood Co, Ltd.	Seed and salt, etc.,	"	10 65	
Western Canada Wholesale Co, Ltd	Coarse salt,	"	2 40	
Brown Bros & Co, Ltd	Roses, seeds, and bulbs, etc.,	Golden	7 55	
Nickolson, Chas.	Freight on shade-trees, cartage and manure,	"	15 42	
Warren, Chas A.	1 scythe-blade,	"	1 25	
	Carried forward			42,184 15

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			42,184 15
	XII.—PUBLIC WORKS.—*Continued.*			
	Works and Buildings.—*Continued.*			
	Vote No. 128.—Improvement of Government Grounds throughout the Province.—Continued.			
Chambers, H	Removing ball from flagstaff,	Grand Forks	10 00	
Grand Forks Transfer Co	2 rose-bushes,	"	2 50	
Woodland & Quinn	"Black Leaf" for removing insects,	"	30	
B C Nurseries Co, Ltd	6 blackberry-bushes, 1 rose collection,	Hazelton	7 25	
Helas, L	Labour, 2½ days @ $3.75,	"	9 37	
Neal, William	do 4½ " 3.75,	"	16 87	
Lee, Sam	do 9 hours .25,	"	2 25	
R S Sargent, Limited	1 rake,	"	75	
Stephenson & Crum	Sharpening lawn-mower, etc,	"	1 95	
Utterstrom, Otto	Mowing lawn, 1¾ days @ $3.75,	"	5 00	
Brown Bros & Co, Ltd	Plants,	Kamloops	10 75	
Burns & Co, Ltd, P	Fertilizer,	"	8 50	
Dominion Express Co	Express on plants from Vancouver,	"	72	
Dalgleish, N S	Grass-seed, emery-dust, etc.,	"	7 60	
Dwyer, N E	Freight and cartage on shrubs from New Westminster,	"	2 03	
Ellis & Co, W J	Repairs to lawn-mower,	"	1 00	
Hargraves, W	Sharpening lawn-mowers,	"	2 00	
Kamloops S & D Factory	Lumber,	"	2 45	
Kelly, F A	Repairing lawn-mower knife,	"	1 00	
Wilcox-Hall Co, Ltd	Hose, paint, shears, etc.,	"	21 50	
Archer, F E	35 feet of hose,	Kaslo	10 50	
Byers, Giegerich Green Co	1 bottle oil and washers,	"	35	
Menhinick, Stanley	Fitting plug in garden-roller,	"	60	
Phair, C A	100 feet of hose, couplings, and sprinkler,	Lillooet	19 75	
McBride Trading Co	8 lb. clover-seed,	McBride	1 05	
Wyatt Bros	1 lawn-mower,	"	6 90	
Brackman-Ker Milling Co	20 lb. lawn-grass,	Nanaimo	6 00	
Hoskin, E A	Hauling 1 load ashes,	"	1 00	
Marshall, James	1 load manure,	"	2 00	
Bealby, J T	3½ dozen geraniums,	Nelson	4 35	
Dawes, H L	11 dozen lobelia and 8 dozen geraniums,	"	3 20	
McKim, D J	Flower seeds and plants,	"	6 75	
Rutherford Drug Co, Ld	Flower-seeds,	"	2 90	
Beck, Alex	Levelling lawn, 1 day @ $3,	New Westminster	3 00	
Brackman-Ker Milling Co	Bone-meal, seed, etc.,	"	6 95	
Cunningham Hdwre Co	Hose, oil, rings, etc.,	"	27 95	
Gilley Bros, Ltd	2 sacks lime,	"	1 00	
Speck, Geo R	Sharpening lawn-mower and pinions,	"	5 60	
Brown Bros & Co, Ltd	Bulbs, etc.,	Prince Rupert	10 70	
Fritz, The Handy Man	Sharpening, lawn-mower, etc.,	"	5 85	
Grand Trunk Pac SS Co	Freight on box bulbs,	"	80	
Layritz Nurseries	Roses,	"	7 95	
Orme, Cyril H	2 nictone medium,	"	1 00	
Pacific Cartage, Ltd	2 loads manure and hauling ashes,	"	22 50	
Prince Rupert Feed Co	Seeds,	"	7 40	
Thompson Hdwre Co, Ld	Agra hydrates, netting, etc.,	"	7 60	
Tite, Geo D	Basket frame and hooks for grsss-cutter,	"	4 75	
Van Gastel, E	Garden-work, 640 hours @ 45c., plants and manure,	"	306 45	
Viereck, J G	Lumber, brackets, varnish, etc.,	"	101 05	
Beattie, G D	Seeds,	Queen Charlotte City	4 30	
Cochrane, D	Hardware,	"	3 65	
Gerard, E	Ploughing and harrowing,	"	5 00	
Richardson, A	Work on garden and grounds, 2 days @ $4,	"	8 00	
Cowan Supply Co	Grass-seed,	Quesnel	1 00	
Bourne Bros	Seed,	Revelstoke	2 00	
Sturdy Hardware Co	1 lawn-mower, etc., and express,	"	16 15	
Lawrence Hdwre Co, Ltd	Gate-valve and cap,	"	5 20	
Hoods, Ltd	51 lb. grass-seed,	South Fort George	2 50	
Northern Lumber & Mercantile Co, Ltd	Lawn-mower and express,	"	7 75	
Brand & Co, Jas	Bulbs, shrubs and pots, etc.,	Vancouver	185 80	
Cornish & Cooper	Sashes,	"	8 75	
Cunningham's, Ltd	Hardware, etc.,	"	7 00	
Dumond, Mark	Hose, mower, spades, etc.,	"	43 90	
Evans, Coleman & Evans	Sand and cartage,	"	6 80	
Flett, Ltd, J A	Mower and pails,	"	12 40	
Gunn, J G	Nails,	"	40	
Martin, Finlayson & Mathers, Ltd	Turf-edger and broom,	"	2 00	
McArthur & Co, Ltd, W T	Clamps,	"	60	
Moffatt, Barney	Removing ball from flagstaff, etc.,	"	132 00	
O'Brien, J	Painting flag-pole,	"	27 13	
Pacific Box Co, Ltd	Seed-flats,	"	6 00	
Public Transfer	Cartage on flowers, boxes and plants,	"	8 00	
Ritchie Bros & Co	Bulbs, flower-pots, seeds, etc.,	"	154 35	
	Carried forward			42,184 15

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			42,184 15
	XII.—PUBLIC WORKS.—*Continued.*			
	Works and Buildings.—*Continued.*			
	Vote No. 128.—Improvement of Government Grounds throughout the Province.—Concluded.			
Ritchie Contracting & Supply Co, Ltd	Sand,	Vancouver	9 40	
Robertson & Hackett	Lumber and cartage,	"	15 00	
Simson-Balkwill Co, Ltd.	Russian hemp and brass nuts,	"	16 40	
Sinker, John	12 loads manure,	"	30 00	
Tyrrell, W H T	Gardener, 6 months @ $100.00,	"	600 00	
Wass, H	do 153 days 2.50,	"	382 50	
Tyrrell, W H T	do 3 m. and 11 d. 100.00,	"	340 00	
Wass, H	do 147 days 2 50,	"	367 50	
Wood, Vallance & Leggat, Ltd	Post-hole spoons,	"	90	
Hall, Wm	3 cement tie-posts and 4 loads soil,	Vernon	16 00	
Hudson's Bay Co	Salt,	"	1 35	
Quain, T	Attending to grounds, 209 days @ $2.50, and 11 days @ $2.16,	Vernon	546 26	
Smith Lbr Co, Ltd, S C	2 posts,	Vernon	1 15	
Vernon Carriage Works	Sharpening lawn-mower,	"	2 50	
Vernon Hdwre Co, Ltd	Hose, sprinklers, hinges etc.,	"	27 75	
Wilcox & Hall	2 grass-catchers,	"	4 00	
Hickman-Tye Hdwre Co.	Hoe and rake,	Victoria	1 30	
Creighton, D J	Hose,	Yale	11 50	
				4,098 51
	Vote No. 130.—King Edward Sanatorium, Tranquille.			
King Edward Sanatorium	Grant in aid of erecting Sanatorium			10,000 00
	Vote No. 131.—Mental Hospital, Essondale.			
	GENERAL REPAIRS.			
Anderson & Lusby	Bolts, nails, steel, etc		72 67	
Belyea & Co, Ltd	Rent of dray		16 00	
B C Refining Co, Ltd	Asphaltum		4 25	
B C Transport Co	Cement and sacks		44 80	
Burnett Sawmill Co, Ld.	Lumber, shingles, etc		575 95	
Canadian Pacific Ry Co	Rental of Essondale Siding, repairing track, etc		62 78	
Corp City of N Westm'r.	Plumbing material, fittings, and labour		200 23	
Crabb, R S	Poles for high-tension line		51 00	
Crane & Co	Gate-valve		12 35	
Galbraith & Son	Lumber		6 40	
Gilley Bros	Sewer-pipe, gully-traps, etc		46 40	
The Gurney Foundry Co	Fremont radiator feed-end sections, etc		9 56	
Harrison & Co	Engineer's target-rod		17 50	
Heaps Engineering Co	Making 2 cut-gears		97 50	
Kirk, H T	Nails, turpentine, stain, white lead, etc		98 38	
Lipsett, Edward	5 yards duck, etc		14 80	
Mahony & Gifford	Galvanized pipe, hardware, steam-radiators, valves, etc		623 88	
McLennan, McFeely & Co	Flues for bake-oven, etc		61 61	
McMurphy, J P	Toilet-seat		3 50	
Northern Electric Co, Ld	Porcelain tubes, cable, Wacco wire, etc		185 27	
Ramsay & Son Co, A	White lead, raw oil, turpentine, etc		370 69	
Trapp & Co, Ltd, T J	Nails, steam-hose, drills, steel, etc		343 91	
Vancouver Gas Co, Ltd	Steel pipe		717 80	
Webb & Gifford	Iron plates, making frames and covers, smoke-stack, etc		160 22	
Westminster Iron Works	Wire screens for dumb-waiter shaft		75 00	
		Total, $3,872.45		
	GRADING.			
B C Refining Co, Ltd	Fuel-oil		47 40	
Le Brun, P	Pipe and tile drain machine, etc		225 00	
Trapp & Co, Ltd, T J	Machine-oil, etc		8 60	
Martin, S B	Engineer	12 months @ $100	1,200 00	
Moffatt, I	Teamster	12 " 40	480 00	
Fraser, W	do	12 " 40	480 00	
		Total, $2,441		
	FURNITURE.			
Alaska B C Bedding Co.	Special mattresses, bed-ticks, fire-hose, iron beds, chairs, etc		1,996 65	
Anderson & Lusby	Installing boiler, cement, temperature-regulators, fire-brick, automatic stoker, boiler, etc		7,579 25	
Turnbull, George	Making valuation of buildings, etc		16 20	
		Total, $9,592.10		15,905 55
	Carried forward			72,188 21

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	72,188 21
	XII.—PUBLIC WORKS.—*Continued.*		
	Works and Buildings.—*Continued.*		
	Vote No. 132.—Nursery, Essondale.		
Anderson & Lusby	Shack-spikes, stumping-powder, nails, etc.	405 49	
Brunette Saw Mill Co, Ld	Lumber, plough-steel, wire rope	552 31	
Bryson & Son	Axe, stone, bolt-cutter, etc.	16 50	
Canadian Western Lumber Co, Ltd	Lumber	234 53	
Columbia Block & Tool Co	Choker-hooks, link and swivel, block, etc.	41 51	
Ellis & Co, H M	Choker-wire, cartage and freight	43 34	
Kirk, H T	Wrench and wire nails, red lead, etc.	16 90	
Owens, T	Choker-hooks, links, blocks, etc.	131 50	
Ramsay & Son Co, A	Paint and litharge	11 50	
Scott, Mrs L R	3-horse team and man.....24 days @ $7.50; 112 days @ $7.25; 8½ days @ $6	1,042 98	
SS "Stranger" (Capt W Robson)	Towage of donkey-engine	15 00	
Trapp & Co, Ltd, T J	Fuse, stumping-powder, wire nails, etc.	1,722 84	
Vane Engineering Works	Friction-pin, piston, etc.	37 45	
Webb & Gifford	Sundry repairs to donkey-engine	235 46	
Young, H	Canoe	8 00	
Caswell, T W	Services as extra man on team, plough, etc. 66½ days @ $ 2.75	182 89	
Cunningham, W	do Brushman 2 mos. 29 d. 40	118 45	
Davis, T	do Engineer 5 " 4 d. 60	308 00	
Kinlin, J	do extra man on team 24 days @ $2.50; 54 days 2.75	208 50	
McGougar, J	do Mason 12 months 50	600 00	
McLean, J D	do Attendant 7 " 50	350 00	
Murphy, J M	do " 8 " 22 d. 45	391 90	
Read, H	do " 3 " 45	135 00	
Smith, C	do Blacksmith 5 months @ $45; 5 " 50	475 00	
Wallace, W	do Powderman 12 " 65	780 00	
Wilcox, H W	do Mattress-maker 10 " 4 d. 60	608 00	
			8,673 05
	Vote No. 133.—Colony Farm, Essondale.		
Anderson & Lusby	Screws, bolts, nails, glass, etc.	153 22	
Brunette Saw Mills Co, Ld	Lumber	62 74	
B C Electric Ry Co, Ltd.	Freightage and erecting poles	86 27	
B C Refining Co, Ltd	Asphaltum	4 41	
Can Fairbanks-Morse Co.	Induction-motor, air-compressor, etc.	183 75	
Canadian Western Lumber Co, Ltd.	Lumber	351 97	
Chicago Rawhide Mfg Co	Rawhide pinion	4 55	
Cunningham, A	Cutting brush on dyke 7½ days @ $2.50	18 75	
Cunningham Hdwre Co.	Barrel coal-tar	6 00	
Heaps Engineering Co, Ld	Cable box and cover	12 50	
Hyslop Hardware Co	White lead, oil, nails, etc.	116 25	
Kirk, H T	Nails	12 30	
Mahony & Gifford	Plumbing supplies	81 12	
Northern Electric Co, Ld	Wire, cable, etc	202 04	
Pike, J W	Constructing and clearing dykes	3,150 00	
Ramsay & Co, Ltd, A	Paint, brushes, etc.	76 80	
Trapp & Co, Ltd, T J	Wire fence, etc.	437 75	
Webb & Gifford	Repairing pumps, locks, etc	86 58	
			5,047 00
	Vote No. 134.—Mental Hospital, New Westminster.		
Alaska B C Bedding Co.	40 mattresses	336 00	
Anderson & Lusby	Black pipe, gate-valves, etc.	212 13	
Andrew & MacDonald	Covering chairs and lounges	46 00	
Balfour, Guthrie & Co	Steel, etc	25 24	
Belyea & Co, Ltd	Garment-press, freight, etc.	104 49	
Brock, Ltd, S	Dampening-press	175 00	
Brookes Woodwrkg Co, J	Sash, doors, etc	84 15	
Brunette Saw Mill Co, Ld	Lumber, shingles, etc	1,025 12	
Corpn City of N Westm'r	Pipe, elbows, lead, etc.	36 85	
Fleck Bros, Ltd	Asbestos gaskets	6 98	
Fyfe Smith Co, Ltd, J	Maple flooring, etc.	514 39	
Galbraith & Sons	Sash, doors, etc	122 30	
Gilley Bros, Ltd	Gravel, cement, bricks, etc.	316 92	
Greer, A B	Roofing-paint	25 00	
Heaps Engineering Co	Deane steam-pump	33 60	
Laundry Supply Co	Garment-press	150 00	
Mahony & Gifford	Reroofing, work in lavatories, material, labour, etc.	3,100 33	
Merchants, Ltd	Filing-cabinets	38 75	
Metal Products Co	Brass hand-rail, steel casements, etc.	132 90	
McLary Manfg Co	Food-truck, range, smoke-pipe, etc.	902 00	
	Carried forward	.....	94,864 56

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		94,864 56
	XII.—PUBLIC WORKS.—*Continued.*		
	Works and Buildings.—*Continued.*		
	Vote No. 134.—Mental Hospital, New Westminster.—Concluded.		
O'Neil Co, Ltd, W N	Wall and floor-tiles, etc	691 00	
Ramsay & Son Co, Ld, A	Paint, white lead, etc	183 10	
Reliable Furniture Co	Mattresses, carpet, pillows, linoleum, etc	286 50	
Royal City Glass Co	Plate glass, etc	79 20	
Turnbull, George	Making valuation of buildings	15 00	
Van Machinery Depot, Ld	1 plunger for slacker	3 00	
Webb & Gifford	Overhauling potato-machine, material, etc	42 35	
Westminster Iron Works	Wire screen	18 00	
Whiteside, Edmonds & Whiteside	Piano	250 00	
			8,956 30
	Vote No. 135.—Provincial Government Buildings, London, England (Completion and Maintenance).		
Burr, Alfred	Commission, insurance, etc	6,556 73	
City of Westminster, Eng	General rate on No. 1 Regent Street	8,693 02	
Cubitt & Co, Wm	Interest on B.C. House Loan, £60,000	15,732 10	
Grand & Sutcliff	Oil for pump	4 73	
Holland, Hannen & Cubitt's, Ltd	Payments in respect of certificates issued by Architect	101,092 94	
Kekewich, Smith & Kaye	Legal services *re* B.C. House Loan and mortgage to the builders	2,192 25	
L & S E Packing Co	Various articles for use in B.C. House	3 96	
Rec'vr-Gen, London, Eng	Rent of site, 1 and 3 Regent Street	12,006 06	
Osler, Ltd, F & C	Electric-light fittings	3,232 38	
Story & Co	Furniture, carpet, etc	3,756 50	
Straker Bros, Ltd	Lift notices	2 79	
Sun Insurance Co	Premium	13 64	
Sutherland & Co, L	Electric fittings, etc	83 64	
Waygood-Otis	Inspection of lifts, etc	32 13	
Williams, G A	10 shop-blinds	480 15	
			153,883 05
	Vote No. 136.—Provincial Normal School, Vancouver (Maintenance).		
Anderson, E A	Cement base around bath-room, repairing wall and steps	18 25	
Birch, S J	Extension table	11 00	
Brand & Co, J	Spray, hoe, grass-seed, etc	19 50	
B C Electric Ry Co, Ltd	Electric light and power	242 36	
B C Telephone Co, Ltd	Exchange service, $60; long-distance calls, $6.50	66 50	
B C Window Cleaning Co	Cleaning windows, etc	34 00	
Burns Drug Co, Ltd	Towels, soap, sponges, etc	411 54	
City Chimney Sweep Co	Painting flag-pole, cleaning furnace chimneys, etc	64 50	
City Roofing Co	Repairs to Normal School, roof over gymnasium	136 50	
Cornish & Cooper	Hotbed sash, etc	25 70	
Crawford, Arthur	Work on Normal grounds	63 00	
Cunningham's, Ltd	Rake, grass-shears, etc	4 15	
Evans, Coleman & Evans, Ltd	Coal, lime, etc	59 85	
Gordon Drysdale, Ltd	Napkins, etc	4 65	
Gunn, J G	Dustbane, door-mats, mowing-machine, etc	202 71	
Gutta Percha & Rubb Co	Fire-hose, etc	235 20	
Laidlaw, J E	9 dry batteries and labour	6 30	
Laidlaw, J E	Electrical fittings	123 05	
O'Neill Co, Ltd, W N	Blackboards, etc	16 84	
Lewis & Sills, Ltd	Crowbar, mattock, etc	8 25	
Lipsett, Edward	Labour and lumber for repairing awning, etc	34 50	
Middlesboro Collieries, Ld	Coal	956 65	
Pioneer Carriage & Shoeing Co	Hose-reel, etc	50 75	
Ritchie Bros & Co	Seeds, flower-pots, etc	39 40	
Ritchie Contracting & Supply Co	Lime	2 25	
Robertson & Hackett	Lumber	9 10	
Scrim Lbr Co, Ltd, W G	Drain-board	17 00	
Shone, Thos H	Labour and material for bridge-walls	35 35	
Sinker, John	Black earth and manure	92 50	
Spencer, Ltd, D	White oilcloth	9 00	
Vanc City Water Works	Water rates, hydrant, etc	134 76	
Vancouver Gas Co, Ltd	Gas, etc	83 08	
Vanc Engineering Works	Steel dogs, and hydrant	8 75	
Vancouver Wood Yard	Clippings	14 25	
Weeks & Co	Plumbing material and labour	138 20	
			3,379 39
	Carried forward		252,127 00

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	252,127 00
	XII.—PUBLIC WORKS.—*Continued.*			
	Works and Buildings.—*Continued.*			
	Vote No. 137.—Provincial Normal School, Victoria (Maintenance).			
Armstrong Bros	New gear-wheel		7 40	
B C Electric Ry Co, Ltd.	Electric light and power		372 65	
British-Amer Paint Co, Ltd	Floor-paint		98 40	
Drake Hardware Co, Ltd	Mops, brushes, etc		10 20	
Gordon Drysdale, Ltd.	Cheese-cloth		6 00	
Evans, Coleman & Evans	Asbestos, cement, lime, etc		24 60	
Fraser & Co, Ltd, W S	Gasolene-torch, tube-cleaner, etc		12 55	
Hafer Machine Co, Ltd	Post bearings, pulleys, etc		28 10	
Hawkins & Hayward	Carbon-brushes, etc		14 80	
Hickman-Tye Hdwre Co.	Gas-cocks and spindles		4 20	
Imperial Oil Co, Ltd	Gasolene		47 31	
Kirkham & Co, Ltd, H O.	Dutch cleanser and Bon Ami		8 90	
Lemon, Gonnason Co, Ld	Lumber		4 19	
MacKay & Gillespie, Ltd.	Wood and coal		1,456 63	
Melrose Co, Ltd.	Glass, putty, etc		11 25	
McQuade & Sons, Ltd, P.	Oil, grease, waste, etc		48 88	
New Method Laundry	Laundry		32 21	
Pendray & Sons, Ltd, W J	Liquid soap and washing-powder		39 95	
Pike, A	Pointing stonework, etc	40 days @ $6; material, $26.47	266 47	
Pike, R	do	20 days @ $5	100 00	
Powell & Sons, G	Coal-oil, rubber gasket tubing, etc		125 10	
Prior & Co, Ltd, E G	Nails, extension ladder		14 97	
Corp District of Saanich, Waterworks Dept.	Water		50 57	
Spencer, Ltd, D.	Cheese-cloth, rug, step-ladder, mops, etc		46 70	
Staneland Co, Ltd	Black japan, paint, etc		18 95	
Victoria Water Works	Water		29 70	
Victoria Furniture Co, Ld	Towels and toilet-paper		63 75	
Weiler Bros, Ltd	Broom, knives, and forks, etc		92 95	
				3,037 38
	Vote No. 138.—Public Schools throughout the Province.			
Board of School Trustees	Part payment, Government grant,	Alexandria	31 00	
do	Government grant,	Aspen Grove	150 00	
do	Freight on desks,	Beaver Lake	1 50	
do	Government grant,	Begbie	300 00	
Tarbell & Son, C B	Furnace,	Bevan	255 00	
Board of School Trustees	Government grant,	Big Bar	150 00	
do	Government grants,	Blueberry	500 00	
Thomson Stat Co, Ltd	Freight on desks,	Bradner	1 57	
Olund, Nels	Labour and material *re* construction,	"	322 50	
Board of School Trustees	Part payment, Government grants,	Bull River Bridge	108 25	
do	Government grant,	Canford	100 00	
do	do	Canim Lake	175 00	
do	Part payment, Government grants,	Castledale	125 00	
Bailey, J H	Furnace,	Chase River School	216 75	
Board of School Trustees	Part payment, Government grant,	Chief Lake	7 90	
do	do	Clearwater	4 96	
do	Government grant,	Clo-oose	75 00	
Ferguson, A E	Contract for furnace and improvements,	Coal Creek	580 00	
Board of School Trustees	Part payment, Government grant,	Criss Creek	7 02	
Jones, Ira C	Labour and material *re* construction,	Dunach	2,121 00	
Carson, Thos	do "	Essondale	1,487 50	
Board of School Trustees	Government grant,	Extension	11 00	
Young, L C	Labour and material *re* construction,	"	2,724 65	
Board of School Trustees	Government grant,	Fish Lake	100 00	
do	do	Fort George	250 00	
Giddens, Harry	Making and fitting sashes, etc., and repairing,	Fruitlands	184 00	
Board of School Trustees	Part payment, Government grant,	Ganges	39 05	
do	Government grant,	Gillis Bay	100 00	
do	do	Glencoe	151 69	
Carson, Thos	Labour and material *re* construction, $1,063.50; extras, $50.80;	Granby Bay	1,114 30	
Robertson-Godson Co	Closet combinations, etc.,	Granby Bay	259 05	
Board of School Trustees	Government grant,	Greenwood	800 00	
do	Part payment, Government grants,	Half Moon Bay	204 85	
do	Government grant,	Hall's Landing	300 00	
B A Paint Co	Balance of claim against contractor,	Harewood	24 10	
Brown, J S	do "	"	69 35	
Evans, Coleman & Evans	do "	"	14 42	
Hayward & Dods	do "	"	74 47	
Hoskins, E A	do "	"	1 52	
Ideal Plumbing & Htg Co	Repairs on hot-water system,	"	23 00	
Johnston Heating Co	Balance of claim against contractor,	"	63 00	
Johnston & Co, A R	do "	"	15 38	
	Carried forward		.....	255,164 38

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	255,164 38
	XII.—PUBLIC WORKS.—*Continued.*			
	Works and Buildings.—*Continued.*			
	Vote No. 138.—Public Schools throughout the Province.—Continued.			
Morris & Co, S M	Balance of claim against contractor,	Harewood	23 65	
McCape, Mrs P	do "	"	17 96	
McCape, Mrs P	do "	"	21 40	
McLennan & McFeely Co	do "	"	49 76	
Nanaimo Marble Works	do "	"	10 31	
Nan Pressed Brick & T Co	do "	"	77 35	
Nan Sheet Metal Works	do "	"	17 50	
New Ladysmith Lbr Co	do "	"	211 52	
Planta, A E	do "	"	11 41	
Sherborne, F T	Balance of holdback,	"	89 18	
Young, H	Balance of claim against contractor,	"	75 77	
Whitta Bros	do "	"	33 46	
Wilson, Charles	Tightening ironwork, shingles, etc., and time,	"	157 17	
Board of School Trustees	Part payment, Government grant,	Heffley Creek	165 22	
do	Government grant,	Hilborn	200 00	
Kent, Geo T	Repairs, etc., old building,	Hill	524 00	
McWilliam, Geo	Labour and material *re* construction,	Hope	823 50	
Board of School Trustees	Government grant,	James Island	900 00	
do	do	Lac du Bois	175 00	
McWilliam, Geo	Labour and material *re* construction, $4,420; extras, $238;	Ladysmith	4,658 00	
Board of School Trustees	Part payment, Government grant,	Lower Chase Creek	144 67	
Dixon & Murray	Making, painting, and glazing lights, etc.,	Lower Squamish School	92 35	
Munro, A	Hauling,	"	8 00	
Fraser, J D	Hardware,	"	2 45	
McArthur & Co, Ld, W T	Pipe, etc., and plumber's time,	"	167 67	
Board of School Trustees	Government grant,	Lucerne	350 00	
Reilly & Co, I R	Labour and material *re* construction,	Malakwa	436 25	
McWilliam, Geo	do "	Maple Ridge	4,775 00	
McWilliam, Geo	Extras,	"	454 00	
Jones, Ira C	Labour and material *re* construction,	Mara	5,814 00	
Board of School Trustees	Part payment, Government grant,	Meadowbrook	142 10	
do	Government grant,	Meadow Valley	175 00	
Bronger & Flynn	Labour and material *re* construction,	McBride	3,531 33	
McDougall, A E	do " $1,875.10; extras, $50;	Midway	1,925 10	
Beck, Carl	do "	Merritt	4,033 76	
Pay-list	Labour *re* foundation,	Michel	26 80	
Board of School Trustees	Government grant,	Mountain	210 00	
do	do	Nakusp	700 00	
do	do	Nelson	20,000 00	
Sloan & Harrison	Labour and material *re* construction, $2,040; extras,	$14.40; Nelson	2,054 40	
Board of School Trustees	Part payment, Government grant,	Nine-mile	199 93	
do	Government grant,	North Star	1,500 00	
Moore, Ernest A	Labour and material *re* construction,	Notch Hill	353 75	
Board of School Trustees	Government grant,	Okeover Arm	25 00	
do	do	Olsen Lake	75 00	
Finley, M T	Labour and material *re* construction,	Otter School	106 25	
Parker & Grace	Alterations to toilets,	Otter Point	95 00	
Jones, Ira C	Labour and material *re* construction, $6,341; extras,	$91; Oyama	6,432 00	
Board of School Trustees	Government grant,	Parson	200 00	
do	Part payment, Government grant,	Pemberton Meadows	6 40	
do	do "	Pinantan	170 73	
Layfield, James	Labour and material *re* construction,	Poplar Grove	401 25	
Mason & Henderson	do "	Prince George	2,824 60	
Bronger & Flynn	do "	"	1,155 00	
Board of School Trustees	Government grant,	Robins Range	150 00	
do	do	Round Top	100 00	
Williamson, John	Labour and material *re* construction,	Royston	337 50	
Board of School Trustees	Government grant,	Saanich Schools	700 00	
do	do	Sandwick	36 65	
McWilliam, George	Labour and material *re* construction,	Silver Creek	416 25	
Carson, Thomas	do " $2,470; extras, $255.20;	Silverdale	2,725 20	
Board of School Trustees	Government grant,	Silverton	600 00	
McWilliam, George	Labour and material *re* construction,	"	3,825 00	
Board of School Trustees	Government grant,	Sisters Creek	150 00	
Smith & Eggleston	Labour and material, *re* construction,	Smithers	8,614 15	
Parker & Grace	do " $2,425; extras, $52;	Sooke	2,477 00	
Board of School Trustees	Government grant,	"	30 00	
do	do	South Fort George	225 00	
Crowell, Thos E	Labour and material *re* construction,	South Okanagan	5,950 00	
Board of School Trustees	Part payment, Government grant,	Squam Bay	47 63	
do	Government grant,	Squirrel Cove	100 00	
do	Part payment, Government grant,	St. Elmo	36 35	
do	Government grant,	Swift Creek	275 00	
do	do	Trail	7,500 00	
do	do	Turtle Valley	93 52	
do	do	Upper Trout Creek	180 00	
McWilliam, Geo	Labour and material, *re* construction, $945; extras, $339.55;	Union Bay	1,284 55	
	Carried forward		.....	255,164 38

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	255,164 38
	XII.—PUBLIC WORKS.—*Continued.*		
	Works and Buildings.—*Continued.*		
	***Vote No. 138.—Public Schools throughout the Province.*—Concluded.**		
Board of School Trustees	Government grant, Vananda	50 00	
Gillett, Wm G	Labour and material *re* construction, Vanderhoof	506 70	
McLean, Archibald	do $1,047.50; extras, $540; putting sashes, etc., $220; Waldo	1,807 50	
Board of School Trustees	Government grant, Wanklyn	100 00	
do	do Wapta	450 00	
do	do Watmore	50 00	
do	do Westview	250 00	
do	do Whaletown	200 08	
do	do White Lake	175 00	
Calwell, H	Hauling	7 60	
Clarke & Stuart Co, Ltd	Freight on school-desks, $386.83; contract, school-desks, $4,091.50	4,478 33	
Thomson Stat Co, Ltd	do "	73 72	
Blackadder, H	Services as Inspector, Capilano and Lower Squamish Schools, 5 days @ $5; expenses, $9.85	34 85	
Bell, James	Services as Inspector, Mara School, 19 visits @ $5	95 00	
Benedick, O	do " Smithers School	5 00	
Hancock, A C	do Clerk of Works, sundry schools, 118 days @ $5; expenses, $46.60	636 60	
Maxwell, Wm	do " " 24 " 5; " 43.85	163 85	
McRae, James	Expenses as Inspector, Smithers School	15 00	
Rowe, Philip	Services as Clerk of Works, sundry schools, 80 days @ $5; expenses, $160.15	560 15	
Simms, J G	Travelling expenses *re* Okanagan School-site	2 50	
Turnbull, Geo	Services as Clerk of Works, sundry schools, 57 days @ $5; expenses, $218.05	503 05	
Beck, Alexander	Laying water service, etc, 17 days @ $4	68 00	
Thompson, J C	Services as Clerk of Works, South Okanagan School, 22 visits $5	110 00	
Williscroft, W A	Travelling expenses *re* Smithers School	13 00	
		126,283 46	
	Cr. Forfeited deposit *re* Smithers School contract	1,536 00	
			124,747 46
	Vote No. 139.—Repairs to Buildings, Furniture, Fuel, Light, etc., Government House, Victoria (including Upkeep of Garden).		
Albion Stove Works, Ltd	Inspecting range and sundry repairs	17 80	
Brackman-Ker Milling Co	Potatoes and meal	36 00	
British America Paint Co	Lime-sulphur solution	7 10	
B C Electric Ry Co, Ltd	Electric light	753 96	
B C Land & Investment Agency, Ltd	Rent of Section 75, Fairfield estate	48 50	
Brown Bros & Co, Ltd	Twine and bamboo canes	28 90	
Calwell, H	Haulage	6 05	
Campbell, D E	Sulphur	75	
Carter Electric Co	Electrical supplies	42 55	
Carter & Co, J	Seeds	26 50	
Colonist Ptg & Pub Co	Subscriptions	12 00	
Cookson Plumbing Co	Repairs to water-heater	5 25	
Corp City of Victoria	Taxes	508 22	
Crocker, J M	Services *re* plastering, tiling, and material	21 60	
Dominion Express Co	Expressage	16 92	
Drake Hardware Co, Ltd	Nails, paint, etc	15 28	
Ewart, A	Services as nightwatchman, 15 days @ $50. per month	24 78	
Evans, Coleman & Evans	Lime and cement	5 00	
Exton & Howell	Lime	8 00	
Gorham Fire Apparatus Co	Fire-escapes and cable	65 59	
Gt North'n Telegraph Co	Telegrams	1 77	
Green, J	Repairs to safe	6 50	
Hammond, J	Material and labour on alterations to Secretary's house	127 10	
Hawkins & Hayward	Wiring grounds and summer house and electrical supplies	308 25	
H M Customs	Duty on dahlias, etc	16 30	
Hickman-Tye Hdwre Co	Garden-hose, plumbing material, and hardware	140 42	
Isl'd Window Cleaning Co	Cleaning windows	6 50	
Jeune & Bro, Ltd, F	Flags and ropes	23 20	
Kenning, Dr A W	Medical attendance	20 00	
Kirk & Co, Ltd	Coal and wood	1,142 56	
Luxton, A P	Legal services	15 00	
Leigh & Sons, J	Shingles, etc	18 26	
Lemon, Gonnason Co, Ltd	Shingles and lumber	30 88	
Mackay & Gillespie, Ltd	Coal and wood	309 13	
MacLean Pub Co, The	Subscription	3 00	
Martin, H	Cartage	6 00	
McTavish Bros	Customs brokerage	25 25	
Mellor Bros, Ltd	Lead light	6 50	
Morrison, J	Repairs to fire-dogs	5 50	
Melrose Co, Ltd., The	Paints, varnish, glass, painting, kalsomining, etc	122 19	
Neal, W	Cleaning flues, etc	18 00	
	Carried forward	.....	379,911 84

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			379,911 84
	XII.—PUBLIC WORKS.—*Continued.*			
	Works and Buildings.—*Continued.*			
	Vote No. 139.—Repairs to Buildings, Furniture, Fuel, Light, etc., Govt. House, Victoria (including Upkeep of Garden).—Concluded.			
News-Advertiser, The	Subscription		3 00	
Newton & Greer Co, Ltd.	Tar		31 50	
O'Neil Co, Ltd, Wm N	Repairing tiling, etc		22 40	
Pacific Grove Dahlia Co.	Dahlia-roots		9 68	
Painter & Son, J E	Wood		13 00	
Powell & Son, Geo	Refrigerator, nails, pick-handles, etc		48 30	
Prior & Co, Ltd, E G	Steam-pipe, sprinkler, screws, etc		115 89	
Producer's Rock & Gravel Co, Ltd	Gravel and cement		166 05	
Quadra Greenhouse Co.	Bulbs, plants, spray, etc		107 35	
Richards, J	Team-work and manure		186 25	
Riter-Hamilton, Mrs M.	Portraits		636 00	
Savory, W J	Pots, etc		97 40	
Sheret, A	Plumbing supplies		36 05	
Shortt, Hill & Duncan, Ld	Clock		91 38	
Silver & Brynjolfson	Sewer and cement work		182 85	
Smith, J	Collecting garbage		81 00	
Sommer & Sons, Ltd, J.	Oil paintings and frames		100 50	
Spencer, Ltd, D	Curtains, blinds, etc		73 30	
Sutton & Sons	Seeds		49 43	
Tite, C H	Services as Painter		12 62	
Trousse, A R	Road Superintendent		38 25	
Victoria Book & Stat Co.	Subscriptions		9 35	
Victoria Daily Times	do		6 00	
Victoria Furniture Co, Ld	Repairs to window-shades		1 00	
Victoria Gas Co, Ltd	2 tons coke		13 00	
Victoria Mach Depot, Ltd	Road-oil, etc		40 70	
Victoria Water Works	Water		281 19	
Waites & Knapton	Making keys and repairs		4 75	
Webb, F C	Removing ball from flagstaff, etc		7 50	
Weiler Bros, Ltd	Rugs, shades, crockery, etc		552 15	
Shiner, J	Services as Head Gardener	12 months @ $80	960 00	
Pay-lists	Carpenters		516 41	
do	Gardeners		7,545 00	
do	Labourers on drive		256 93	
do	Nightwatchmen		608 70	
				16,907 94
	Vote No. 140.—Repairs to Government Buildings throughout the Province.			
Alberni Trading Stores	Bolts and fasteners,	Alberni	90	
Forrest, G	Repairs to window,	"	2 00	
Milligan, R	Painting and repairing roofs, etc.,	"	187 74	
Paine, E R	Nails, paint, brushes, etc.,	"	55 05	
Wescombe, R	Repairing and sweeping chimneys, etc.,	"	10 00	
Whyte, E M	Repairing electric wire and material,	"	2 20	
Dumond, M	Leather cup washers,	Ashcroft	85	
Bidding, G	Services, lifting & moving building, 15 hours @ 50c.,	Atlin	7 50	
Gilmore, G E	Repairs to door, lock, etc.,	"	9 00	
Kershaw, J B	Nails, glue, roofing, grates, etc.,	"	116 60	
Kirkland, T	Services *re* bricking in furnace,	"	14 00	
Litle, F E	Setting up warehouse, glazing, removing storm-sash,	"	75 25	
Schulz, L	Moving building,	"	12 50	
Simpson, G	Moving warehouse,	"	5 00	
Smith, S	Putting up storm-windows,	"	1 50	
Buchanan, R	Shovelling snow, etc.,	Barkerville	2 50	
Harper, F	Livery *re* shovelling snow,	"	5 00	
Roddick, J P	Shovelling snow,	"	3 50	
Stevens, J	do	"	10 00	
Wallace, A	do	"	10 00	
Ratzman, C F	Repairs to toilet, etc., Court-house,	Chilliwack	91 15	
Pay-list	Labour *re* repairs to dam,	Clinton	32 90	
Barton, Thos	do	"	3 25	
Botterill, M P	Lumber,	"	5 80	
Davis, J A	Erecting chimney and sundry repairs,	"	258 35	
Fraser, R	Wire netting, nails, padlocks, etc.,	"	16 38	
Hadley, W H	Services *re* repairs to Government Office,	"	2 50	
Horan, H P	Installing gasolene-lighting system,	"	50 00	
Rush, J H	Services, repairing dam,	"	6 50	
Jones & Dorris	Repairs to awnings, shades, etc., making cement floor,	Cranbrook	47 60	
McBride, J D	Plumbing supplies,	"	8 23	
Parks & Co, F	Hardware supplies,	"	2 50	
Patmore Bros	Repairs to closet, etc.,	"	11 45	
Burden & Watson	Lumber,	Crawford Bay	6 98	
Anderson & Son, R B	Repairs to lavatory,	Duncan	5 00	
	Carried forward			396,819 78

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			396,819 78
	XII.—PUBLIC WORKS.—*Continued.*			
	Works and Buildings.—*Continued.*			
	Vote No. 140.—Repairs to Government Buildings throughout the Province.—Continued.			
Brown, O C	Lumber, painting, nails,	Duncan	21 50	
Robinson, W S	Wiring Court-house and material,	"	51 00	
Gwatkin, F	Repairs to water-pipes,	Fairview	7 50	
Brooks, E	Repairs to windows and gate, taking down flag-pole,	Fernie	56 00	
Duthie Co, The	Glass, glazing, etc.,	"	2 60	
Digby, C J	Putting up storm sash and porch,	"	2 50	
Ferguson, A E	Cleaning closets, etc.,	"	1 50	
Jackson, W	Connecting sewer,	"	10 00	
McDonald, L E	1 cast-steel poker,	"	4 40	
Quail, J D	Leather strip, tacks, etc.,	"	3 00	
Trites-Wood Co, Ld, The	Lights, shades, rollers, etc.,	"	9 20	
West Can Wholesale Co.	Sack asbestos,	"	2 25	
Tooker, W A	Installing pump and cleaning well,	Fort Fraser	27 00	
White, W W	Labour, putting on cotton, paper, etc., and materials,	"	86 35	
Columbia River Lbr Co.	Lumber, lamps, etc.,	Golden	11 35	
Golden Light, Water & Power Co	Wiring vault and installing brackets,	"	20 75	
Henderson, J	Pipe, etc.,	"	1 50	
Parson, Ltd, H G	Globes, water-tank, etc.,	"	18 75	
Rolston, D R	Nails, paint-brush, files,	"	1 45	
Warren, C A	Paint, batteries, motor-oil, etc.,	"	12 15	
Bonthron, W	Repairs to door,	Grand Forks	1 00	
Kraus, J F	Repairs to steam-boiler, covering furnace-pipe, etc.,	"	19 75	
Gulley & Company, T M.	Oil and varnish,	Greenwood	3 10	
Gunderson, T O	Shingling, painting, concreting, etc.,	"	737 00	
Halcrow, R W	Plumbing,	"	50 60	
White, H L	Varnish and brush,	"	1 50	
White, J L	Turpentine,	"	90	
Cunningham & Son, Ld, R	Staples, paint, brush, oil,	Hazelton	1 80	
Neal, W	Painting,	"	3 75	
Sargent, Ltd, R S	Rope, nails, etc.,	"	3 85	
Stephenson & Crum	Repairs to toilet, gates, etc.,	"	107 33	
Blackburn & Pinchbeck.	Glazing, Land Registry Office,	Kamloops	17 00	
Darling & Co, F	Soap, thermostats,	"	36 00	
Giddens, H	Plumbing, Court-house,	"	5 00	
Johnston & Co	Repairs to boiler-house and verandah, Provincial Home,	"	226 20	
do	Building chimney and work on flagstaff, Court-house,	"	1,170 50	
do	Fixing steel shutters, Land Registry Office,	"	6 10	
Kamloops Plumb & H Co	Plumbing, Court-house,	"	27 65	
Macbeth, G	Repairs to lock, screen windows, etc., "	"	11 80	
Macbeth, G	Storm-sash, felt, etc., Land Registry Office,	"	61 50	
Marsh Bros	Electrical supplies, Court-house,	"	11 65	
Marsh Bros	do Land Registry Office,	"	17 50	
McGregor, A	Repairs to spring on door, Court-house,	"	2 25	
McKinnon Heat'g & P Co	Plumbing, "	"	109 20	
McKinnon Heat'g & P Co	Improvements of heating system, Land Registry Office,	"	2,508 00	
Archer, F E	Making septic tank,	Kaslo	7 90	
Byers, Giegerich, Green Co	Cement, etc.,	"	29 50	
Drennan, G B	Making septic tank,	"	109 45	
Riddell, J A	Fuse-plugs,	"	50	
Roberts, W J	Labour *re* cesspool,	"	7 50	
Strachan, J	Sand, gravel, and haulage,	"	18 50	
Simpson, S M	Repairs to windows,	Kelowna	90	
Duffy, J H	Plumbing,	Lillooet	4 00	
Merritt Plumbing & H Co	do	Merritt	9 40	
Pope (R E) & Small (J E) Plumbing Co	do	"	2 00	
Barsby, G	Repairing plaster, Court-house,	Nanaimo	61 75	
Billi, R	Changing retaining-wall, building concrete curbs, etc., Court-house,	Nanaimo	101 15	
Bradfort, J S	Painting, Court-house,	Nanaimo	1,333 00	
Hoskin, E A	Haulage, "	"	6 50	
Ideal Plumbing & H Co.	Repairs to plumbing, eaves-troughing, etc., and material, Court-house,	Nanaimo	262 20	
May, J	Carpentering, Court-house,	Nanaimo	36 00	
Nan Builders' Supply	Lumber, varnishing, etc. "	"	8 05	
Nan Electric Light Co.	Wiring and installing light-switch, etc., "	"	20 30	
Nanaimo Foundry, The.	Eye-beams and gratings, "	"	238 50	
New Ladysmith Lbr Co.	Lumber, "	"	22 38	
O'Brien, J	Painting flag-pole and material, "	"	20 00	
Pearson & Co, G S	Rope and swivel, "	"	7 85	
Randle Bros	Repairs to furnace and basin pipes, nails, putty, etc., Court-house,	Nanaimo	75 90	
Rowe, P	Services as Clerk of Works, Court-house,	Nanaimo	399 65	
Sampson, J	Sandpaper, nails, locks, etc., "	"	4 05	
Waddington, W	Painting, "	"	56 50	
Williamson, J	Carpentering and lumber, "	"	5 70	
Pay-lists	Carpenters and labourers, "	"	108 00	
	Carried forward			396,819 78

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		396,819 78
	XII.—PUBLIC WORKS.—*Continued.*		
	Works and Buildings.—*Continued.*		
	Vote No. 140.—Repairs to Government Buildings throughout the Province.—Continued.		
Ideal Plumbing & H Co	Plumbing, Mine-rescue Station, Nanaimo	43 65	
Rowe, P	Services as Clerk of Works, " "	20 00	
B C Plumbing & Htg Co	Repairing closets, radiators, etc., Court-house, Nelson	9 70	
Dancy, J	Putting on storm-doors, " "	2 45	
Doucette, E	Repairs to floor, shellac, varnish, etc., " "	10 50	
Matheson, J H	Repairs to lock, electrical supplies, " "	3 40	
Nelson Hardware Co	Kalsomine and brushes, " "	19 50	
Radcliffe, J	Cleaning chimneys, " "	3 00	
Waters & Co, T H	General repairs, " "	1,576 99	
B C Plumbing & Htg Co	Closets, basins, etc., Land Registry Office, "	200 00	
Douglas, J K	Kalsomining, painting, etc., " "	121 50	
Matheson, J H	Fixing lights, " "	1 00	
Radcliffe, J	Cleaning chimneys, " "	2 00	
Waters & Co, T H	Fitting window-sash, painting, rebuilding tops of chimneys, Land Registry Office, Nelson	170 00	
Wood, Vallance Hardware Co, Ltd	Felt weather-strip, Land Registry Office, Nelson	70	
McKinnon, D	Repairs to outbuildings, etc., New Denver	18 50	
Tuckett & Son, G	Furnishing and putting on lock, "	2 75	
Beck, A	Repairs to furnace, etc., Court-house, New Westminster	40 00	
Belyea & Co, Ltd	Haulage, shovels, saw-frames, nails, etc., " "	11 30	
Cunningham Hdwre Co	Nails and brads, " "	1 90	
Galbraith & Sons	Lumber, repairs to window, making scraper, " "	38 50	
Gilley Bros, Ltd	Gravel, sand, and cement, " "	120 44	
Harris & Co, Ltd, P E	Adjusting elevator-switch, etc., " "	4 05	
Hudson, H P	Staining, varnishings, painting, lettering, " "	19 00	
Mahony & Gifford	Plumbing repairs, " "	125 51	
Moulton, G	Electrical supplies, " "	38 05	
Peebles, P	Installing light, moving platforms, etc., " "	42 00	
Reliable Furniture Co	Awnings, " "	67 70	
Speck, G R	Repairs to lock and key, " "	95	
Spring & Sibley	Plumbing repairs, " "	16 81	
Trapp & Co, Ltd, T J	Hammers, trowel, etc., " "	5 30	
Turnbull, G	Services as Clerk of Works, supervising repairs, etc., Court-house, New Westm'r.	157 50	
Westminster Iron Works	Supplying and erecting fire-escapes, hardware, etc., " " "	471 30	
Wintemute, A B	Repairs to door, Court-house, New Westminster	2 50	
Mahony & Gifford	Plumbing, Land Registry Office, "	4 05	
Moulton, C	Electrical supplies, " "	12 67	
Reliable Furniture Co	Awnings, " "	33 00	
Spring & Sibley	Installing closet, " "	4 51	
Pay-lists	Labour, repairs to basement, Court-house, "	267 05	
Armstrong's Dept Store	Lock for well-house, Nicola	45	
Howse Co, Ltd, A E	Nails, water-glass, repairs to doors and locks, "	3 12	
Campbell, A	Sinking well, 150-mile House	100 00	
Cariboo Trading Co, Ltd	Paint, stain, glass, "	6 40	
King & Co, W R	Screen doors and fittings, Penticton	7 00	
Edge Co, A W	Staining, papering, painting, repairs to ceiling, Prince Rupert	588 90	
Crate, G	Repairs to door, "	1 00	
Fritz, The Handy Man	Repairs to door, etc., "	1 55	
Grant, W	Plumbing repairs, "	167 80	
Johnson, O H	Making and putting up shelves, "	22 50	
Kaien Hardware Co	Sandpaper, brads, nails, "	45	
Parkin & Ward Electric Co, Ltd	Electrical supplies and repairs, "	22 95	
Pony Express	Haulage, "	75	
Smith & Mallett	Plumbing repairs, "	10 95	
Steen, J G	Galvanized-iron roof and sundry repairs, "	137 35	
Thompson Hdwre Co, Ld	Brackets, felt, door-bolt, nails, "	6 80	
Viereck, J G	Building shelves and pigeon-holes and repair work, "	38 60	
Westholme Lbr Co, Ltd	Shelves and counter, "	2 75	
Meausette, H	Repairs to water-pipe, Princeton	1 00	
Thomas Bros	Grate for heater, "	3 00	
Cowan Supply Co	Night-latch and bolt, Quesnel	3 75	
Howison, J W, Estate of	Hasps, padlocks, installing chimneys and repairs, "	25 05	
Hudson's Bay Co	Padlock, hasp, "	1 00	
Abrahamson, O W	Repairs to steps, storm-sashes, ladder, etc., Revelstoke	265 35	
Lawrence Hdwre Co, Ld	Batteries, nails, fireclay, kegs, etc., "	8 75	
Pradolini, A	Repairs to boiler, "	5 95	
Miles, C J	Plumbing, Rossland	58 97	
Bronger & Flynn	Painting and sundry repairs, South Fort George	187 10	
Ft George Hardware Co	Repairs to gutters, urinal, etc., "	13 75	
Grierson, S	Steel tank, "	6 50	
Foster, Wm	Stove-pipe and dampers, Telegraph Creek	14 80	
Callbreath, J F	Lumber, "	7 58	
Hyland Estate, J	Nails, glass, etc., "	3 50	
Hudson's Bay Co	Stain, brush, lime, "	5 25	
	Carried forward		396,819 78

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	396,819 78
	XII.—PUBLIC WORKS.—*Continued.*		
	Works and Buildings.—*Continued.*		
	Vote No. 140.—Repairs to Government Buildings throughout the Province.—Continued.		
Lindsley, J	Repairs on water system, Trout Lake	6 00	
Woods, T	Repairs to steps, plumbing, windows, "	13 35	
B C Refining Co, Ltd	Machine and engine oil, Vancouver	30 20	
B C Marine, Ltd	Repairs to boiler, "	50 20	
Bogardus, Wickens, Ltd.	Glass and repairs, "	19 60	
Canadian Consolidated Rubber Co, Ltd	Electrician's gloves, "	3 70	
Canadian Fairbanks-Morse Co	Leather belting, etc., "	8 10	
City Chimney Sweep Co.	Cleaning chimneys, "	17 00	
City Roofing Co	Repairs to roof, painting, etc., "	135 00	
Cunningham's, Ltd	Screws, nails, benzene, paint, etc., "	30 50	
Cupit, H	Labour *re* brickwork, "	13 75	
Crane Co	Gland for valve, "	50	
Dixon & Murray	Lumber, "	138 55	
Earle & Co, E A	Tuyere blocks, vacuum cleaner, hose, etc., "	159 95	
Evans, Coleman & Evans	Tiles, lime, sand, "	38 85	
Fleck Bros, Ltd	Flue-brushes, "	8 20	
Fletcher, A N	Opening and repairing vault door, "	6 75	
Flett, Ltd, J H	Hinges, drill, bolts, sash-chains, etc., "	9 33	
Fourth Ave Heating & Plumbing Works	Repairs to pipes, "	12 25	
Fowler Mach Works, Ltd	Making steel plates, overhauling pumps, etc., "	236 16	
Heaps & Sons	Lumber, "	39 05	
Hodgson Plumb & H Co.	Solder, gasolene, repairs to roof and window, "	6 60	
Hopkins, T	Services as Bricklayer, "	5 00	
Hopkins, M T	Services as Labourer, "	3 00	
Imperial Oil Co, Ltd	Gasolene, "	6 20	
Johnson Temperature Regulating Co	Materials *re* heating system, "	18 00	
Lamb, J H	Services as Labourer *re* brickwork, "	3 00	
Lang Electric Fixture Co	Installing light, repairs, and fixtures, "	214 02	
Leek & Co, Ltd	Tail-pieces and nut for valve ; rubber diaphragms, "	18 00	
Lewis & Sills	Night-latches, nails, hinges, etc., "	66 45	
Mahony, J	Repairing blinds, cartage, etc., "	3 90	
Martin, Finlayson & Mather, Ltd	Oil, cord, lock, sandpaper, "	7 10	
McArthur & Co, Ltd, W T	Nails, screws, kalsomine, etc., "	25 19	
Murray Bros, Ltd	Brass plunger, toilet set, washers, and repairs to urinal, etc., Vancouver	31 30	
Northern Electric Co, Ld	Electrical supplies, Vancouver	10 96	
O'Neill Co, Ltd, Wm N	Repairs to toilet, "	47 30	
Otis-Fensom Elevator Co	Material for elevator, etc., "	27 05	
Pacific Welding Co	Welding cast fixture, "	75	
Robertson & Hackett	Lumber, "	52 88	
Simson, Balkwill & Co, Ld	Materials for repairs in boiler-room, "	85 54	
Slater, H A	Covering fire-door and door-frame and repairs to copper roof, Vancouver	23 95	
Smith, J	Repairs to boiler-arches, etc., Vancouver	76 50	
Taylor, Ltd, J & W	Drop-handle for vault and fixing same, "	6 50	
Townley, R & Son	Putting in sink and plumbing repairs, "	272 17	
Urquhart, A	Repairing steps, etc., "	13 50	
City of Vancouver	Rent of coal-chute, "	1 25	
Weeks & Co, Ltd	Plumbing repairs, "	30 13	
Western Oil & Supply Co	Leather belts, "	8 50	
Wood, Vallance & Leggat	Repairs to roof, "	3 60	
Bell & McKay	Spanner, Vernon	4 00	
Bigland, J R	Services, removing fallen plaster, "	2 50	
Campbell Bros	Brass tubing, "	3 75	
Can General Electric Co.	Repairs to motor, "	14 00	
Carswell, R	Lumber for shelves, "	11 67	
Dicker & Saunders	Plastering, "	68 00	
Edgar, J M	Repairs and electrical fittings, "	25 48	
Greenway, E W	Stain for shelves, "	1 25	
Harris, E	Making shelves, "	19 25	
Highman, J	Repairs to brickwork, "	22 50	
Holland, J J	Fitting shelves, "	4 24	
Keiffer, S B	Services *re* removing gilt ball from flagstaff, "	5 00	
Knowlsey, F	Cleaning up after plasterers, "	7 50	
Megaw, W R	Supplies for engine and boiler rooms, "	20 35	
Moore, S H	Repairs to windows and installing radiators, "	79 20	
Neil & Cryderman	Making bolts, "	1 00	
Seymour, S P	Repairs to pipes, "	1 70	
Smith Lumber Co, S C	Lumber and glass, "	54 26	
Vernon Hardware Co	Nails, washers, and repairs, paint, etc., "	25 52	
Anderson, W J	Weather-strip, Court-house, Victoria	3 50	
Armstrong Bros	Repairs to elevator, " "	7 70	
Cox, D G	(Paid) Batteries and spring, " "	1 10	
	Carried forward	.....	396,819 78

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		396,819 78
	XII.—PUBLIC WORKS.—*Continued.*		
	Works and Buildings.—*Concluded.*		
	Vote No. 140.—Repairs to Government Buildings throughout the Province.—Concluded.		
Drake Hardware Co	Oil and sash-cord, Court-house, Victoria	2 10	
Green, J	Repairs to lock on vault door, " "	4 50	
Harkness & Son, H	Repairs to fire-room, " "	30 75	
Hawkins & Hayward	Repairs to lights, " "	40	
Hickman-Tye Hrdwre Co	Door-check, etc., " "	15 39	
Leigh & Sons, J	Lumber, " "	19 50	
Lofts & Bosustow	Repairs to elevator, etc., " "	11 00	
Melrose Co, Ltd, The	Glazing, etc., " "	14 50	
Nott Co, Ltd, R J	Repairs to roof and boilers and plumbing, " "	562 30	
McQuade & Sons, Ltd, P.	Paint, hose-nozzle, paint-brushes, etc., " "	6 00	
Pay-lists	*Re* repairs, " "	27 63	
Pay-lists	Shelving, " "	8 50	
Hickman-Tye Hrdwre Co	Repairs to lock, bolts, door-check, etc., Land Registry Office, Victoria	23 80	
Melrose Co, Ltd	Glazing, " " "	17 05	
Morrison, J	Putting up stay-rods, " " "	10 00	
Nicholson, N	Repairs, " " "	6 37	
Pay-lists	do " " "	13 50	
Pay-lists	Shelving, " " "	10 63	
			18,161 53
	Vote No. 141.—Repairs to Parliament Buildings.		
Armstrong Bros	Repairs to locks, springs, etc	21 90	
Barnes, A H	Assembling stone and services as Electrician	346 77	
B A Paint Co	White lead, glue, varnish, etc	31 63	
Calwell, H	Haulage	8 00	
Canadian Consolidated Rubber Co, Ltd	Conical connections	1 14	
Can Yale & Towne, Ltd	Master-keys	13 04	
Capital Plan & Saw Mills	Lumber	86 60	
Carter Electric Co	Electrical supplies	657 69	
Crocker, J W	Plastering and repairs to tiles, etc	168 60	
Drake Hardware Co, Ltd	Nails, screws, bolts, glue, etc	55 71	
Ellis, E W	Scaffolding dome	14 87	
Evans, Coleman & Evans	Fire-clay, cement, lime, etc	146 31	
Fleck Bros, Ltd	Files, etc	13 98	
Fraser & Co, Ltd, W S	Pipe, beaver board, locks, nails, screws, etc	271 85	
Grant Electric Co	Electrical supplies	60 55	
Green, T	Repointing steps, etc., labour and material	38 90	
Hafer Machine Co, Ltd	Fuse-boxes, zinc plates, screws, etc., caulking boiler	227 68	
Harkness & Son, H	Obscuring windows	6 00	
Hawkins & Hayward	Electrical supplies and repairs	905 79	
Hickman-Tye Hdwre Co	Door-checks, keys, locks, screws, paint, etc	334 77	
H M Customs	Duty	4 77	
Knott & Jones	Repairs to brickwork around boilers	108 90	
Leigh & Sons, J	Lumber	501 05	
Lemon, Gonnason Co, Ltd	do	646 59	
Marvin & Co, E B	Oil, gasolene, saw-blades, files, etc	54 55	
Mellor, F	Sign-painting	38 10	
Mellor Bros, Ltd	Turpentine, oil, varnish, brushes, painting, etc	390 60	
Melrose Co, Ltd	Plate glass, door-plates, painting, etc	370 15	
Morrison, J	Manhole-covers, dampers, etc	141 35	
McQuade & Sons, Ltd, P.	Oil, gasolene, red lead, etc	58 71	
McTavish & Spencer	Electrical supplies	60 65	
Neal, W	Cleaning chimneys, etc	20 50	
Norris & Sons, F	1 dozen washers	1 44	
Nott Co, Ltd, R J	Plumbing, labour, material	58 35	
Otis-Fensom Elevator Co	Material for elevator	4 55	
Pacific Sheet Metal Works	Furnace-chimney, connection and extension	48 50	
Peden Bros	Keys	24 50	
Powell & Sons, G	Screw-eyes, soap, brushes, etc	16 49	
Prior & Co, Ltd, E G	Hardware	117 86	
Producer's Rock & Gravel Co, Ltd	Sand	15 00	
Robertson Iron Works	Repairing flooring, etc., and material	35 32	
Rithet & Co, Ltd, R P	Repairs to fire-alarm	1 78	
Rivers, H	Cleaning, oiling, blocking doors	16 80	
Sheret, A	Radiator, bolts, washers	46 40	
Spencer, Ltd, D	Felt, nails, baise, re-covering awning	34 45	
Staneland Co, Ltd	Varnish, oils, brush, etc	112 55	
Tite, C H	Papering, painting, etc	398 92	
Victoria Mach Depot Co.	Making iron gates, material and labour	241 94	
Waites & Knapton	Repairing locks and making keys	50 95	
Webb, F C	Painting, etc	195 00	
Pay-lists	Shovelling snow	66 00	
do	Carpenters, painters, plumbers, electricians, etc	6,808 13	
			14,102 63
			429,083 94

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.		
	Vote No. 142.—Alberni District.		
Alberni Lumber Co.	Lumber	18 38	
Alberni Trading Stores	Bran, rope, oil, blankets, etc.	11 20	
C F Bishop & Son	Milk, lantern, etc	4 63	
Boldthen, Harry	Stumping-powder, dynamite, etc	36 80	
B C Telephone Co, Ltd	Exchange service, $27; long-distance calls, $2.70	29 70	
Brand, Fred	Lumber and haulage	28 91	
Burke, J J	Hire of rig and hauling powder	7 50	
Cameron Farmers' Exchange, Ltd	Spikes	60	
Can Bank of Commerce	Exchange	18 40	
Canadian Explosives, Ltd	Powder and fuse	55 15	
Carr, Jos	Stabling	2 00	
City Treasurer	Water, $27; electric light, $4.25	31 25	
Coleman, Ephraim	Steel bar, bolt, blacksmith's work	12 10	
Costen, Thos	Lettering signs, etc	12 00	
Cowley, F	Gravel	3 50	
Craig, James	Blacksmithing	5 95	
Custance & Co	Powder caps, hardware, etc	127 30	
Darlington, G H & Co	Hardware, powder, caps, etc	257 70	
Dawley, Walter T	Powder, hardware, etc	81 01	
Deighton, A G	do	176 25	
Drinkwater, Joe	Launch-hire	20 00	
Duncan, J E	Saddlery, repairs to harness, etc	61 15	
E & N Railway Co	Damage to coach by blasting	4 18	
Ferguson, Fred	Shipment of powder, fuse, and caps	15 00	
Fraser, R L	Rough fir and drayage	35 76	
Garrett, W C	Blacksmithing	2 40	
Giant Powder Co, of Can	Powder, fuse, and caps	487 60	
Griffin, W B	Express on parcel	1 25	
Harrison, Victor B	Legal services	60 00	
Haslam, P A	Telegrams	12 91	
Holberg Mercantile Co	Hardware	42 45	
Holcombe, Charles	Cutting and stacking stove-wood	8 00	
Huff's Garage	Oil, tanks, etc	16 95	
Hunt, H W	Blue-print	3 00	
King, Harold S	Repairing pack-trail	21 00	
Lee, W H	Care of Government powder-house, 7 months @ $6	42 00	
Lee, E	Nails, axes, paint, etc	18 70	
Simon Leiser & Co, Ltd	Hardware	7 80	
Littleton, W J	Lumber	155 10	
Lockwood, J T	Powder, caps, and hardware	37 35	
Lowery, Jas	Blacksmithing	2 00	
Lynn, A A	Cutting out trees lying across road	3 00	
Maysmith, S M	Grader-blade and bolts	9 00	
Milligan, R	Fitting lock on door	50	
Moore, E	Oats	134 55	
Motion, Jas R	Slush-scrapers	16 00	
MacIntyre, A D	Hardware	49 05	
McLaughlin-Buick Garage	Bevel ring, axles, etc	49 50	
McLean, M G	Hardware	17 35	
Nanaimo Transfer	Auto-hire	10 00	
Ohlsen, Henry	Hardware	3 95	
Oliphant, William	Rubber-pump, points, etc	8 40	
Paine, E R	Powder, caps, fuse, nails, etc	1,393 06	
Parksville Carriage W'rks	Supplies and repairs	8 60	
Parksville Garage	do	59 79	
Pineo, C M	Embrocation, drenches, etc	7 00	
Pioneer Feed, Coal & Oil Co	Hay, bran, oats, straw, gasolene	926 90	
Plaunt, Tom	Compensation for portion of right-of-way	45 00	
Postmaster	Stamps, $30; rent of drawer, $2; freight, 35 cents	32 35	
Qualicum Merchant	Rope and pail	90	
Rushton, P	Blacksmithing	15 05	
Sampson Motor Co	Gasolene, tire, etc	54 74	
Shaw, Alex	Repairing road	3 00	
Sherberg, O A, & Sons	Nails	1 55	
Sloman, James	Dynamite	6 00	
Somers, I E	Hay	63 75	
Stewart, Peter	Blacksmithing	242 45	
Thomson, J	Sateen, milk for cat	1 80	
Vick, Jas E	Powder, fuse, axes, etc	41 75	
Watson, Donald	Auto supplies and repairs	160 95	
Watson, Johnson	Rent of post-office drawer, $2; stamps, $5	7 00	
Wayland, T H	Hay	59 80	
Wesche, A	Axes, handles, and files	8 00	
Wilkinson, Alf	Blacksmithing	7 40	
	Carried forward		

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 142.—Alberni District.—Concluded.		
Willey, A A	Drayage	3 00	
Stephens, M M	Acting Road Superintendent..... 224 days @ $5=$1,120; expenses, $245.30	1,365 30	
Wilmshurst, J	Road Superintendent expenses	20 25	
Collinge, Thos	Clerk to Road Superintendent ..... 8 months @ $85	680 00	
Pay-lists	Labour and team-work	42,679 00	
			50,170 62
	Vote No. 143.—Atlin District.		
Alexander, Capt James	To paid men engaged in repairing Gleanerville Wagon-road	245 00	
Callbreath, J Frank	Feed and care of Government team, 6 months and 21 days @ $85; hay, oats, horse-hire, etc., $633.53	1,200 19	
Columbia Mines Co	Lumber	8 31	
Daulton, T M	To paid for 44 4/5 days' work @ $5; powder, caps, and fuse, $20	244 25	
Dixon, Louis	Shovels and picks	12 00	
Dom Govt Telegraphs	Telegrams	11 85	
Dunlop Richard	Horse and cutter	5 00	
Foster, Wm	Sharpening saws, etc	14 00	
Cairns, C	Material and repairing tent	10 00	
Hanson, N G	Powder, dynamite, and fuse	19 65	
Hudson's Bay Co	Oats, nails, etc	71 20	
Hyland Estate, J	Axes, handles, candles, etc	26 60	
James, T A	Embrocation, liniment, etc	5 00	
Kershaw, J B	Powder, hardware, etc	71 05	
Marion, Adolph	Sharpening saws, etc	5 00	
Matthews, Isaac	Balance on contract on Spruce Creek	579 56	
Mobley, F H	Hay, oats, powder, and hardware	1,590 25	
McDonald, M J	Salt	1 60	
Nevile, C William A	Water, colic drinks, etc	17 67	
Northern Pioneer Lbr Co	Lumber	132 00	
Northern Power & Lbr Co	do	613 24	
O'Connor, P J	Blacksmithing	194 50	
Pacific Cartage, Ltd	Stabling and feeding team, freight, etc	79 96	
Pillman, E L	Freight on horse-feed	5 00	
Rimmer, W B	Setting grade-stakes for sidewalks on Front Street	15 00	
Roxborough, John	Livery-hire	154 00	
Schulz, L	Board, livery-hire, teaming, etc	111 00	
Vogel, Tim	Fuse and caps	5 20	
Wales, H S	Repairing Gleanerville Wagon-road	50 00	
Molyneaux, H	Road Superintendent..... 7 months and 13 days @ $160; expenses, $384.49	1,582 49	
Pay-lists	Labour and teaming	10,816 00	
			17,896 57
	Vote No. 144.—Cariboo District.		
Allison Drug & Book Co	Horse-medicine, $35.65; stamps, $20; post-office box, $8	63 65	
Anders, W J	Oats	20 00	
Anderson, W	Repairing harness	75	
Armishaw, J B	Compensation for burned fence	40 00	
Austin, A	Oats, bran, and freight	12 85	
Bailey, C E	Set of harness	20 00	
Baird, C H	Meals for man and team	4 50	
Baker, G R, M D	Medical attendance on E. Wells	10 00	
Ballian, H	Hire of motor-car	20 00	
Bank of B N A	Exchange and telegrams	6 04	
Barlow, R	Meals for man and team	31 00	
Bauer, L	Hay	307 56	
Bayliff, H P L	Hay and plough	33 75	
Beaton, D B	Meals	9 25	
Beaudoin, Joseph	Hay	104 00	
Bell, C	Hardware, rent of tool-house, etc	60 50	
Bird, J	Hauling provisions	25 00	
Blair, T W	Horse-feed for 12 days	12 00	
Borland, Robt	Stabling and meals	2 00	
Borrowman, R N	do	9 50	
Bowles, J A	do	6 25	
Boyd, A E	Gasolene, repairs to car, etc	90 85	
Boyd, A L	Building bridge	50 00	
Boyd, Mrs J F	Stabling and dinner	1 20	
Boyd Estate, J	Hay, stabling, and meals	444 03	
Brown, J	Delivery of powder	10 00	
Brown & Pidgeon	Freight, drayage and foreman's fare	20 00	
Burdett, A E	Lumber, plough-beam, hardware	20 93	
Campbell, A D	Stamps	6 00	
Can Bank of Commerce	Exchange	11 25	
	Carried forward		68,067 19

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	68,067 19
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 144.—Cariboo District.—Continued.		
Cariboo Trading Co, Ltd	Gasolene, hay, hardware, etc.	337 57	
Carlson, M A	Caps and fuse	4 60	
Carson & Son, A	Hay and oats	61 11	
Chief of Police (F E Aiken)	Licence for car	10 00	
Chilcotin Trading Co, Ld	Gasolene, coal, etc.	21 00	
Choate, F G	Powder, fuse, and caps	5 00	
Cochrane, Homer	Moving camp, etc.	4 50	
Cocker, Sam	Stabling, etc.	36 75	
Couldwell, W	Trough for horses	5 00	
Cowan Supply Co	Caps, fuse, hardware, etc.	184 45	
Crosina, L J	Meals and fuse	85 92	
Cummings, F D	Oats	20 00	
Curtis, Mrs H	Hay and beds	4 00	
Dale, W	Hay	25 00	
Davidson, J	Tent, hardware, etc.	67 80	
Davies, J P	Wages as Barnman for April	75 00	
De La Matyr, Harry	Repairing road	10 50	
Dom Govt Telegraphs	Telegrams and telegraphs	145 76	
Dougherty, A F	Hay	65 00	
Dougherty, G P	Meals, bed, and stabling	2 50	
Dougherty, Mrs P G	do	5 00	
Dumond, Mark	Road-scrapers, etc.	262 49	
Earley, O	Hay	510 77	
Erickson, P	1 fly, 20 x 30 feet	25 00	
Ferguson, W G	Blacksmithing	29 75	
Finlaison, C S	Hay	107 55	
Fletcher & Holt	Oats and hay	283 75	
Foley, Welch & Stewart	Dynamite	182 00	
Ft Fraser Mercantile Co	Gasolene, fuse, hardware	71 20	
Fort George and Alberta Telephone Co	Exchange service	98 00	
Fort George Drug Co	Horse-medicines, etc.	55 90	
Fraser, P H	Work on Horsefly Trail	60 00	
Fraser & Co, Ltd, J A	Caps, fuse, lumber, hardware, etc.	357 30	
Freer, George E	Cook-stove	15 00	
Gardner, H J	Hay, meals, stabling, etc.	207 75	
Gayer & Connelly	Powder, caps, and fuse	37 20	
Geo Little Lumber Yard	Lumber	4 55	
Goldie, H J	Board and lodging	24 50	
Goodman Supply Co	Oats, bran, and hardware	27 40	
Goodrich, F	Horse-hire	32 00	
G T P Railway Co	Freight	88 57	
G T P Steamship Co	Transportation for E. H. Small	37 10	
G T P Telegraph Co	Telegrams	71 57	
Graham, A	Hay	13 40	
Gravel, Jerimi	Care of horse for 3 months 10 days	50 00	
Greer, T	Oats, and freight on powder	59 25	
Grierson, Sam	Express charges	5 00	
Griffith, J D	Compensation for cultivated land and fencing	98 00	
Grimes, J S	Blacksmithing	2 20	
Grinder, Grant	Dynamite, hardware, etc.	108 80	
Gruns, Ben	Repairs to road	77 00	
Hall, H	Tires, etc.	56 15	
Hall & Sons, E	Hay, gasolene, etc.	195 20	
Hall Machine Works	New gear for car	6 50	
Hamilton, A G	Wagon and repairs	60 00	
Hamilton, Gavin G	Hay, oats, lumber, etc.	323 17	
Hamilton, T M	Horse-hire	28 00	
Hargreaves, J	Hay, oats, and repairs to road	98 05	
Harper, F	Powder, blacksmithing, hardware, etc.	336 83	
Harvey, Bailey, Ltd	Tire	56 00	
Heng Lung	Meals	5 25	
Heyworth Bros	Oats	100 00	
Hilborn, S L	Oats, meals, etc.	634 64	
Hill Bros	do	21 00	
Hodgson, T J	Plough, powder, etc.	37 59	
Hogg, W J	Compensation for road allowance	250 00	
Holmes, A W	Powder	15 00	
Hooker, T O	Blacksmithing, repairs, etc.	57 00	
Hoods, Ltd	Provisions	47 05	
Howison Estate	Stoves, hardware, etc.	145 25	
Hoy, D H	Rent of barn	15 00	
Hudson's Bay Co	Tents, hardware, etc.	197 82	
Hutchison Co, A	Hay	52 70	
Ingham, John W	Harness and repairs	6 00	
Inland Express Co	Expressage, $89.50; fares, $52.50	142 00	
	Carried forward	.....	68,067 19

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	68,067 19
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 144.—Cariboo District.—Continued.		
Irish, Mrs.	Meals and bed	2 50	
Irwin, D	Meals	3 00	
Isnardy, F	Meal and hay	1 00	
Jamisson, L C	Axes, etc	10 00	
Jefferson, Herman	Meals and stabling	10 50	
Johnston, C V	Freight and drayage	113 45	
Johnston, F J	Cordwood, scavenger, blacksmithing, etc	29 25	
Johnson, Gus	Use of well	12 00	
Johnson, R	Hay	83 26	
Johnston, J M	Gasolene, hardware, etc	185 70	
Johnston Bros	Haulage, etc	121 00	
Kelly, W W	Meals and bed	40 00	
Kennedy, Blair & Co, Ld	Hardware	54 25	
Knuth, F	Meals and bed	6 00	
Laramer, George	Crosscut saw and shovel	4 00	
Laronde, C	Meals, bed, and stabling	28 75	
Lazzerin Bros, J	Blacksmithing, hardware, repairs, etc	619 18	
Lee, E P	Hay, meals, and bed	23 85	
Lee, T C	Oats, hardware, etc	295 38	
Leith, J	Rope	40	
Lenihan, P	Repairs to fence	10 00	
Locke, A	Rent of stable, meals, bed, and stabling	83 00	
Love, G A	Hauling hay, etc	4 40	
Lowden, William	Hay and board	40 00	
Lyne, Wm	Meals, beds, stabling, and lumber	279 64	
Marion, T	Salt, gasolene, etc	51 75	
Maysmith, S M	6 grader-blades and bolts	54 00	
Meiss, Mrs A	Meals, beds, stabling, etc	19 00	
Menzinger, F	Meals, hay, and oats	5 00	
Middleton, R	Oats	40 00	
Miller, W	Repairs to car, etc	9 25	
Milne, S	Hay	173 60	
Milne, W J	Oats	401 03	
Moffat Bros	Meals, beds, stabling, hay, oats, etc	549 22	
Moore, G W J	Lumber	26 65	
Moore, J E	Oats and delivery	318 02	
Motor Boat "Circle W"	Freight	6 50	
Munro, Ltd, James	Horse-blankets	10 50	
Murphy, F	Auto fare	12 50	
Murphy, J P	Hay	1,294 15	
Mussens, Ltd	2 ploughs, 1 grader	128 10	
McArthur, A	Salary as barnman	75 00	
McBride Trading Co	Hardware, etc	7 20	
McCallum, J	Building garage	60 00	
McCorkell Bros	Fuse, caps, gasolene, etc	118 39	
McCormick, J	Hay	155 00	
McDonald, Daniel	Blacksmithing	34 07	
McKeen, H E	Shoeing horse	3 00	
McKenzie & Fraser	Hay	81 25	
McLean, J	Hay, oats, haulage, etc	57 25	
McInnes, A	Hay	18 75	
MacIntosh, Wm	Hardware, teaming	12 00	
McIntyre & Co	Lumber	7 56	
McIvor, J S	Work on Boyer's Hill	8 75	
McLean, Dr D R, V S	Veterinary services	95 50	
McMillan, N D	Cedar logs	34 56	
Nason, Fred	Meals, beds, and stabling	58 00	
Nechaco Drug Co	Drugs	3 15	
Nechaco Stables	Express, team-hire, stabling, etc	52 00	
Nechaco Trading Co	Bran, hardware, etc	13 65	
Newton, R F	Hay	47 32	
Nickalson, A	Oats	140 00	
Northern Lumber & Mercantile Co, Ltd	Hay, powder, caps, fuse, etc	2,986 64	
Northern Telephone & Power Co	Electric light	12 50	
Norwood Bros	Repairing sidewalk and material	20 25	
Park, Fergus	Oats	99 70	
Parker, Wm	Meals, stabling, etc	38 30	
Patenaude, A J	Caps, hardware, stable-rent, etc	21 25	
Peace River Trading Co.	Hardware	61 80	
Pickard, Geo	Oats, stabling, etc	21 00	
Pickard, T	Freight	6 00	
Pierson, A	Stabling and hay	3 00	
Porter, Mark	Hay	33 09	
Porter Hay & Grain Co	Hay, bran, and oats	435 15	
Postmstr (A D Campbell)	Stamps and rent of post-office box	34 00	
	Carried forward	.....	68,067 19

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		68,067 19
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 144.—Cariboo District.—Concluded.		
Potts, Robinson	Hay	90 00	
Pouce Coupe Trading Co	Hardware	12 20	
Prior, S C	Meals, bed, and stabling	5 50	
Quesnel Garage & Repair Shop	Gasolene, repairs, etc	325 13	
Quesnel Telephone Co	Telephone service, etc	19 90	
Raines, James	Freight	31 60	
Rankin, George	Blacksmithing, repairs, etc	275 00	
Reid, O J	Freighting scraper and tools	3 00	
Reid, Robt	Blacksmithing	21 65	
Reid Bros	do	53 75	
Reid Estate, J	Rent for powder-house, lumber, etc	277 03	
Reeves, C E	Hardware	8 00	
Revillon Freres Trading Co, Ltd	do	6 00	
Richards, C E	Hay	50 00	
Ross, James F	Meals and stabling	38 50	
Rousell, George	Hardware	2 30	
Rutherford, R (Road Foreman)	Meals and horse-hire	15 00	
Santorello, Tony	Scavenger	4 00	
Shepherd, J	Hay, meals, and team-hire	594 62	
Sherman, Wm	Butt-chains	1 00	
Shirley, James Ira	Freight	44 30	
Skeene, J	Hay	92 98	
Smith, C H	Storage, etc	8 51	
Smythe, C S	Repairing harness	1 50	
Somerton, Wm	Telegrams, light	6 75	
Spencer, H H	Hay, meals, bed, and stabling	56 50	
Staebler, Mrs	Oats	220 00	
Strand, J	Meals and bed	20 50	
Stuart Lake Trading Co	Boat-hire, hardware, etc	46 97	
Taylor, James	Use of scraper	5 00	
Teasdale, M	Repairs to bridge	30 00	
Thomas, T	Tent	12 00	
Thrower, Walter	Fuse	10 20	
Tindall, Wm	Tent	20 00	
Tite, G D	Drayage, etc	5 25	
Truman, J	Hay	62 96	
Turnbull, Geo	Hardware	5 60	
Van, G	Oats	8 00	
Walters, H L	Hay, oats, etc	498 49	
Webster, W	Hay and oats	813 78	
Welch, P	Boots, horse-blankets, scrapers, and wagon	119 50	
Wells, E	Meals	12 25	
Westaway, J J	Repairs to car	3 50	
Weyenberg, Mrs	Meals and bed	12 50	
White Lunch Café	Meals	4 90	
Wiggins, James	Axe-handle, meals, bed, and stabling	3 75	
Williams, J F	Meals, bed, and stabling	80 25	
Williams & Cole	Drugs, etc	10 80	
Wilson, Thos A	Caps and fuse	2 50	
Wingdam Co, Ltd	Meals, bed, and stabling	101 75	
Windt, A T	Grader and lumber	5 20	
Windt Bros	Hay	25 00	
Yorston, Robt	Meals and stabling	5 00	
Yorston Bros	Hay, stabling, and meals	155 63	
Young, A D	Sewing gash on horse	3 00	
Moffat, H	Road Superintendent, 243 days @ $5.50; horse allowance, 8 months @ $20; travelling expenses, $383.50	1,880 00	
Snell, George	Road Superintendent, 303 days @ $5.50; travelling expenses, $594.15	2,095 65	
Thompson, E L	Foreman, 78 days @ $5; storage, etc., $29.50; expenses, 189.55	609 05	
Brady, J F	Clerk to Road Superintendent, 4 months 23 days @ $90	429 00	
Moffat, A B	do " 9 months @ $90; freight paid, 2.63	812 63	
Small, E H	Services and expenses, inspecting and checking road equipment	308 98	
Pay-lists	Labour and teaming	93,563 24	
			122,580 93
	Vote No. 145.—Chilliwack District.		
Abbotsford Garage Co	Gasolene and repairing, etc	140 57	
Abbotsford Timber & Trading Co	Lumber and stumping-powder	337 86	
Alanson, H	Hardware, cement, etc	55 70	
Baines, F	Stumping-powder, etc	22 40	
B C Electric Ry Co, Ltd	Freight on rock, etc	903 18	
B C Telephone Co	Long-distance messages	12 20	
	Carried forward		190,648 12

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	190,648 12
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 145.—Chilliwack District.—Concluded.		
Bowman, Orion	Lumber	47 27	
Chief of Police	Renewal of motor-car licences	20 00	
Cannon, John	Gravel	718 20	
Carter, H W	Iron and cutting and drilling	8 45	
Chilliwack Telphone Co.	Telephone messages and rental	44 60	
Clayburn Co, Ltd	Sewer-pipe and cement	16 16	
Cobley, E	Wire nails	3 10	
Coburn, H S	Sharpening ploughshare, etc., and repairing	8 20	
Copping, J G	Drain-pipe	80	
Denmark & Burton	Hardware, etc	98 12	
Dominion Lands, Agt of	Annual rental, Lease No. 132	40 00	
Fir Tree Lumber Co.	Lumber	100 93	
Fraser Valley Trading Co	Lumber and hauling	21 84	
Gervan Hardware Co.	Hardware, etc	109 85	
Goldsmith, A K	Fuse and caps	4 85	
Hall, Wm	Gravel	12 00	
Heaps Engineering Co.	Gully-frames and grids and cartage	18 95	
Hutchison, J C	Engineer on steam-roller, 14½ days @ $4	58 00	
Ironside, Geo	Bars, plates, bolts, etc	26 30	
Jackman, Philip	Powder, caps, and fuse	90 40	
Kilgard Fire Clay Co, Ld	Sewer-pipe and cartage	63 71	
Kravoski, S	Repairing share	2 00	
Lillie, T L	Automobile repairs and gasolene, etc	720 41	
Macken-Knight Lbr Co.	Lumber	28 91	
Mellard, S	1 year's rent of post-office box and stamps	5 00	
Merryfield Bros	Shovels, etc.; powder, etc	15 60	
Mussens, Ltd	Road-graders	38 27	
Myhre & Gilbertson	Shovels and rake	5 40	
McBride, Hugh	Automobile repairs, gasolene, and iron, etc	52 98	
McMenemy, J K	Gravel-screen, repairing and sharpening	27 95	
Nascou, Edward	Gravel	16 00	
Robertson, J P	Coal	36 00	
Smith, M C	Gasolene	1 65	
Sparrow, J W	Gasolene and bricks	25 24	
Straiten, T B	Powder, fuse, etc	84 43	
Trapp & Co, Ltd, T J	Dynamite and freight	124 31	
United States Fidelity & Guaranty Co	Premiums under bonds	27 12	
Webb, Horatio	Powder and fuse	22 50	
Munroe, Frank	Services as Road Superintendent, 229½ days @ $5; expenses, $214.45	1,361 95	
Travis, Percy	Clerk to Road Superintendent, 58½ " 3; 6 months @ 75	625 50	
Pay-lists	Labour and team-work	27,008 06	
			33,212 92
	Vote No. 146.—Columbia District.		
Cameron-Ways Lmbr Co.	Lumber	32 19	
Can Ingot Iron Culvrt Co	Culverts	432 00	
Canadian Explosives, Ltd	Powder, dynamite, and freight	194 32	
C P Railway Co	Freight, etc	70 30	
Columbia River Lmbr Co	Lumber and cartage	743 68	
Columbia Valley Irrigated Fruit Lands, Ltd.	Rent of tool-shed and warehouse	75 00	
Columbia Val Supply Co.	Hardware and sacks	10 83	
Columbia V Orchards, Ld	Dynamite	288 75	
Craig, S	Repairs and sharpening picks, etc	15 60	
Dominion Express Co.	Express charges	2 05	
Govt Telegraph Service.	Phone-rent, etc	67 69	
Fairmont Trading Co	Timber and spikes	5 35	
Giant Powder Co, Ltd.	Powder	319 50	
Hamilton, A C	Hay, oats, hauling, and freight, etc	187 64	
Hartley, G W	Snow-plough, 16 hours @ $0.50	8 00	
Haupt, W	Making drift-bolts and sharpening	7 25	
Hawkins, F P	Stumping-powder	9 50	
Howell, D	Posts and boards, "To Invermere"	18 50	
Haynes, James	Labour, making rod, 1½ days @ $3	5 50	
Invermere Construction & Supplies, Ltd	Hardware, fuse, etc	28 32	
Invermere Garage	Gasolene	8 80	
Johnston, W H	Powder, fuse, caps	16 00	
Kemprude, C	Tents and axle-grease	40 36	
Lambert, James	Refund of prepaid freight	1 70	
MacDonald Bros	Grease, fuse, caps, etc	4 95	
McLaughlin Carriage Co.	Gears, etc., and repairs	60 75	
Maysmith, S M	Grader-blades and bolts	36 00	
McHattie, John	Shoeing, repairs, etc	119 68	
Moore, J	Hauling tools	6 50	
	Carried forward	.....	223,861 04

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	223,861 04
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 146.—Columbia District.—Concluded.		
Nelson, E B	Sharpening picks, etc	72 90	
Parson, Ltd, H G	Axes, picks, etc	47 40	
Pellegrino, A	Hire of plough ..... 12 days @ 0.25	3 00	
Pitts, J C	Staples, grease, and oil	6 50	
Parson, C H	Stamps and rent of mail-box, 3 months	23 00	
Provincial Police	Renewal of licence for car, 1916	10 00	
Ratcliffe Bros	Tire, gasolene, etc	56 65	
Roberts, Ben	Putting on radiator and connecting	10 00	
Rocky Mountain Livery & Stage Line, Ltd	Overhauling car and hauling, etc	30 00	
Rolston, D R	Axes, etc	10 00	
Turnor, P W, M D	Professional attendance to Ed. Rauch	59 55	
Unionist Investment Co	Powder, dynamite, etc	182 25	
Warren, Chas A	Hardware, fuse, caps, etc	443 43	
Wilmer Mercantile Co	Hardware	44 67	
Wright, W J	Hay	28 53	
Wolfenden, A	Powder, spikes, mattocks, etc	35 28	
Wood, J T	Hardware	8 50	
Trimble, E	Road Superintendent ..... 179 days @ $5.50; expenses, $259.50	1,033 50	
Good, James A	Assistant Road Superintendent ..... 234 " 5 ; " 135.85	1,305 85	
Moore, H C	Clerk to Road Superintendent ..... 9 mos. 75 ; 2 mos. @ 37.50	750 00	
Rauch, Edward	Half-pay for injuries on Government work ..... 147 days 1.50	220 50	
Pay-lists	Labour and team-work	28,488 35	
			35,686 57
	Vote No. 147.—Comox District.		
Adey, Mrs. C H	Drilling machine	17 50	
Anguish, L A	Telegrams	2 00	
Baird, J	Motor licence and renewal	30 00	
Ball, A B	Nails, fuse	4 95	
Banks, T E	Making danger-signs, labour and lumber	12 00	
Bate, T E	Files, nails, shovels, bucket, etc	10 90	
Berg, J	Launch-hire	95 00	
B C Garage	Gasolene and dry cells	3 60	
B C Telephone Co	Telephone	60 70	
Campbell, C	Painting signs	21 00	
Campbell River Trad Co	Gasolene, nails, paint, etc	100 55	
Canadian Collieries, Dunsmuir, Ltd	Charging battery	1 50	
Can Fairbanks-Morse Co	Crank-shaft for motor truck	165 00	
C P Railway Co	Freight	70	
Comox Logging & Ry Co	Caps and fuse	7 00	
Courtenay Electric L, H & P Co	Electric light	15 70	
Creech, E	Cutting thistles and auto-hire	32 50	
Day, John	Making gratings and sharpening picks, etc	3 70	
Dominion Express Co	Auto-tire, etc., and expressage	66 30	
Dom Glazed Cement P Co	Pipe	69 96	
Dom Govt Telegraphs	Telegrams	10 70	
Durico, J	Stumping-powder	9 00	
Elder Bros	Repairs to tools, etc	8 50	
Emde, E C	Auto supplies and repairs	680 12	
Fraser & Bishop	Hardware, gasolene, and launch-hire	106 10	
Grantham Saw Mill Co	Lumber	36 67	
Grierson, R	Fares, freight on boat	7 00	
Giant Powder Co, The	Powder, fuse, etc	792 05	
Higgins, A	Half-pay ..... 50 days @ $1.50	75 00	
Hopwood, T J	Telegraph and telephone	5 36	
Hudson, T	Auto-hire	5 00	
Jameson & Rolfe	Automobile, supplies, repairs, etc	1,077 66	
Keenan, J W	Launch-hire	13 00	
Kierstead, A R	Repairs to auto-truck	1 00	
Kilpatrick, D	Lumber	59 57	
Lanquist, E	Gasolene, powder, etc	19 75	
Leighton, G	Mattocks, picks, etc	42 25	
Loggie, E	Launch-hire	10 00	
Lyon, A M	Hardware	107 10	
Matilla, J V	Boat-hire	24 00	
McLeod, A	Powder, caps, fuse	35 20	
McDonald & Co	Lumber and labour *re* grading	64 00	
McKenzie & Son, J W	Hardware and sharpening tools	33 55	
McLean, D	Telegrams	1 00	
McLennan, McFeely & Co	Hardware	127 93	
McPhee & Morrison	do	27 45	
McQuillan, R	Livery-hire	27 50	
Mitchell, H	Pick and repairs	1 75	
	Carried forward	.....	259,547 61

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		259,547 61
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 147.—Comox District.—Concluded.		
Moore, C J	Nails, grease, bucket, etc	1 70	
Olley, G	Firewood	3 00	
Parkin Bros	Nails, spikes, broom	12 15	
Pearse, T	Wire rope	9 40	
Phillips, H A	Launch-hire	15 00	
Pigott, C H	Hardware	26 95	
Postmaster, The	Stamps and rent of box	18 00	
Postmaster	do	43 00	
Powell River Co, Ltd	Office-rent, light and water ; hardware, haulage, launch-hire, etc	148 35	
Quathiaski Canning Co	Auto-hire, spikes, etc	3 60	
Rolandi, J	Launch-hire	15 00	
Sacht, H O	Hardware	26 60	
Scothorn	Launch-hire	12 00	
Shaver, W	Telegraph and telephone	2 89	
Skinner, J J	Shovels, powder, fuse, etc	100 25	
Smith, C P	Fuse	1 25	
Smith, T W & J E	Powder, nails, fuse	9 40	
Smith Lumber Co, S B	Lumber	15 00	
Sointula Co-op Store, Ld	Hardware, fuse, stumping-powder	85 35	
Spencer, W	Telegraph and telephone	6 76	
Stevenson, J	Supplying and painting sign-boards	13 50	
Swan, A H	Stumping-powder, fuse, caps	80 55	
Tarbell & Sons, C H	Hardware, auto supplies, etc	184 35	
Thulin Bros	Provisions, hardware, dynamite, launch-hire, repairs	288 20	
Thompson, N	Nails, handles	5 25	
Tweedie, C	Launch-hire	19 00	
Union Steamship Co, Ld	Powder, caps	8 85	
Willard, W	Rug and fan-belt for auto	12 80	
Willows Hotel	Launch-hire	4 00	
McLeod, J L	Services as Road Superintendent ..... 9 months @ $135.00 ; expenses, $170.10	1,385 10	
Wilmshurst, J	Road Superintendent ..... 262 days 5.50 ; " 315.10	1,756 10	
Allan, R M	Services as Clerk to Road Superintendent ..... 9 months @ 80	720 00	
Smith, E H	do " ..... 6 months 23 days 80	539 35	
Pay-lists	Labour and team-work	41,621 15	
			51,322 62
	Vote No. 148.—Cowichan District.		
Ballard, H	Hardware, powder, fuse, caps	69 92	
Barry, D	Gravel	8 50	
Barry, T P	Blacksmithing	45 60	
Bonner, G E	Lumber, powder, etc	130 05	
B C Telephone Co	Exchange service and long-distance calls	44 65	
Catheart, E A	Nails, bucket, etc., and freightage	6 36	
Chisholm, A	Culvert and concrete pipe	186 00	
C & H Supply Stores	Tools	19 75	
Cobble Hill Traders	Caps, fuse, etc	8 05	
Cook, H	Gravel	13 50	
Cowichan Merchants, Ld	Hardware, gasolene, oil, powder, etc	323 04	
Cox, A G	Spikes	2 50	
Daniels, J	Gravel	12 00	
Donald, Mrs	do	30 70	
Duncan, J	do	16 40	
Duncan Garage, Ltd	Repairs, gasolene, supplies	183 90	
Forrest, W, Mrs	Gravel	27 20	
George, Chief	do	1 60	
Grassie & Son, R	Blacksmithing	51 10	
Hagan, W J	Powder, hardware, etc	112 80	
Hattie, D R	Gate	12 85	
Hearn, J	Gravel	27 50	
Hillcrest Lumber Co, Ld	Lumber	82 61	
Hollings, A E	Iron pipe	3 00	
Island Motor Works	Auto supplies and repairs	23 40	
Jack, A	Gravel	1 80	
Jack, J	do	2 00	
James, S	do	5 60	
Johnson, H	Launch-hire	5 00	
Knox Bros	Fencing	1 40	
Mainguy, L	Gravel	10 70	
Marsh, J	Freightage	1 00	
May, H	Gravel	13 10	
McPherson, Mrs. E	do	3 10	
Melrose, Mrs M	do	1 60	
Michel, J	do	2 80	
Price, V T	do	1 00	
Rasmussen, H L	Blacksmithing	8 25	
Scheelen, Rev E M	Gravel	4 00	
	Carried forward		310,870 23

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		310,870 23
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 148.—Cowichan District.—Concluded.		
Shaw, J	Blacksmithing	37 60	
Shearing, E	Gravel	3 10	
Shearing, Wm	do	2 00	
Smith, J R	Blacksmithing	7 25	
Smith, P	Trees for cribbing	5 00	
Spears, J	Logs for cribbing	5 50	
Victoria Lbr & Mfg Co	Gravel, lumber, fuse, etc	92 93	
Weeks, W	Gravel	3 00	
Williams, J	Trees for cribbing	72 50	
Auchinachie, P	Road Superintendent 221 days @ $5.50; expenses, $ 5.25	1,220 75	
Day, V P	do " Clerk 9 months @ 35	315 00	
Pay-lists	Labour and team-work	24,241 25	
			27,510 21
	Vote No. 149.—Cranbrook District.		
Bull, P	Dynamite, caps, and fuse	14 25	
C P Railway Co	Telegrams	9 35	
City Trans & W'house Co	Haulage, dynamite, caps, fuse, etc	362 97	
Consolidated Mining & Smelting Co	Powder, caps, and fuse, etc	79 85	
Cranbrook Co-op Stores	Cooking-range	41 00	
Cranbrook Elec Light Co	Electric light and meter-rent	4 85	
Cranbrook Foundry & Machine Shops	Pulley, repairing gasolene-engine	17 50	
Cranbrook Herald, Ltd	Printing *re* tender for auto	2 04	
Cranbrook Sash & Dr Co	Lumber and freight	317 06	
Cranbrook Trading Co	Double-trees, wagon-pole, etc	18 00	
Crow's Nest Pass Lbr Co	Lumber, hardware, etc	49 40	
Dezall, F	Blacksmithing, hardware, etc	435 15	
E Kootenay Lbr Co, Ltd	Lumber	18 07	
Fink Mercantile Co, Ltd	Oilcloth	1 20	
Fort Steele Trading Co	Dynamite, caps, fuse, hardware, etc	109 35	
Hanson Garage	Batteries	3 00	
Imperial Oil Co, Ltd	Gasolene, polarine, grease	56 96	
Jobe, L	Cleaning and overhauling typewriter	6 00	
Johnson, W E	Blacksmithing	6 00	
King Lumber Mills Co	Lumber	20 67	
Kootenay Tel Lines, Ltd	Exchange service and long-distance calls	33 00	
Lewis, J P	Lumber	3 45	
Manning, Ltd, I R	Wood	2 00	
McBride, J D	Hardware, gasolene, dynamite, etc	422 32	
McCreery Bros	Rubber-boots, oilcloth	9 30	
McLeod & Harrison	Hardware	22 43	
Otis-Staples Lumber Co	Lumber	5 68	
Parks & Co	Dynamite, caps, fuse, hardware, etc	82 60	
Postmaster, Cranbrook	Box-rent and postage-stamps	25 00	
Reyman, M G	Dynamite, caps, and fuse	17 25	
Smith, R A	Lumber, nails	2 23	
Starritt, D F	Lumber	6 40	
Wallinger, N A	Expenses *re* inspection of flume	4 50	
Worden, W E	Dynamite, caps, and fuse	16 00	
Reid, J	Road Superintendent 235 days @ $5.50; livery allowance, 9 months @ $ 50	1,742 50	
Elgee, E P	Clerk to Road Superintendent 9 " 100	900 00	
Pay-lists	Labour and team-work	34,573 01	
			39,440 34
	Vote No. 150.—Delta District.		
Anderson, A R	Blacksmithing	37 75	
Barton, D S	Rail fare *re* inspection of plant	1 30	
Beaver River Lumbr Co	Lumber	14 40	
Belyea, E	Plough-hire	1 25	
Boothroyd, G A	Grinding feed	2 50	
Bose, H	Powder, feed	788 76	
Brackman-Ker Milling Co	Feed	17 05	
B C Electric Ry Co, Ltd	Freight, $65.32; rental of siding, $80.89	146 21	
B C Equipment	Grader-edges	16 20	
B C Refining Co, Ltd	Road-oil	464 10	
B C Telephone Co, Ltd	Exchange service and long-distance tolls	51 00	
Burrows & Son, A J	Hardware, caps, fuse, etc	91 40	
Campbell, G	Postage-stamps, box-rent	22 00	
Campbell River Lumbr Co	Lumber	15 05	
Can Fairbanks-Morse Co	Oil	18 16	
Christie, L	Oats	36 00	
Coulter & Berry	Hardware	1 25	
Cowley, C	Spades	10 00	
	Carried forward		377,820 78

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	377,820 78
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	***Vote No. 150.—Delta District.*—Concluded.**		
Cunningham Hdwre Co.	Hardware	14 20	
Dann, J	Carrots	8 00	
Dom Glazed Cement P Co	Concrete pipe	114 40	
Dunlop Tire & Rub Gds Co	Covers for auto	32 00	
Emptage, W	Lumber	2 00	
Gibbons, J	Hardware	2 50	
Gilley Bros	Crushed rock	37 50	
Grain Growers' B C Agcy	Oats	3 80	
G N Railway Co	Freight	30 55	
Harrower, J	Powder, caps, and fuse	94 75	
Heppell, J T	Feed and stabling	1 50	
Hornby, H	Hay and straw	156 82	
Imperial Oil Co, Ltd	Gasolene and freight	22 68	
James & McClughan	Caps and fuse	6 75	
Keery, J	do and hardware	4 10	
Matheson, D	Oats and straw	147 40	
McInnes, W H	Dump-wagon, double-tree	92 50	
McInnes, N	Fuse	1 70	
McLean, B B	Lumber	15 98	
McLaughlin Carriage Co	Oil, repairs to auto, etc	140 90	
Molyneux, W E	Oats	77 00	
Monahan Bros	Hardware	1 25	
Morrison & Matheson	Blacksmithing	154 35	
Murrayville Livery	Hay	44 50	
Mussens, Ltd	Parts for graders	23 75	
Nascou, E	Gravel	1 44	
O'Hara, J H	Services as Engineer, locating roads, and expenses	71 30	
Oxenham, J	Caps and fuse	32 40	
Pacific Rubber Tire & Repair Co	Tire, casings, and repairs	70 85	
Parr, H V	Hardware, hay, etc	44 05	
Porter & Son, G	Stone-drill, repairs to pulleys	3 25	
Royal City Glass Co	Wind-shield for auto	3 50	
Ruckle, F	Meals, bed, horse-feed, and stabling	20 80	
Scott, J	Meals	2 10	
Shell Co of California	Gasolene	225 45	
Smith, J	Oats	39 00	
Speck, G R	Carbonvoid	1 50	
Trapp & Co, T J	Hardware, casings, springs, oil, etc., for auto	286 58	
Timberland Lbr Co, Ltd.	Lumber	57 61	
Van Engineering Works	Lubricator, washers, etc	18 60	
Vannetta, W I	Powder, caps, and fuse	3 00	
Westminster Iron Works	Blacksmithing	6 30	
Williams, H	do	2 50	
Witton, A M	Hardware, caps, fuse, etc	36 85	
Delta Municipality	Work on River Road, Government to pay half-cost	600 00	
Langley Municipality	Building cement culvert, Yale Road, Government to pay half-cost	152 98	
Mackenzie, R D	Road Superintendent 232 days @ $5; expenses, $77.50	1,237 50	
Lashmar, P C	Clerk to Road Superintendent	95 00	
Fraser, W D	do "	70 95	
Pay-lists	Labour and team-work	15,665 97	
			21,714 74
	Vote No. 151.—Dewdney District.		
Abbott & Abbott	Hardware	23 68	
Abernethy & Lougheed	Oil, grease, and lumber	11 45	
Ansell, W	Freight	2 84	
Barnes, J	Purchase of right-of-way, 2 acres improved land	400 00	
Blackstock, G	Gravel	52 90	
Blake, R	do	9 00	
Bond, E J	Batteries	9 15	
Bonson, J	Fares and meals	7 50	
Bothamley, A	Erecting wire fence, $181.50; purchase of right-of-way, 1.77 acres @ $125, $221.25	402 75	
B C Refining Co, Ltd	Asphaltum, road-oil	1,401 93	
B C Telephone Co, Ltd	Exchange service and long-distance tolls	99 95	
B C Transport Co, Ltd	Idler, $75; coarse sand and crushed rock, $217.07	292 07	
Cade, G E	Haulage	12 00	
Can Fairbanks-Morse Co	Battery and pump-valves	5 50	
C P Railway Co	Telegram	25	
Can Western Lmbr Co	Lumber	28 60	
Cannon, J	Hire of launch and man 28½ days @ $15	427 50	
Cassimere, Chief	Gravel	65 00	
Catherwood, J A	Powder, caps, fuse	144 55	
Charlton, M B	Hardware	28 45	
City of Port Moody	Crushed rock, coal, powder	1,207 50	
Cleary, M	Gravel	27 40	
	Carried forward	.....	399,535 52

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		399,535 52
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 151.—Dewdney District.—Continued.		
Columbia Block & Tool Co	Hardware	14 75	
Consolidated Motor Co..	Parts for auto and repairs	18 75	
Coquitlam Hdwre Co....	Hardware, oil	76 26	
Coquitlam Hotel	Rooms and meals	9 20	
Corporation of Burnaby.	Water	1 50	
Crane & Co.	Pump, ejector, etc.	7 07	
Cunningham Hdwre Co.	Plough-steel cable, grease	31 05	
Cyr, Z	Rock	11 20	
Dale, J M	Hardware	11 80	
Davies & Co, B.....	Coal	2 80	
Department of Indian Affairs, Ottawa.....	Fee in granting strip of land, Sumas Indian Reserve	5 00	
Des Brisay & Co, M.....	Gum boots	5 00	
Dewdney Trading Co....	Hardware, rope, oil, etc.	26 50	
Dickinson & Buckerfield	Coal	242 35	
Erskine, R	Blacksmithing	5 45	
Fedell, F.....	Gravel	37 05	
Fortune, J.....	Launch-hire, $10; cleaning trail, $7.50	17 50	
Fortune, Mrs	Meals and beds	4 00	
Franklin, J E.....	Repairs to gasolene-engine	5 00	
Fraser, N C.....	Blacksmithing	102 40	
Gardom, B.....	Purchase of right-of-way, 1.9 acres @ $200; deeds of conveyance, $5; fence-wire, clips, staples, etc., $57.62	442 62	
Gilley Bros..... ..	Crushed rock, coal, sand, etc	1,763 95	
Graham, D.....	Blacksmithing	16 45	
G N W Telegraph Co....	Telegram	25	
Guiney, T	Haulage	3 60	
Haliburton, A	do	2 75	
Hall & Co	Nails	3 00	
Hallam, Mrs G.....	Compensation in full of all liability for death of G. Hallam, caused by accident in unloading rock at Mission	1,500 00	
Hampton, J.....	Freight, phone charges	70 74	
Haney, A.....	Feed	2 00	
Hargitt, J.....	Batteries	2 70	
Hawkins, F..... ...	Posts	17 40	
Herpe, J.....	Freight on powder	15 00	
Johnston Bros.....	Hardware	7 10	
Jones, J H.....	Funeral expenses of G. Hallam	162 75	
Kosky, J	Blasting out jams	150 00	
Lane Bros	Rubber boots	16 00	
Langley & Hazlitt.....	Electrical supplies for Pitt River Bridge	42 90	
Lawrence, J H.....	Lumber, hame-straps	2 32	
Lloyd, E.....	Launch-hire	8 10	
Macaskill, M.....	Services, examining scow	5 00	
Maclean-Burr Auto Co ..	Tire and repairs to auto	49 15	
Mainland Navigation Co.	Freight	15 50	
Maple Ridge Lumber Co	Lumber	37 89	
Maple Ridge Municipality	Proportion of work on Townline Road	600 00	
Middleton, Mrs M J....	Assistance and care of G. Hallam after accident	8 00	
Mission City Telephne Co	Telephone calls	75	
Mission City Water & L Co	Lumber	20 10	
Mission City Hardwre Co	Hardware, oil, grease	389 76	
Monarch Towing & Trading Co, Ltd.....	Towing pile-driver and scows	60 00	
Montgomery, C.....	Powder, caps, fuse, etc.	24 40	
Morrison, C.....	Expressage and rail fares	4 90	
Murphy, P.....	Blacksmithing	17 25	
Murray, C W	Surveying right-of-way, plans, and description	10 50	
McLean, A H.	Towage, $22.50; hire of man and launch ..... 64 days @ $15	982 50	
MacRae, R	Lumber and cedar for culverts	312 05	
Nelson, R	Blacksmithing	6 00	
O'Brien, E E.....	Phone calls	2 00	
Pacific Coast Pipe Co...	Lumber	44 22	
Platt, L	Gravel	38 70	
Postmaster, N Westm'r..	Postage-stamps	50 00	
Proulx, G H	Hardware, oil	2 00	
Queensboro Shipyards. .	Rent of scow	524 40	
Reichenbach, J.....	do	125 80	
Ritchie, J.....	Hardware	3 85	
River Lumber Yard.....	Lumber	400 57	
Rori, Rev Father.....	Gravel	1 00	
Routley & Gould	Wagon-hire	5 00	
Royal City Auto Shop...	Tires, inner tubes, repairs to auto	118 35	
Sharpe, R H.....	Cedar	5 00	
Silver Creek Lumber Co.	Lumber	1 45	
Simpson, Balkwill & Co..	Wire rope, etc.	8 97	
Smith, A	Auto-hire	10 00	
	Carried forward		399,535 52

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	399,535 52
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 151.—Dewdney District.—Concluded.		
Smith, G	Powder, caps, and fuse	10 50	
Stearman, W C	Electric globes	60	
Stephens, A	Bandages, etc., *re* accident to G. Hallam	3 15	
Stiles, A	Towing scows	415 00	
Strong, C	Blacksmithing	6 75	
Stuart, Dr A J	Professional services *re* accident to G. Hallam	5 00	
Swift, Dr T A	do "	15 00	
Thornton, M A	Hardware	2 00	
Trapp & Co, Ltd, T J	Powder, gasolene, oil, hose, etc	816 36	
Trethewey, E	Rent of dredge	79 91	
Tupper, J A	Livery-hire, $14; prepaid freight, $56	70 00	
United Farmers, Ltd	Powder	21 45	
Ward, G A	Boat-hire, meals and beds	12 00	
Warren, S W	Nipples, expressage, etc	3 60	
Webb & Gifford	Repairs to roller	76 57	
West Can Power Co, Ltd	Power and light, Pitt River Bridge ..... 12 months @ $20	240 00	
Wilson, Son & Co, R	Gasolene	20 38	
Woods, Mrs C H	Purchase of right-of-way, 7/10 acres improved land @ $200	140 00	
Bonson, R F	Road Superintendent ..... 229 days @ $5.50; expenses, $118.40	1,377 90	
Godson, G	Clerk to Road Superintendent ..... 2 months @ $50; 7 months 20 days @ 80	711 60	
Pay-lists	Labour and team-work	47,485 63	
			64,922 09
	Vote No. 152.—Esquimalt District.		
Armstrong Bros	Repairs to roller and auto	239 35	
Baines, H	Tires and tubes	116 45	
Barker, F C	Lumber	6 70	
Berrett, G W	Meals, bed, and conveyance	5 00	
B C Electric Railway Co	Car tickets, $50; light, $5.01	55 01	
B C Phone Co	Telephone	62 55	
B C Pottery Co, Ltd, Lty	Cement and pipe	55 77	
Brown, H R	Blacksmithing	24 25	
Burnett Bros	Repairs to pump	15 50	
Canadian Explosives, Ld	Powder, fuse, etc	1,052 81	
Can Fairbanks-Morse Co	Brake	8 90	
Charters, W B	Lumber	11 63	
Chemainus Wood Co	Powder, fuse, and freight	10 13	
Copley, Mrs	Powder and freight	7 50	
Davie, H A	Repairs to auto	46 85	
Dockings, W	Blacksmithing	31 00	
Duke, Mrs	Gravel	2 50	
Dunlop Rubber Co	Traction-covers	71 90	
Esquimalt Water Co	Brass bearings for cars, lumber, water, etc	55 93	
Evans, Coleman & Evans	Cement	33 00	
Exton White Lime Co	Lime	4 50	
Frewing & Co	Hauling plough, etc	1 50	
Gray, J H	Gravel	2 40	
Green & Burdick Bros, Ld	Reporting on road	10 00	
Hickman-Tye Co, Ltd	Coal	7 45	
Hudson's Bay Co	Gravel	43 35	
Imperial Oil Co	Gasolene	17 45	
Johnston, P D	Postage stamps, toilet requisites, etc	67 40	
Kingsley Bros	Detonators and fuse	3 10	
Lawrie, P	Repairs to car	1 50	
Martin, H	Haulage	6 20	
McPhee, J	Compensation for land	100 00	
McQuade & Son, Ld, P	Cable, blocks, etc	35 20	
Milne, E	Axle-grease, etc	45	
Muir, J S	Removing barn	50 00	
Newton & Greer Co, Ld	Paint, sign-boards, etc	59 40	
Painter & Son, J E	Coal	14 75	
Parkinson, G	Powder, caps, fuse, etc	103 60	
Plimley, Thos	Auto supplies	9 60	
Powell & Sons, Geo	Auto-oil, blacksmith's coal, etc	166 85	
Prior & Co, E G	Hardware	87 56	
Provincial Police	Motor licence	10 00	
Roelston, E	Gravel	6 45	
Sanderson, R	Blacksmithing	1 65	
Scott & Peden	Express on plough	3 00	
Shawnigan Lumber Co	Lumber	6 25	
Shields, S L	Blacksmithing	37 10	
Shields, E	Auto repairs	49 25	
Smith, R C	Shipping powder	10 00	
Thomas, Mrs E	Washing office towels, etc	9 00	
Throup, C	Nails	85	
Vic Machinery Depot	Gasolene and road-oil	89 10	
	Carried forward	.....	464,457 61

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	464,457 61
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 152.—Esquimalt District.—Concluded.		
Campbell, P J	Road Superintendent.....312 days @ $5.50 (less military pay, $730.00)	986 00	
Peatt, A H	do ..... 92 days @ $5.50; expenses, $ 5.15	511 15	
Helgeson, C A	General Road Foreman .....$125 ; " 15.15	140 15	
Bowden, J L	Clerk to Road Superintendent..... 12 months @ $90 ; " .50	1,080 50	
Pay-lists	Labour and team-work	30,354 04	
			35,999 48
	Vote No. 153.—Fernie District.		
Baker Lumber Co, Ltd	Lumber	201 00	
Beech, B L	Hardware and repairs	105 00	
Berigan, M A	Sharpening picks and repairs, etc	85 00	
Boice, T	Batteries	6 00	
Chardon, Paul	Cedar piling	28 70	
Corbin Coal & Coke Co	Making drift-bolts	2 00	
Cretney, E C	Building bridge, Sheep Creek	100 00	
Crow's Nest Trading Co	Rubber boots, polar permitite, etc	34 75	
Dobson & Willingham	Fuse	5 05	
Dominion Express Co	Three-gear assembly for car and expressage	13 42	
Doyle, A	Sharpening picks, etc., and repairing	42 75	
Dunlop Tire & Rub Gds Co	Covers and tubes	152 20	
Duthie Co	Hardware	211 74	
Elk Lumber Co, Ltd	Lumber	479 73	
Eyre, Frank	Drift-bolts, repairs, etc	26 00	
City of Fernie	Electric light and meter-rent	10 40	
Fernie Iron Works	Ironwork	26 79	
Fort Steele Trading Co	Hardware	7 50	
Hanson Garage	Gears, etc	15 00	
Govt Agent, Fernie	Motor licence, $10; expenses, $3.15	13 15	
Imperial Oil Co, Ltd	Gasolene and oil	128 81	
Kennedy & Monagan	Lumber	48 62	
Kootenay Tel Lines, Ltd	Exchange service and long-distance calls	57 75	
McBride, J D	Powder, rope, etc	155 71	
McDonald, L E	Sharpening picks and mattocks	6 00	
McDougal, A	Cedar poles	175 00	
Minton & Bean	Auto repairs, oil, gasolene, etc	23 80	
Plimley, Thomas	Storage battery, etc	33 85	
Quail, J D	Hardware, etc	392 75	
Rabishaud, Wm	Plank	12 00	
Rock Creek Lumber Co	Lumber	2 56	
Ross, George	Repairs on ploughs	10 50	
Ross Saskatoon Lmbr Co	Lumber and ironwork	146 46	
Trites-Wood Co, Ltd	Tent, rubber boots, etc	42 10	
Western Canada Wholesale Co, Ltd	Nails and spikes	11 50	
Western Grocery	Nails	18 20	
McNeish, Dan	Road Superintendent .....255 days @ $5.50; expenses, $278.61	1,681 11	
Pay-lists	Labour and team-work	29,755 50	
			34,268 40
	Vote No. 154.—Grand Forks District.		
Agostinelli, M	Dynamite, detonators, etc	140 35	
Allen & Norris	Lumber	2 05	
Bertois, J A	Gasolene, hardware, fuse, repairs	70 30	
Boundary Iron Works	Washers	1 05	
B C Telephone Co	Long-distance calls	3 70	
Burns, M H	Haulage	4 00	
Campbell, J J	Blacksmithing	13 45	
Campbell & Liddicoat	do	39 50	
Can Ingot Iron Culvrt Co	Pipe	599 40	
C P Railway Co	Freightage	1 06	
Coker, E J	Making and painting road-signs	9 00	
Delta Motor Transfer Co	Wire cable	40 00	
Gaw, R	Lumber	2 65	
Giant Powder Co	Powder	269 50	
Government Agent	Renewal of motor licence	10 00	
Granby Consol Mining, Smelting & Power Co	Caps, fuse, dynamite, powder, etc	195 25	
Grand Forks, City of	Mica spark-plugs	3 53	
Grand Forks Furniture & Hardware Co	Caps	12 50	
Grand Forks Garage Co	Auto supplies and repairs	225 20	
Grand Forks Transfer	Cartage	10 30	
Hill, H	Powder	2 00	
Imperial Oil Co	Gasolene	16 20	
Jacobs, J	Powder and fuse	18 75	
	Carried forward	.....	534,725 49

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	534,725 49
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	***Vote No. 154.—Grand Forks District.*—Concluded.**		
Kenyon, J	Powder and caps	23 75	
Kettle Valley Ry Co	Freight	1 05	
Liddicoat, W	Coal and blacksmithing	150 10	
Manly, W K C	Caps, fuse, hardware	137 60	
Matthews Bros	Gasolene and auto supplies	75 00	
McCutcheon & McDonald	Repairing cushion for auto	3 50	
McDonald, D J	Haulage	10 50	
McFarlane, F	do	171 33	
Miller & Gardner	Hardware	118 40	
Moen, G	Powder, caps, fuse	10 25	
Mooyboer, J R	Blacksmithing	1 60	
Morrin, Thompson & Co	Hardware	24 05	
Newby, I	Haulage	32 00	
Paulson Bros	Powder, caps, fuse	4 05	
Scott Bros	Haulage	13 45	
Western Pine Lumber Co	Lumber	27 20	
Hutton, F H	Road Superintendent, 239 days @ $5.50; expenses, $49.35	1,363 85	
Mudge, C	Clerk to Road Superintendent, 9 months @ $25	225 00	
Pay-lists	Labour and teaming	22,916 57	
			26,998 99
	Vote No. 155.—Greenwood District.		
Browne, R A	Nails	3 25	
Buckless, F C	Hauling	12 00	
Christensen, M	Lumber	85 71	
Cropley, J M	Blacksmithing	5 85	
Guise, G O	Hauling	1 00	
Gunderson, T O	Repairing carts	2 00	
Harrison, J S	Lumber	119 75	
Kelsey, N B	Handles, fuse	2 75	
Kinney, C	Coal, iron, lumber	23 63	
Lee & Bryan	Powder, caps, fuse, and hardware	575 75	
McArthur Contract'g Co	Blacksmithing	5 75	
McElmon, D R	Dynamite and powder	5 00	
McMynn, J G	Caps, wheelbarrows, hardware	56 65	
O'Donnell, W	Blacksmithing	5 00	
Powers, W	Lumber	86 40	
Rendell, G A	Hardware	28 20	
Rock Creek Trading Co	Hardware, caps, fuse, etc	28 74	
Shillcock, W A	Lumber and nails	4 65	
Thompson & Co, G E	Blacksmithing	3 35	
Roberts, A	Road Superintendent, salary, 188 days @ $5.50; horse allowance, $227; expenses, $146.85	1,407 85	
Pay-lists	Labour and team-work	16,838 35	
			19,301 63
	Vote No. 156.—The Islands District.		
Aitken, Jno	Gasolene, oil, dry cells, etc	12 85	
Anderson, J	Lumber	3 00	
Bennett, Paul	Hardware, etc	21 55	
Berquist, A	Rent of office for Road Superintendent, 9 months @ $5	45 00	
Blandy & Son	Powder, etc	69 40	
Bowcott, W	Groceries	27 50	
Brethour, G	Pilot, launch "Starlight," 138 days @ $3; rent of launch, 5 days @ $2; labour, 5 days @ $3	439 00	
B C Electric Ry Co	Light and meter-rent	80	
B C Pottery Co, Ltd	Sewer-pipe, freight, and cartage	24 65	
B C Telephone Co	Exchange service and long-distance calls	32 21	
Burrill Bros	Fuse, shovels, etc	17 40	
Byers, W D	Launch-hire	10 00	
Calwell, H	Freight	75	
Canadian Explosives, Ltd	Powder, caps, and fuse	20 55	
Can Southern Lumber Co	Lumber	2 35	
Collins, E C	Powder	13 00	
Corbett, W	Powder, etc	63 60	
Cowie Machine Co	Repairs to union engine, etc	30 55	
Cox, W	Towing launch from Mudge Island to Nanaimo	5 00	
Craig, David	Sharpening picks, etc	13 25	
Critchley, J	Stamps and groceries	73 90	
Edwards, R P	Hardware and lumber, etc	21 84	
Genoa Bay Lumber Co	Lumber	73 91	
Georgeson, Geo	Powder, caps, and fuse	68 05	
Goodman, Len	Repairing motor and charging storage-battery	2 75	
Grainer, N	Horse-hire on inspecting	3 00	
Graves, G	Launch-hire, ½ day	3 00	
	Carried forward	.....	581,026 11

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	581,026 11
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	***Vote No. 156.—The Islands District.*—Concluded.**		
Gregert, C	Hardware	3 85	
Harris, Howard B	Lumber	4 60	
Harvey, Mrs M A	Launch-hire 1 month @ $30; 8 months @ $60	510 00	
Hickman-Tye Hdware Co	Wire rope and freight	14 98	
Higgs, L S	Salvaging and towing launch	15 00	
Holt, W	Hardware	9 15	
Hunter, P	Powder, etc	6 70	
Ingamells, H	Provisions	9 80	
Jackson, T	Right-of-way, Brantford Road	200 00	
Jameson, Rolfe & Willis	Propeller wheel and shaft	81 12	
Japanese Mark	Towing launch to Pender Island	5 00	
Jeune & Bros, Ltd, F	Flag and postage	2 55	
Jim (Indian), Edward	Gravel	15 00	
Johnstone, J	Hardware	18 31	
Local Butchers, The	Meat	31 95	
Martin, H	Cartage, office material	1 00	
McAfee, W A	Blacksmithing	24 55	
McDonald, A	Gravel	36 50	
McDonald, C	Meals and bed	2 50	
McDonald, C J	Hardware and freight	8 35	
Morton, W H	Powder, fuse, and detonators	30 55	
Mouat Bros & Co, Ltd	Lumber and hardware	17 84	
McNaught, J	Horse-hire 45 days @ $2.50	112 50	
N Saanich Brick & T Wks	Drain-tiles	5 25	
Odberg, B	Blacksmithing	33 30	
Pearson, Geo S	Hardware	71 70	
Pearson, T	Provisions	17 25	
Percival, S	Hardware and provisions	104 90	
Prior & Co, Ltd, E G	Hardware and freight	20 33	
Reid, G	Rowboat, launch-hire 2 hours @ $1.25	14 50	
Robertson, D	Hauling	5 00	
Salt Spring Is Trading Co	Hardware, gasolene, etc	33 65	
Sidney Rub Roofing Co	Road-oil and drum	367 95	
Sydney Trading Co	Hardware, gasolene, etc	389 55	
Smith, J R	Blacksmithing	3 45	
Ingamells, H	Provisions	26 75	
Vic Lumber Mfg Co, Ltd	Hardware	1 45	
Williams, C F	Repairs to launch and wind-shield	6 00	
Wood, H J	Half-pay *re* accident 78 days @ $1.50; 52½ days @ $3	274 50	
Trowsse, A R	Road Superintendent 193 days @ $5; expenses, $99.75	1,064 75	
Knight, R	Clerk to Road Superintendent 6 months @ $75	450 00	
Pay-lists	Labour and team-work	20,153 39	
			25,304 33
	Vote No. 157.—Kamloops District.		
Adams River Lbr Co, Ld	Coal and horse-shoes	3 00	
Armour, Sam	Hay	18 08	
Arnell, M	do	11 25	
Arrow Lakes Lbr Co, Ld	Hardware	2 35	
Baker, H J	Hay	4 50	
Barnes, W F	Lumber, nails, etc	492 64	
Barriere Farmers' Inst	Powder and fuse	15 55	
Barriere Mercantile Co	Oats, stove, hardware, etc	155 90	
Barriere Store	Hardware	2 95	
Bedard, A	Hay	12 00	
Bedell, H E	Oats	16 14	
Bell, R B T	Hay	15 50	
Bell, Wm	Oats	2 00	
Bennett, J	Hay	2 50	
Blain, David	do	4 00	
Blais, Paul	do	13 75	
Blakeley, John	do	21 91	
Blanc, Joseph	do	2 25	
Blichfield, Emil	Lumber	17 64	
Bradley, Robt F	Gasolene, hardware, etc	66 35	
Brisco, R	Hay	3 00	
B C Telephone Co, Ltd	Exchange service, $31.50; long-distance calls, $47	78 50	
Brooke, S	Hay	43 44	
Brown, Mrs Geo	Rent of tool-house	8 00	
Bruhn, R W	Phone messages, meals, fares, etc	125 87	
Brydon, L C	Hay	3 50	
Buchan, W F	Auto supplies and repairs	108 45	
Bulman, Jos	Hay	14 00	
Butler, Geo	Oats	18 54	
Buysse, De Leenheer	Hay and oats	44 13	
Canadian Explosives, Ltd	Powder, dynamite, and fuse	536 50	
	Carried forward	.....	606,330 44

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward	.....	606,330 44
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 157.—Kamloops District.—Continued.		
Canada Ingot Iron Culvert Co, Ltd.	Iron culverts	398 10	
Can Northern Express Co	Express on box	60	
Canadian Northern Ry	Freight	24 11	
Can Pacific Railway Co	Rent, $6; freight, $220.97; labour, $217.18	444 15	
C P Ry Co's Telegraph	Telegrams	2 77	
Carr, A C	Hardware	31 15	
Cherry Creek Ranch	Hay	3 00	
Clements, J H	Can of carbonvoid	1 50	
Clifford, J W	Blacksmithing	60 16	
Conner, John R	Hay	6 00	
Cook, F P	Powder, caps, fuse, and hardware	254 30	
Cornwall, H	Hay	5 50	
Cotton, A H	do	75	
Cowan, C G & Penrose, E	Rent	180 00	
Crawford, R Z	Hardware	17 85	
Dalgleish, N S	Gate, rope, cable, etc	281 27	
Dee, C A	Oats and hay	3 75	
Dom Govt Telegraphs	Phone	85	
Dominion Express Co	Express	90	
Duck, A W	Hay and oats	19 99	
Dunne, W J	Lumber	5 41	
Ellis & Co, W J	Sheave-wheels and labour	11 30	
Fadier, Chas	Hay	3 75	
Fennell, Geo	Gasolene, lumber, hardware, and hay	182 23	
Ferguson, Wm	Oats	8 55	
Finlayson & Co, M J	Gasolene, hardware, etc	95 26	
Fraser, D	2 shovels	2 50	
Frost, R S	Lumber	4 80	
Galloway, A	Horse-medicines	7 04	
Giant Powder Co, Ltd	Powder	325 00	
Goudreau, Andre	Hay	3 45	
Granite Trading Assn, Ld	Handles and axle-grease	1 55	
Greaves, Mrs J B	Hay	2 00	
Greenhow, J B	Oats	5 00	
Guichon, Joseph	Lumber, hay, oats, etc	66 55	
Hagen, O S	Lumber	50 30	
Hargreaves, W	Blacksmithing	20 00	
Harris, L	Hay and oats	5 75	
Hedley Shaw Milling Co.	Bran	9 60	
Hoole, E W	Hardware, gasolene, etc	53 00	
Howse Co, The A E	Dynamite	15 75	
Hudson's Bay Co	Coarse salt, canvas, etc	9 70	
Humphrey, F L	Hay	12 00	
Imperial Oil Co, Ltd	Gasolene	192 98	
Jackson, Wm	Lumber	4 20	
Jagoe, J T B	Hay and oats	22 50	
Jones, E H	Hay	5 00	
Jowsey, F J	do	6 75	
Kamloops, City of	Electric light, water, etc	31 40	
Kam Feed & Flour Supply	Hay	43 50	
Kamloops Harness Co	Harness and repairs	22 05	
Kam Plum & Heating Co	Cook-stove, etc	12 30	
Kamloops Transfer Co	Cartage	50	
Kelly, F A	Blacksmithing	152 85	
Kingscote & Birchard	Powder, caps, fuse, and hardware	5 05	
Knapp, Ralph S	Blacksmithing	13 10	
Laidlaw, T	3 horses, grazing	13 50	
Latremouille, H	Lumber	61 41	
Lawrence Hardware Co.	Survey of wagon-road, meals, hardware	105 55	
Lyons, R H	Oats	13 50	
Maple Leaf Milling Co	Bran and oats	222 26	
Mallery Drug Co, Ltd	Oil, tar, and iodine	1 35	
Marlatt & MacKenzie	Stove, tent, etc	56 30	
Martin, F	Lumber	24 04	
Michell, J R	Hay and oats	34 42	
Milton, John	Hay, oats, blacksmith's coal, etc	148 42	
Mizon, J	Caps and fuse	9 15	
Moilliet & Finley	Rowboat, hardware, etc	33 15	
Morrison, John S	Hay	4 00	
MacLennan, Jas	do	21 50	
McCannell & Son, J	Horse and buggy hire	2 00	
McClure, John	Hay and oats	14 70	
McConnell, A	Tents, hardware, etc	110 95	
McDonald, J F	Hay and oats	20 88	
McLeod, William	Oats	4 29	
Newnes, W	Blacksmithing	5 70	
Nor Construction Co, Ld	Wire rope	13 65	
	Carried forward	.....	606,330 44

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		606,330 44
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 157.—Kamloops District.—Concluded.		
Notch Hill Lbr Syndicate	Lumber	5 63	
Palmer Bros	Rent of tool-house	4 00	
Patterson, F	Hay	3 20	
Paxton (V S), J D	Professional services	6 00	
Pene, A	Hay and oats	31 36	
Pratt, H	Hay	4 05	
Pringle, A J	Lumber, blacksmithing, hay, oats, etc	204 60	
Prior & Co, Ltd, E G	Hardware, scrapers, plough, etc	252 53	
Pritchard, W P	Hardware	10 65	
Provin Police (W Owen)	Motor licences	40 00	
Rabie, Joseph	Hay	568 47	
Ray, Thomas	Oats	9 00	
Reedman, John	Gasolene and hardware	13 85	
Reilly & Co, I R	Lumber and nails	35 35	
S-A-F-E, Ltd, The	Cable, grindstone, etc	19 25	
Salmon River Supply Co	Hay, oats, harware, etc	52 50	
Scouten, W H	Lumber	12 30	
Smith, A	Oats	207 06	
Smith, Thos H	Hay	1 00	
Smith & Son, W T	Gasolene, hardware, etc	77 10	
St Laurent, J	Hay	3 00	
Strathearn Ranch	Oats	28 35	
Sturdy Hrdwre Co, The	Plough, freight, etc	14 24	
Taite, H B	Hay	3 00	
Talbot, A G	Hay, barbed wire, etc	48 20	
Teagle, T F	Cartage	50	
Tedder Lbr Co, The J E	Lumber	96 55	
Thomson, A	Fare, meals, and bed	16 05	
Turner, Robt	Powder, caps, fuse, etc	315 66	
Tyrrell, Arthur	Hay	167 20	
Ward, A B	Auto supplies and repairs	817 67	
Whiteford, J	Hay and lumber	16 70	
Wickstrom, J	Blacksmithing	4 80	
Wilcox-Hall Co, Ltd	Tents, stoves, oats, wire, slusher, grader-blades, etc	525 26	
Woodward, W H	Hay	2 10	
W A Wyllie, P M	Stamps, $42; box-rent, $4	46 00	
Wyse & Harmon	Blacksmithing	36 50	
Wyse, David	do	15 00	
White, Wm	Road Superintendent..... 243 days @ $5.50; expenses, $360.60	1,697 10	
McNicol, N	Clerk to Road Superintendent..... 9 months @ $75	675 00	
Pay-lists	Labour and team-work	45,700 58	
		57,719 64	
	Cr. By refunds, Mackenzie, Mann & Co., for work done by Government on roads as follows:—		
	North Thompson, east side $400		
	Tranquille Main Road 126		
		526 00	
			57,193 64
	Vote No. 158.—Kaslo District.		
Alexander, J	Teaming	10 00	
Andrews & Co, R	Hip-boots	7 50	
Archer, F E	Cook-stove, crockery, hardware	50 50	
Bailey, J R	Painting tool-house	35 00	
B C Telephone Co	Long-distance calls	13 40	
Burden & Watson	Lumber	40 07	
Burrows, G	Blacksmithing	96 25	
Byers, Giegerich, Green Co	Slush-scrapers, coal, hardware, fuse, tent, etc	1,221 21	
Cameron, J R	Repairs to tent	3 00	
C P R Telegraph Co	Telegrams	16 47	
C P Railway Co	Freight	12 96	
Cleveland, S	Hauling	78 50	
Cork Province Mines, Ld	Dynamite	135 00	
Craig, A M	Powder, fuse, caps, etc	196 15	
Crawford Bay Store	Hardware and livery-hire	33 41	
Currie, J M	Making trail	200 00	
Cummings, A C	Powder, caps, fuse, hardware	275 20	
Elec Blue Print & Map Co	Pocket Abney level	14 65	
Florence Silver Mining Co	Powder, caps, fuse, etc	16 00	
Fort & Sutton	Carting	1 00	
Giegerich, H	Hardware	5 27	
Gerrard Trad & Supply Co	do	1 00	
Hanna, L	Hauling	45 00	
Healey, J	Packing supplies, etc	122 50	
Hooper, T	Compensation for damage through blasting	5 60	
	Carried forward		663,524 08

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	663,524 08
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 158.—Kaslo District.—Concluded.		
Houghton, J E	Hardware	26 99	
Jackson Basin Zinc Co	Constructing road	400 00	
Johnson, A G	Hardware, powder, fuse, $10.70; packing supplies, $3.75	14 45	
Kaslo Transfer Co	Cartage and freight	85	
Lane, T H	Haulage and freight	3 80	
Le Beau, F J	Hardware	42 65	
Mallock, C	Cartage, etc	12 00	
Matson, J	Powder	4 50	
McGregor, P	Strap and hames	6 45	
New Canadian Metal Co	Powder, fuse, caps, coal	13 60	
Retallack & Co, J L	Powder	3 00	
Rogers, T	Enamelled plates, cutlery, etc	4 40	
Ryley, N	Half-pay owing to accident, 12 days @ $1.50; steamboat fare, $1.75; medical attendance, $2	21 75	
Simpson, Wm	Subsidy for launch service, Duncan River, $100; crockery, hardware, dynamite, etc., $112.35	212 35	
Strachan, J	Cartage and livery-hire	100 50	
Strathearn, O	Launch-hire	10 00	
Sutton & Foote	do	20 00	
Trout Lake Livery & Transfer Co	Powder	14 00	
Utica Mines, Ltd	Repairs to Utica Road	140 50	
West Canada Timber Co.	Lumber	126 86	
Fingland, J J	Road Superintendent, 250 days @ $5; expenses, $720.60	1,970 60	
Cockle, J W	Clerk to Road Superintendent, 6 months 10 days @ 90	569 00	
Pay-lists	Labour and team-work	28,673 97	
			35,027 86
	Vote No. 159.—Lillooet District.		
Armstrong Nurseries	Hay	6 40	
Baker, H J	Oats	6 40	
Baker, A S B	Hay	10 00	
Barton, T	Cordwood	4 50	
Becher, F M	Meals, bed, and hay, shovel	4 00	
Bell, E E	Hay and oats	1,151 15	
Bell, J S	Freightage	3 08	
Bell, W W	Repairs to auto	5 00	
Beloud, G	Oats	175 00	
Benefield, —	Wood	9 00	
Bennett, J	Hay and stabling	7 00	
Bishop, J	Hay, etc	20 50	
Boitano, A	Meals and bed, horse-feed	19 00	
Boston, P	Hay	16 50	
Botterill, M	Hire of auto and services, driving Superintendent, supplying lumber	361 00	
Boyd, M	Hay, $2; auto supplies, freight, etc., $22.25	24 25	
Boyd & Borrowman	Meals, feed to horses, etc	70 50	
Boyd, Mrs M	do "	7 75	
Bridge Creek Cattle Rch	do " hardware, etc	58 20	
Buckle, John	Livery, etc	3 50	
Carson, G	Auto-hire	13 00	
Carson, W G	Hay, pasture, meals, and bed	235 40	
Chilcotin Trading Co, Ld	Hay, gasolene, hardware	45 52	
Christian, J M	Meals, bed, horse-feed	5 70	
Christian, H M	do "	5 85	
Clark, Mrs M	do "	22 00	
Clarke & Co	Spirits of nitre, syringe, etc	2 75	
Coldwell & Drinkell	Meals and horse-feed	31 50	
Coldwell, H	Hay	25 00	
Colpitts, L M	Meal and horse-feed	3 50	
Craig, D	Auto-hire, $33; freightage on case, $3	36 00	
Cullen, D D	Haulage	10 50	
Cullen, G G	Haulage and freight	10 18	
Cunningham, Mrs M	Meals, beds, horse-feed	6 00	
Davis, F	Livery-hire	8 00	
Darcy, E	Cartage and freight	36 16	
Dickey, J	Rail fare	1 15	
Doering, C	Horse-feed, lumber	10 68	
Dougherty, C A	Horse-feed, meals	4 00	
Draney, R	do "	8 55	
Dowes, G	Hardware	4 50	
Dumond, M	Hardware, scraper-blades, slush-scrapers, etc	428 60	
Durban, B	Haulage	8 80	
Elliott, M H	Auto-hire	15 00	
Engeman	Auto supplies, caps, fuse, dynamite	113 50	
Fairbairn, G	Meals, horse-feed	15 00	
Felker, G H	Meal, "	1 50	
	Carried forward	.....	698,551 94

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	698,551 94
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 159.—Lillooet District.—Continued.		
Ferguson, E	Oats, hay, meals, etc	35 00	
Forbes, G	Hay	32 50	
Fountain Ranch	do	21 60	
Fraser, R	Harness, gasolene, hardware	1,347 63	
Garigan, P	Shovel	1 25	
Govt Telegraph Service	Telegrams	92 50	
Grinder, W	Hay	40 50	
Gottfriedsen, F	Blacksmithing	23 00	
Hallar, G	Meal and hay	1 00	
Hamilton, R	Oats	75 00	
Hance, Mrs O T	Horses, stabling, and feed	15 00	
Hannon, L C	Beds, meals, grain, hay	25 45	
Hannon, T	Gasolene and auto-repairs	4 20	
Hardie, T	Livery-hire	25 00	
Harrington, J W	Hay, coal-oil	13 70	
Harvey, Bailey, Ltd	Bran, oats, gasolene, oil	96 80	
Highland Ranch	Meals, horse-feed, baled hay, etc	45 22	
Hollman, S E	Hay	6 00	
Horan, H P	Repairs to harness	114 55	
Huston, W O	Hay	1 00	
Innis, A	Expenses *re* moving camp	55 05	
Jarvis, A	Meals, beds, horse-feed	30 50	
Johnson, C E W	Hay	5 00	
Jones, W W	Hay, meals, horse-feed, dynamite, etc	281 17	
Kerr, I N	Timothy hay, $15; horse-feed, $13.20	28 20	
Kinder, F H	Hardware, powder, and caps	5 50	
King, J	Blacksmithing	6 00	
Koster, H	Oats	113 36	
Kostering, C	Oats and hay	9 00	
LeBourdais, J	Postage-stamps, $40; rental of mail-box, $5	45 00	
Larson, H	Bed, meals	1 50	
Lee, G	Hay, grain	70 00	
Lilly, R	Storage	5 00	
Lunn, E C	Livery-hire	18 00	
Lush, Chief C (Indian)	Erecting fence	50 00	
Mearon, S	Blacksmithing	18 00	
Mecheal, F	Meals and horse-feed	4 00	
Meldrum, T	Horse-feed	2 00	
Melville, D B	Freight and hauling, $15; oats, $129.69	144 69	
Menier, C	Meals, beds, hay	15 50	
Mitchell, F	Hay, etc	16 00	
Munroe, W D	Meals, bed, horse-feed, nitre, etc	4 75	
Murdoch, J	Lumber	38 00	
Mussens, Ltd	Share with bolts for grader	11 90	
Macfarlane, S A	Water	8 00	
McCarthy, M A	Meals, bed, horse-feed	3 50	
McDonald, Mrs C F	do	2 50	
McDonald, D	Horse-shoes	2 00	
McDougall, O	Freightage	4 95	
McIntosh, Mrs A	Meals, beds, horse-feed, etc., $17; team-hire, $18	35 00	
McKinley, E D	Oats	51 50	
McKinley, A J	Meals, beds, horse-feed	8 00	
McMillan, J	Logging-chains, $6.24; looking after horses, 1 month, $60	66 24	
McNeil, G	Meals, beds, horse-feed	16 00	
McNeil, L M	Meals, launch-hire, livery, etc	24 30	
Neas, A	Livery-hire, hay, coal-oil	18 10	
Noel, A F	Powder, caps, fuse	3 50	
Ogden, I	Hay	2 00	
Ohn & Dunning	Nails, horse-shoes	1 10	
P G E Railway Co	Freightage	11 50	
Palombi, T	Repairs to auto	7 00	
Payne, C J	Hay, oats, pasturing	280 02	
Phair, C A	Wire fencing, hardware, stationery, etc	299 65	
Pigeon, P F	Meals, bed, horse-feed	16 75	
Place, J S	Hay, oats, rivets, bolts, etc	34 20	
Pollard, C R	Auto-hire	15 00	
Rebagliati, F B	Fare	2 50	
Ragan, Mrs H	Meal and bed	2 50	
Raines, J	Freight	3 00	
Reynolds, I	Oats	121 90	
Riley, Mrs W	Hay	8 00	
Ritchie, W S	Blacksmithing	462 67	
Seaton Lake St'mboat Co	Fares and freight	76 00	
Scallon, F	Horse-feed	2 00	
Smith, C H	Freightage	29 95	
Smith & Bryson	Coal and chisel	4 00	
Spetch, S W	Hardware	5 75	
	Carried forward	.....	698,551 94

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	698,551 94
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 159.—Lillooet District.—Concluded.		
Stubbs, F	Powder, caps, fuse	8 00	
Swanson, B S	Fare	5 00	
Tremblay, E	Freightage	3 96	
Tresseria, A	Meals, beds	5 00	
Tretheway, J	Oats, hay	63 80	
Tretheway, J O	do	151 15	
Ulrich, G	Teaming	30 00	
Walker, J	Meals, beds, horse-feed	33 25	
W Canadian Ranching Co	Hay, oats, meals, beds, etc	69 00	
White, G	Hay	11 00	
Whitley, A J	Hay and grain	51 75	
Whitney, E E	Blacksmithing	20 75	
Williams, Mrs A W	Hay, meals	65 29	
Wilson & Co, T	Oats, hardware, etc	90 80	
Wright, J C	Meal, horse-feed	1 00	
Wright Bros	Timothy-hay	44 85	
More, J K	Road Superintendent, 9½ months @ $175; expenses, $282.75	1,945 25	
Barton, D	Clerk to Road Superintendent, 9 months @ 65	585 00	
Pay-lists	Labour and team-work	43,245 71	
			54,125 73
	Vote No. 160.—Nanaimo City District.		
Auto Transfer Co	1 dry battery	3 00	
B C Telephone Co	Rent of phone, 2 months @ $3; calls, $1.65	7 65	
Grayshon (R S S), J R	Blacksmithing	10 20	
Imperial Oil Co, Ltd	Gasolene and freight	28 53	
McCape, Mrs Priscilla	Sewer-pipe and drain-tile	38 50	
New Ladysmith Lmbr Co	Lumber	3 26	
Randle Bros	Hardware	63 82	
Sampson Motor Co	Auto-repairs, etc	21 30	
Western Fuel Co	Chain, gravel, etc	29 20	
White, Paul	Gravel	31 60	
Wilkinson, Alf	Coal, etc	3 90	
Wright & Son, R	Repairs to auto-fender	2 25	
Nicholson, D	Road Superintendent, 53 days @ $5.50; expenses, $11.75	303 25	
Galloway, Jr, A	Foreman, 22 " 4.50; " 16.80	115 80	
Bain, John	Clerk to Road Superintendent, 2 months @ 85	170 00	
Pay-list	Labour and team-work	6,821 00	
			7,653 26
	Vote No. 161.—Newcastle District.		
A & B Livery	Expressage	21 50	
Auto Transfer Co	Tires	82 30	
Bennett, Paul	Padlock and files	1 00	
B C Telephone Co, Ltd	Exchange service, $23.50; calls, $11.75	35 25	
Cairns, J	Gravel	25 60	
Canadian Collieries (Dunsmuir), Ltd	Dynamite, etc	8 00	
Canadian Explosives Ltd	Powder, detonators, and fuse	264 33	
E & N Railway Co	Balance, corrected way-bill	52	
Galloway, Jr, Alex	Foreman, expenses	9 70	
Green (B C L S), J B	Services and expenses	24 05	
Ham, J	Gravel	11 40	
Hargreaves, H	Repairing radiator	2 50	
Hoskin, E A	Teaming powder	7 00	
Imperial Oil Co	Gasolene, grease, and oil	93 54	
Kent, Geo T	Repairing window	1 00	
Knight, J A	Photos, printing, and envelopes	4 50	
Ladysmith Hardware Co	Hardware, etc	61 95	
Ladysmith Water Co, Ld	Water rates, 12 months @ $1.25	15 00	
Leiser & Co, Simon	Hardware	7 45	
Leverton, Geo E	Overhauling typewriter	4 50	
Matheson, D J	Hire of launch	5 00	
Maysmith, S M	Grader-blade and bolts	9 00	
Michael, W	Gravel	7 20	
Morrison, Murd	do	90	
Nanaimo Transfer	Auto-hire	2 50	
New Ladysmith Lbr Co	Lumber	5 95	
Palmer, E J	Gravel	3 40	
Pearson & Co, Geo S	Tent and nails	14 00	
Peterson, Chas	Hardware	40 55	
Plimley, Thomas	Spark-plugs	4 00	
Porter, G R	Gravel	32 70	
Postmaster	Box-rent and stamps	10 00	
Smith, C E	Gravel	16 00	
	Carried forward	.....	760,330 93

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	760,330 93
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	***Vote No. 161.—Newcastle District.*—Concluded.**		
Thompson Cash Grocery	Coal-oil	1 30	
Wallace, Wm	Gravel	3 50	
Weaving, S	Wood, cartage, and freight	22 46	
Wright & Son, R	Repairs to auto and blacksmithing	22 20	
Nicholson, D	Road Superintendent 172 days @ $5.50; expenses, $85.59	1,031 59	
Bain, John	Clerk to Road Superintendent 5 months @ $85; 12½ days @ $3	462 50	
Pay-list	Labour and team-work	20,159 50	
			22,535 34
	Vote No. 162.—Okanagan District.		
Atkins, F	Powder	11 00	
Andre, L E	Blacksmithing	45 50	
Arbuckle, Dr	Consultations, etc	50 00	
Beatty, Alex	Gasolene, oil, etc	24 13	
Brown, J R	Fence-posts	50 30	
Burbank Motor Co, Ltd	Repairs	35	
Burnyeat (B C L S) J P	Surveying and expenses	106 50	
Campbell, James I	Repairs to storehouse and material	100 55	
Campbell, Bros	Tubing, etc	55	
Canadian Pacific Ry Co	Freight, etc	140 30	
Cooper, F	2 pairs rubber boots	11 50	
Carswell, R	Lumber, etc	139 55	
Christien, Thomas	Cartage	1 00	
Christien, C J	do	1 00	
Conn, A J	Cartage on tools	3 75	
Cossitt & Lloyd	Duty	37 90	
Craig, W	Cartage	2 00	
Cutbill, S N	Blacksmithing	12 85	
Coldstream Municipality	Grant	3,000 00	
Darkis, Scott	Blacksmithing	3 75	
Dominion Glazed Cement Pipe Co, Ltd	Cement pipe	520 48	
Dom Road Machinery Co	Plates for rock-crusher	9 00	
Edgar, J M	Electric fixture	60	
Elliott, A B	Shovel	1 25	
Enderby Hardware Co	Barb wire and hardware	105 51	
Enderby, Corp of City of	Erecting stand-pipe, etc	9 90	
Fetterley, V	Blacksmithing	4 35	
Fraser, J A	Motor licence	10 00	
Fulton Hdwre Co, Ltd	Hardware	31 80	
Galbraith & Speer	Plough, wire, etc	91 20	
Glenn & Son, W R	Ploughshares, beam, etc	12 10	
Govt Telegraph Service	Telephones	2 20	
Graham, E C (Prov Const)	Horse and rig hire	3 00	
Handcock, C S	Caps and fuse	7 95	
Haug, W	Cement and nails	1 35	
Heywood, A J	Repairing approach to bridge	11 00	
Holland, August	Half-pay owing to accident 153 days @ $1.25	191 25	
Holland, August	Payment in full of all claims for injuries sustained	250 00	
Holland, D	Nursing A. Holland	17 50	
Imperial Oil Co	Gasolene and polarine	205 96	
Kelowna Carriage Works	Blacksmithing	61 25	
Kelowna Gar & Mach Wks	Pressure-gauge	1 25	
Kirk (B C L S), J A	Establishing grade	17 00	
Lawson, Ltd, Thos	Rubber boots	23 25	
Leckie, D	Hardware	56 84	
Leeper, W C	Repairing tire	2 75	
Lumby Saw Mills Co, Ltd	Lumber	143 37	
Mack, E J	Wood, coal, etc	34 05	
Mara Trading Co	Hardware	19 15	
Megaw Motor Co	Auto supplies and repairs	425 93	
Megaw, W R	Factory-cotton	1 25	
Middleton, Wm	Gravel	67 13	
Morrison-Thompson Hardware Co, Ltd	Hardware	44 05	
Munson & Son, R	Lumber	73 51	
McAlpine, T J	Fares, meals, bed, etc	31 15	
McGuinness, O A	Dynamite	10 00	
McMahon, James	Blacksmithing, hardware, etc	75 66	
McManus, D	Powder	91 30	
Naramata Supply Co	Shovel	1 35	
Neil & Cryderman	Coal, wood, fence-posts, hardware, etc	1,327 10	
Okanagan Saw Mills, Ltd	Lumber, crank-shaft, etc., hoist-pinion	131 91	
Okanagan Telephone Co	Telephones	134 15	
O K Lumber Co, Ltd	Lumber	202 74	
Oyama Store, The	Nails, machine-oil, etc	2 65	
Pell, W G	Blacksmithing	62 00	
	Carried forward	.....	782,866 27

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	782,866 27
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	***Vote No. 162.—Okanagan District.*—Concluded.**		
Pelly (B C L S), R S	Compensation for land	33 33	
Postmaster	Stamps	45 00	
Rea, H	Blacksmithing	18 10	
Reynolds, F S	Ploughshares and plough-handles	33 60	
Richland Store	Hardware	3 95	
Robertson & Hackett	Lumber	232 48	
Schultz, H	Repairs and supplies	16 75	
Shanks, E C	Gravel	17 85	
Shields & Co	Hardware, stove, etc	84 29	
Smeeth, B	Ratchet-drill	3 00	
Smith Lmbr Co, Ltd, S C	Lumber and wind-shield	21 61	
Smith, Chas E	Repairs to motor-car	24 00	
Spallumcheen Municipity	Expenditure on trunk roads	3,976 49	
Stocks, A M B	Caps, fuse, etc	2 05	
Stuart, A K	Services and expenses *re* inspection of plant	299 46	
Summerland Supply Co	Gasolene, wire, lumber, hardware, etc	77 83	
Thompson & McCall	Hardware	43 27	
Tomkinson, H	do	3 85	
Twigg, H T	Building fence and material	25 00	
Typewriter Co, L E	Cleaning typewriter, etc	9 00	
Vernon Carriage Works	Welding grader, axle, lumber	24 50	
Vernon, Corp of City of	Electric light, $17.65, ; water, $10 ; powder, caps, etc., cement pipes	331 15	
Vernon Hardware Co, Ld	Dynamite, powder, caps, fuse, hardware, etc	3,184 68	
Vernon Hotel	Board	7 75	
Wade, A H	Powder, caps, and fuse	36 00	
Watkin's Garage	Repairs to motor, material, etc	187 80	
Watkin, J	Gasolene, repairs to motor, etc	11 07	
Weeks Bros	Plough-beam, casting, and express	9 00	
White Valley Irrigation & Power Co	Second-hand wagon	45 00	
Wilcox-Hall Co, Ltd	Cable-clamps	60	
Williams, Dr	Operation and daily services *re* Holland	250 00	
Williams, H	Blacksmithing	2 80	
Worth, H	Hire of wagon, and lumber	4 50	
Young, T B	Scrapers, plough, ploughshares, etc	88 90	
Lang, Hamilton	Road Superintendent.....266 days @ $5.50; expenses, $151.98	1,614 98	
Coxall, C	Clerk to Road Superintendent.....262 " 3.50; express, .60	917 60	
Pay-lists	Labour and team-work	53,609 37	
		.....	73,561 28
	Vote No. 163.—Revelstoke District.		
Abrahamson, O W	Lumber	2 90	
Armstrong & Co, Messrs	Tents and launch, carrying powder	183 80	
Bourne Bros	Hardware	41 23	
Can Ingot Iron Culvert Co	Culverts	288 00	
Canadian Pacific Ry Co	Rent of site for wagon-road, $3; freight, $54.40	57 40	
Cummins, A C	Powder, etc	90 15	
Giant Powder Co of Can	Stumping-powder	325 00	
Gordon, R (Govt Agent)	Auto licence	10 00	
Hamilton, Wm	Ground lease, powder-house	5 00	
Heffren, Herbert	Boat-hire	9 00	
Hume & Co, C B	Hardware and axle-grease	6 80	
Johnson, Cecil	Boat-hire	6 80	
Lawrence Hardware Co	Hardware and gasolene	133 58	
Macey Office Equip Co	Cabinet and guides	4 75	
McBean, E	Work, Carnes Creek Trail.....20 days @ $3	60 00	
McGaghran, J B	Launch-hire	19 00	
McLean, Dr E H S	Professional services, dressing Sam McCollough's hand	7 50	
McMahon, Samuel	Cutting drift-bolts, etc	4 35	
Olson, P J	Dynamite, fuse, and caps	40 15	
Palace Livery Co	Auto supplies, repairs, etc	411 05	
Payne, Arthur	Expressage on tools	45	
Young, Frank	Rent of post-office box	6 00	
Reid & Co, W R	Hardware	92 40	
Revelstoke Lbr Co, Ltd	Lumber	112 83	
Sawyer, R H	do	9 10	
Shaw, J	Hire of plough and scraper	10 00	
Sturdy Hrdwre Co, The	Hardware	2,036 46	
Sutherland, J P	Cartage and freight	50 25	
Trout Lake Livery & T Co	Dynamite, etc., keeping road open	119 00	
Williamson, George	Purchase of ½ acre for road and recompense for wood burned	50 00	
Trimble, E	Road Superintendent.....164 days @ $5.50; expenses, $203.40	1,054 90	
McIntyre, James	Clerk to Road Superintendent.....3 months @ 75	225 00	
Paget, E W B	do .... 1 month @ $75; 5 days @ $3; expenses, 10.80	100 80	
Parker, H J	do .....1 month @ 30	30 00	
Pay-lists	Labour and team-work	32,526 80	
		.....	38,130 45
	Carried forward	.....	894,558 00

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	894,558 00
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 164.—Richmond District.		
Beasly, P M	Powder	6 00	
B C Telephone Co	Exchange service, $30; long-distance call, $19.50	49 50	
Canadian Explosives, Ltd	Powder, fuse, caps	1,634 04	
Chief Constable	Motor licence and renewal	15 00	
Consolidated Motor Co	Storage of auto, 12 months @ $10; auto supplies and repairs, $410.70	530 70	
Corp of Dist of N Vanc	Government grant for work on Capilano Road	1,500 00	
do " S Vanc	do " Fraser Avenue	2,000 00	
do Richmond District	Balance, Government grant for work on No. 19 Road, Lulu Island	1,349 05	
Cowan, R T	Repairs to approach to float	5 00	
Douley, R	Hardware	11 25	
Dowd, E	Fares	7 00	
Dumond, M	Hardware, steel rope, etc	152 35	
Elliott & Hewett	Services *re* survey of road, Bowen Island	66 95	
Flett, Ltd, J A	Hardware	159 03	
Fraser & Carpenter	Hardware, oil, etc	157 18	
Gilley Bros, Ltd	Crushed rock	702 74	
Gonsalves, J, & Dames, T	Wheelbarrow and nails	8 00	
Gugin, W J	Half-pay owing to accident ..... 39 days @ $1.50	58 50	
Imperial Oil Co, Ltd	Gasolene, oil, etc	88 10	
Jackson, L S	Launch-hire	25 00	
Jones & Son, Ltd, C H	Tents	99 35	
Judd, H	Cartage	18 05	
Leslie Lumber Co	Lumber	1,196 90	
Marine Navigation & Engineering Co, Ltd	Wharfage, 12 months @ $3.50; paint, oil, waste, $21.65	63 65	
Martin, Findayson & Mather, Ltd	Cable and freight	28 35	
Mills, H H	Making inventory of tools	5 00	
Munro, A	Hay	1 00	
Murphy Bros	Coal, file	45	
McArthur & Co, Ld, W T	Chain	22 48	
McBride, Mrs E	Salary of late E. McBride as Road Superintendent ..... 19 days @ $5.50	104 50	
McDonald, J A	Making bolts, etc	3 00	
McCallum, D	Rent of boat ..... 14 days @ $1	14 00	
McKechnie, Dr R E	Professional services *re* W. J. Gugin's accident	25 00	
McNeil, Wm	Repairs to road-grader	2 50	
McQuarrie, F P	Sawing tree, etc ..... 4 days @ $3	12 00	
Newport Saw Mills, Ltd	Lumber	85 36	
N Vancouver Cartage Co	Haulage	1 00	
N Vancouver Lumber Co	Lumber	2 52	
Nye, T S	Labour on bridge	130 00	
Owen, W R	Hardware	57 15	
Paine & McMillan	Powder, fuse, caps	366 25	
Pemberton Trading Co	Powder, caps, fuse, hardware	117 75	
Perkins, H	Lumber, etc	66 77	
Postmaster, Vancouver	Postage-stamps	10 00	
Roberts, L H	Lumber	12 00	
Robertson & Hackett	do	99 03	
Sechelt Seaside Resort Co	Oil, hardware, lumber, rent of shack, etc	70 60	
Shell Company	Gasolene	25 80	
Sims, G	Repairs to boat	22 50	
Steveston Supply Co, Ld	Spikes	5 10	
Stuart, H H	Lumber	335 07	
Thulin Bros	Freight on powder	7 50	
Vancouver Ship Yard, Ld	Repairs to launch	49 75	
Walker Emporium, The	Nails	75 00	
Walker, W S	Hardware	102 76	
Wellington Colliery Co	Rope, oilcloth, etc	5 25	
Winn & Son	Hardware	23 91	
Wright, A R	Compensation for injury	100 00	
Wright, H	Services, examining wharf, etc., $10; expenses, $7.20	17 20	
McBride, E	Road Superintendent ..... 239 days @ $ 5.50; expenses, $75.92	1,390 42	
MacKinnon, C M	Clerk to Road Superintendent ..... 12 months 75.00; " 5.52	905 52	
Merrick, W F	Services as Engineer on launch "Sutil" ..... 313 days @ $3	939 00	
Pay-lists	Labour and team-work	23,899 65	
			39,044 48
	Vote No. 165.—Saanich District.		
Corp of Dist of Saanich	Refund for work done on Shelbourne Street	500 00	
Johns, S	Gravel	49 80	
Vic Machinery Depot	Gasolene	24 64	
Pay-lists	Labour and team-work	718 75	
			1,293 19
	Carried forward	.....	934,895 67

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		934,895 67
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 166.—Similkameen District.		
Adams, R N	2 fares on stage, $3; tools on stage, 50c	3 50	
Armstrong, J J	Lumber	15 58	
Avery & Avery	3 shovels	4 05	
Bassett, A T	Hire of truck, 3 days @ 50c	1 50	
Beatty, Alex	Auto-tire, cemental, and gasolene	45 20	
Boeing & Brass	Lumber, etc	769 13	
Braithwaite, Daniel	Dynamite and fuse	11 00	
B C Copper Co	Powder	9 81	
Brooks-McKenzie Lbr Co	1 window	1 50	
Brown, Jas R	Expenses *re* road-work	105 15	
Burr, E E	Blacksmithing and coal	51 95	
Burr, F S	do	90 55	
Cook, F P	Hardware	264 50	
Cote, Edward	Compensation for damage done to property	200 00	
Craig, W W	Hardware, blacksmithing, etc	36 25	
Crawford, Isaac	Hardware	9 60	
Dalrymple, Wm	Blacksmithing	7 45	
Docksteader, Dan	do and coal	5 00	
Govt Telegraph Service	Long-distance calls	24 65	
Govt Telephone Agt	do	15 90	
Dumont, Michael	Lumber and hardware	120 78	
Eastman, A M	Blacksmithing	10 75	
Fetterley, V	do	59 00	
Finch, E J	Lettering sign-boards	7 00	
Gibson, Samuel	Hardware	53 71	
Greer, Charles	Inner tube	5 45	
Gunderson, T O	Making signs and delivery charges	14 00	
Hanson, Thos R	Caps	1 50	
Harris, Gordon	Auto repairs and supplies	494 45	
Hatfield, B L	do	5 50	
Hedley Trading Co	Hardware, oil, etc	281 45	
Hobbs Lumber Co	Lumber	5 15	
Howse Co, Ltd, A E	Powder, etc	491 85	
Hozier, Leonard	Blacksmithing	9 25	
Huff, H H	do	2 25	
Inglewood Supply Store	Hardware, etc	18 65	
Ingraham, A J (C E)	Engineer, 16 days @ $7.50; expenses, $14.55	134 55	
Jermyn, G S	Towing auto and transporting Engineer	15 00	
Kaleden Supply Co	Hardware, etc	203 00	
Kelsey, Noel B	do	62 75	
Keremeos Land Co	235.4 yards cement lining to ditch	541 42	
Ketchum & Co, F F	Powder and fuse, etc	36 58	
King & Co, W R	Road-scraper, etc	67 15	
Kohrdt, Chas C	Rope, etc	15 35	
Lee & Bryan	Powder and detonators	279 75	
Letts, H T	Powder, etc	37 30	
Madden, A	Lumber	15 63	
Madore, J F	Blacksmithing	83 37	
Mills, E	Hardware, oil, etc	31 73	
Mitchell & Co, S C	Lumber	29 51	
McDonald & Rowe	Wire	2 65	
McDougall, G A	2 mantles for lamp	50	
McKinnon, O M	Blacksmithing	7 75	
McLaughlin Carriage Co	Auto parts and expressage	35 10	
McTavish, Isaac	1 axe	1 50	
McCuddy, J P	Hardware, etc	84 75	
Nesbitt, Jos A	Plough and fittings	55 75	
Okanagan Falls Lbr Co	Lumber	7 26	
Okanagan Telephone Co	Rent of telephone, 9 months @ $2	18 00	
Oroville Commercial Co	Caps	1 75	
Parmley, Robt	Hauling roller and plough	12 50	
Penticton Electric Co	Dry batteries	4 00	
Penticton Hardware Co	Hardware, oil, etc	33 71	
Penticton Lumber Co	Lumber	3 58	
Penticton Saddlery Co	1 water-proof sheet	2 75	
Postmaster, Penticton	Box-rent and stamps	9 00	
Postmaster, Fairview	Stamps	16 00	
Preston, T R	Lumber	77 00	
Richter, Wm	Sharpening picks	1 50	
Rock Creek Trading Co	Hardware	47 70	
Schubert's Supply Stores	do	77 20	
Shatford's, Ltd	Rent of building, 7 months @ $12	84 00	
Smith Lumber Co, S C	1 wind-shield and 3 lights	9 75	
Southern Okanagan Transportation Co	Transportation and freight	52 75	
Thomas Bros	Hardware, etc	108 80	
Valley Lumber Co	Lumber	66 55	
	Carried forward		934,895 67

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	934,895 67
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 166.—Similkameen District.—Concluded.		
Wade, A W	Powder, fuse, and caps, etc	559 75	
Weeks Bros	2 ploughshares	3 50	
Wells & King	Gasolene, oil, etc	31 10	
Wells & Turner	Gasolene and storage of car	8 05	
Wilson, M	Painting signs	8 50	
Wright, F M	Refund of cost of moving crossing	22 00	
Turner, H A	Road Superintendent 9 months @ $150; expenses, $299.40	1,649 40	
Tweedie, R D	Clerk to Road Superintendent 9 months @ $30	270 00	
Pay-lists	Labour and team-work	62,784 15	
			70,964 35
	Vote No. 167.—Skeena District.		
Adams, J	Towing scows	20 00	
Adams, J F	Drugs for horses	7 20	
Adams, J M	do	20 85	
Ailport, J	Blacksmithing, hay, horse-feed	22 80	
Aitkin, J	Horse-hire, $93; oats, $90	183 00	
Aldrich, J	Horse-hire	5 25	
Allen, J	Hay	20 00	
Alice Arm Transfer Co	Freighting, hauling, etc	266 69	
Almas, T W	Boat-hire	20 00	
Anderson, G L	Peavy	2 50	
Armstrong, E A	Blacksmithing	5 50	
Armstrong, W L	Freight and expressage	21 59	
Ashman, J K	Horse-hire	5 25	
Babington, H B	Launch-hire	50 00	
Baker, L W	Freightage	10 00	
Baker Bros	Hardware	12 60	
Balmoral Cannery	Nails	6 25	
Barge, J L	Stove	2 50	
Barker, J L	Hay, oats	80 00	
Barrie, W	Launch-hire	20 00	
Bear Lake Tommy (Ind'n)	Repairs to ferry	50 00	
Beattie, G D	Drugs for horses, $5.50; netting, $4.80	10 30	
Bella Coola Lumbering Co	Lumber	22 05	
Bella Coola Pub Co, Ltd	Notice in "Courier"	1 25	
Bella Coola Telephone Co	Telephone-rent	2 00	
Beuchel, G	Blacksmithing	36 20	
Bennett, C	Freight and haulage	146 44	
Bethuren, J L	Powder, caps, fuse, hardware	941 35	
Bickle, W M	Hire of stump-puller	11 00	
Biggart, A	Rent of mess-house	7 50	
Blackwell, E	Haulage	2 00	
Blayney, A	Oats and hay	108 70	
Bostrom, J E	Hardware, powder, hay, etc	119 38	
Bowan, W B	Freighting	15 00	
Brackman-Ker Milling Co	Oats and hay	164 61	
Brewer, J	Haulage and freight	97 91	
Brickman & Co	Lumber	1 00	
Broughton, F	General Foreman, expenses	103 60	
Broughton & McNeill	Hardware, oil, oats, coal, etc	524 78	
Brown, Fraser & Co, Ltd	Axle-box	2 50	
Brown, C	Freighting	104 85	
Brown, Mrs J	Oats	75 60	
Brown, J A	Lumber	690 50	
Bruce, D	Carrots	6 00	
Brunell, P	Freighting	152 80	
Brynildsen & Co	Hardware	14 35	
Buckley, E C	Repairs to boat	5 00	
Bulkley Transfer Co	Horse hire and feed, auto-hire	56 00	
B Val Farmers' Institute	Hay	187 40	
Bulkley Valley Lmbr Co	Hay and stabling	8 00	
Burns Lake Trading Co	Hardware, oats, hay, etc	42 95	
Buschell, G	Blacksmithing	6 00	
Bush, J H	Hay	5 00	
Buxton, J	Blacksmithing	146 75	
Canadian Explosives, Ltd	Dynamite, powder, caps, fuse	639 11	
Canadian Express Co	Expressage	85	
Canyon Creek Jimmy	Packing out camp outfit	6 00	
Carney, H H	Launch-hire	7 50	
Carney & Russell	Fares and freight	5 25	
Carr, M D	Hay	28 17	
Carroll, R M	Livery and team hire	15 00	
Casebeer, H	Removal and replacing of ferry	13 60	
Chapman, C	Hay and oats	213 33	
Charley, Long	Horse-feed	50	
	Carried forward	.....	1105860 02

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		1005860 02
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 167.—Skeena District.—Continued.		
Chisholm, A	Hardware	182 27	
Christensen, A C	Boat-hire, hardware	53 30	
Chyber, E	Repairs to typewriter	4 25	
City Transfer Co	Haulage	12 00	
Clayton, D	Launch-hire	25 00	
Clayton, G L	Repairs to typewriter	7 45	
Cochrane, D	Hardware	24 90	
Corlette, R	Hay	56 00	
Corner, A	Horse-feed	19 50	
Cunningham & Sons, R	Hardware, stable, supplies, powder, etc	342 88	
Curtin, Miss H	Services as Stenographer	5 00	
Davey, T R	Boat-hire	5 00	
Davis, H	Haulage and storage	22 00	
Delahay, A	Powder and caps	91 50	
Derassar, W	Livery-hire, $11; haulage, $3	14 00	
Dobie, F	Fare	3 95	
Dockrill, F M	Oats	67 30	
Dom Govt Telegraphs	Telegrams	191 80	
Draney Fisheries	Lumber, hardware	85 97	
Duncan, W	Taking care of Government teams, 4 months 7 days @ $60	254 00	
Du Vernet, H	Keep of horses 3 " " 60	193 50	
Eastment, J	Stamps	1 00	
Eby & Sparks	Hardware	32 25	
Ellison, W	Horse-feed and hire of team	15 00	
Endako General Store	Hardware	58 10	
Evans, F	Freighting	22 50	
Fairbairn, W H	Boat-hire	8 00	
Falconer, T W	Hardware, dynamite, fuse, etc	817 60	
Fidel, W	Building hay-rack	4 50	
Ford Taxi Service	Auto-hire	2 00	
Fotherby & Cummings	Blacksmithing	82 75	
Fowler, L	Cutting trail	50 00	
Francis, D	Packing out camp	9 00	
Francis, R	do	11 75	
Freeman, H K	Launch-hire	54 00	
Fritz, the Handy Man	Cleaning chimney and pipes	1 50	
Gallienne, W E	Team and livery hire	84 75	
Gayer & Connelly	Powder, fuse, caps, hardware	24 00	
Geigerich, M V	Hardware	8 45	
George Little Lbr Yard	Lumber	34 91	
Georgetown Saw Mill Co.	do	104 51	
Gerrard, E	Launch-hire	7 50	
Gillinspritz, E	Haulage	18 00	
Guard, E	Launch-hire	8 00	
Graham, J W	Stumping-machine	60 00	
Granby Con Mining Co	Hardware, $138.50; launch-hire, $7.50	146 00	
Granby Con Mining, Smelting & P Co	Hardware	46 55	
G T P Railway Co	Telegrams, $15.54; freight, $145.91	161 45	
G T P Coast SS Co	Freight	53 00	
Grider, A	Haulage	1 00	
Gray, J	Carrots	4 80	
Hammer, A	Powder, fuse, caps	19 75	
Harris & Long	Oats and hay	94 50	
Heal, F G	do	145 44	
Hellman, E	Repairs to tents	43 50	
Henkel, J W	Horse-feed	17 00	
Herlikey, T	Team-hire	190 00	
Hoops, B N M	Haulage, $19.60; lumber, $170.20	189 80	
Hudson's Bay Co, The	Hardware	38 65	
Hunter, J	Blacksmithing	74 57	
Hunter, W	Hay	5 40	
Hynes, J	do	15 00	
Janze, F	Haulage	25 56	
Jeffrey, R R	Hauling, hardware, etc	107 27	
Jenkins, A	Freighting	50	
Johasson, T	Lumber and nails	4 78	
Johnson Bros	Hay	222 26	
Johnson, F A	Lumber and sharpening drills	8 78	
Johnson, J	Hay	69 94	
Johnston, J	Care of horses	77 42	
Kaien Hardware Co	Hardware, powder, etc	1,670 51	
Keefe, J H	Hauling, etc	14 12	
Kelly, J R	Horse-feed	12 50	
Kergin & Fowler	Freighting and launch-hire	31 00	
Kispiox Lumber Co	Lumber	4 68	
Labelle, F	Horse-feed	6 50	
	Carried forward		1005860 02

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward	.....	1005860 02
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 167.—Skeena District.—Continued.		
Lake, Miss K	Services as Stenographer	42 00	
Laknits, J W	Rent	20 00	
Large, T H	Freighting	15 00	
Larkworthy, W J	Hardware, powder, fuse, etc	321 74	
Latham, J	Stabling team	50	
Law & Co, W M	Hardware	32 91	
Law & Mosher	Hardware and oats	25 45	
Lazelle & Co, F	Hardware	54 05	
Lund, J E	Telegrams	59 40	
Little, G	Hay, shoe sets, etc	63 30	
Lindeborg, D	Haulage, $226.53; launch-hire, $50	276 53	
Lindsay's Cart & Storage	Hay	157 45	
Little, G	Lumber, hardware, hay, oats, blacksmithing, etc	760 35	
Love, J	Hay	8 00	
Lund, O	Oats	3 20	
Lynch Bros	Steel	3 12	
Maney, J	Hay	108 10	
Martin, J	Hay, oats, hardware, lumber, etc	355 46	
Maxwell, A	Oats	31 50	
Miles, L C	Launch-hire	6 00	
Miller, W	do	98 50	
Mitchell, W	Hay	2 25	
Moran, E	Hay, oats, carrots	366 34	
Moore, D	Hay	234 00	
Morris, C	do	60 00	
Mulvaney & Macdonald	Meals, beds, stabling	50 25	
Macdonald, R C	Stabling, etc	28 55	
Macdonell, G	Horse-feed and stabling	41 63	
McArthur, M	Horse-collar and pads	9 00	
McCubbin, T	Hardware and freight	229 59	
McDonald, P	Taking care of horse	90 00	
McInnes, A	Hay and stabling	39 80	
McInnes, Mrs A	Meals and beds	10 00	
McLean, A	Looking after horse, etc	112 50	
McLean, J	Haulage	32 59	
McLean, L H	Oats	84 00	
McMillan, D	Hire of hay-baler	5 50	
McMillan, N	Hay and looking after horses	101 00	
McMillan Bros	Hay and oats	107 00	
McPhee, P	Hay	46 10	
McRae, J	Haulage	71 96	
McRae Bros, Ltd	Office supplies	3 00	
Nelson, P	Cleaning windows, etc	4 50	
Newitt, C A	Horse-feed	1 50	
Newman, J	Hay	8 25	
New Telkwa Hotel	Rent of room	27 00	
Niedhart, J	Horse-hire	35 00	
Nordschow, Mrs	Board, room, horse-feed	12 00	
Northern Telephone Co	Rent of telephone	15 00	
Olson, K	Team-hire	62 00	
Pacific Cartage, Ltd	Cartage	26 40	
Palmer, C	Powder	75 00	
Parkin & Ward	Lamps, wrench	3 00	
Pauline, J A	Launch-hire	90 00	
Pearce, C	Hay	7 00	
Peterson, C	Slush-scraper	6 00	
Pony Express	Freight, etc	18 20	
Postmaster, Bella Coola	Stamps	5 00	
Postmaster, Pr Rupert	Stamps, $90; box-rent, $12	102 00	
Postmaster, Hazelton	do 19; " 4.50	23 50	
Priestley, A F	Hardware, freight	81 85	
Prince Rupert Auto Co	Auto-hire	13 50	
Prince Rupert Boat Hse	Boat-hire	50 75	
Prince Rupert (City)	Telephone, $52; electric light, $15.24	67 24	
Prince Rupert Feed Co	Horse-feed and seeds	123 28	
Prince Rupert Towing Co	Launch-hire	50 00	
Prince Rupert Trans Co	Cartage and express	1 60	
Prosser & Reid	Launch-hire	2 25	
Prudhomme & Fisher	Oats	80 60	
Reid, C	Fare, meals, bed	11 55	
Richmond, J	Hardware	71 25	
Robinson, K & M	Nails	7 50	
Rocher de Boule Cop'r Co	Hardware	328 32	
Rosenthal, G A	Oats	175 00	
Ross C	Hay and stabling	3 50	
Ruddy & Mackay	Blacksmithing, team-hire, haulage, etc	210 84	
Rudge, W	Launch-hire	30 00	
	Carried forward	.....	1005860 02

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	1005860 02
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 167.—Skeena District.—Concluded.		
Sampere Bros	Drugs for horses, horse-hire	17 65	
Sampere, J	Hardware	4 90	
Sargent, Ltd, R S	Stamps, harness, powder, caps, fuse, hardware	4,068 34	
Sawle, C H	Rent of cart and harness	22 00	
Scharffe, R	Hardware, oats	58 95	
Schorn, L	Shovels	3 75	
Short, I	Hay	330 60	
Silver Standard Min'g Co	Drill-steel and wrench, labour	9 25	
Simpson, E	Hay and fare	31 25	
Simpson, E, & Croteau, W	Timothy hay and bailing	744 00	
Skeena River Co-operative Assoc'n, Ltd	Hardware, horse-feed, freighting	281 05	
Skinner Bros	Hardware, powder, etc., horse-hire	151 75	
Skjepstad, C C	Rent of warehouse	48 00	
Sloan, T G	Rent of stable and barn	27 00	
Smith, W J	Launch hire	28 50	
Smithers Transfer	Rent of barn	12 00	
Snodgrass H	Hay	67 50	
Stephenson & Crum	Repairs to roof, painting, glazing, etc	125 65	
Storey & Campbell	Harness and express	89 60	
St Peter's Church	Rent of pasture	20 00	
Studd, J	Expenses *re* ferry crossing	2 00	
Stults, A W	Horse-hire and grading	36 75	
Svenson, N	Papering, glazing, painting, etc	35 00	
Swann, J	Horse-feed	1 00	
Swanson, A	Launch-hire	470 00	
Sweet, E	Wood	10 00	
Terrace Transfer Co	Hauling	5 00	
Thompson Hardware Co	Hardware, powder, etc	2,245 89	
Thompson, W	Paid for tools	13 00	
Thorp & Hoops	Back wheels, axles, hay, etc	59 10	
Tingley, B L	Tent, coal, lumber	18 25	
Tite, G D	Tents, etc	72 40	
Tom-Jimmie (Indian)	Packing	11 75	
Turney & Son, C	Hardware	16 60	
Tyson, K	Repairing plank walks	3 50	
Union Bank of Canada	Interest, postage, etc	2 66	
Union Steamship Co, Ltd	Freight	7 50	
Up-to-Date Drug Stores	Horse-medicine	4 00	
Usk Lumber Co	Lumber	35 20	
Wallace Fisheries, Ltd	Hardware	19 00	
Warren, W J	Hay	6 00	
Watson, Wm	do	204 14	
Westhome Lumber Co	Lumber	188 56	
White, P R	Hay	337 62	
Williams, R E	Oats	117 88	
Wilson, E	do	84 00	
Wilson, P	Coal	5 00	
Wright, E G	Launch-hire	10 00	
Carr, W J	Road Superintendent, 228 days @ $6.50; expenses, $194.35	1,676 35	
Jennings, R O	do, 279 " 6; " 949.60	2,623 60	
Manson, J	do, 250 " 6; " 467.72	1,967 72	
Martin, F	do, 27 days @ $150 per month; " 57.60	188 25	
Williscroft, W A	do, 2 months @ $200; " 49.20	449 20	
Morrison, D H	Acting Road Superintendent, 4 days 6; " 16.75	40 75	
Williscroft, B	Clerk to Road Superintendent, 2 mos. @ $50; 7½ months 60; " 9.80	559 80	
Frost, J	do, 4 " 11 d. 90	391 95	
Lake, W F	do, 5 " 90	450 00	
Berner, A	do, 3 " 8½ d. 90; expenses, $23.95	319 45	
Doig, J B	do, 4 " 5 d. 90	374 15	
Anderson, J	General Foreman, 132 days 5; expenses, $59	719 00	
Donald, M	do, 1 month 150	150 00	
Beatty, A C	do, 146 days 5; expenses, $153.43	883 43	
Gordon, A J	do, 4 mos. 19 d. 150; " 94.45	789 45	
McRostie, T	do, 6 days 5; " 67	97 00	
Spence, C	do, 4 mos. 9 d. 150; " 79.75	724 75	
Chenette, P	Services, running ferry, 3 months 80; 1 month @ 80.50	320 50	
Pay-lists	Labour and team-work	129,200 97	
			170,350 64
	Vote No. 168.—Slocan District.		
Abriel, Thomas	Hauling plank	1 50	
Angell Hardware Store	Gasolene	4 50	
Aalton, K	Cedar	7 70	
Becker, A J	Gelignite and coal	3 50	
Black & Cameron	Powder, fuse, and hardware	119 85	
	Carried forward	.....	1176210 66

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward	.....	1176210 66
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 168.—Slocan District.—Concluded.		
Can Bank of Commerce	Commission for cashing cheques	30 30	
Canadian Explosives, Ltd	Powder, caps, and freight	178 80	
Dilley C	Express and freight	7 30	
Ehl, Chas	Hardware	2 15	
G T Store, The	Nails and stove-pipe	7 15	
Hoben, T H	Hardware and caps	10 30	
Jordon, F W	Hardware	22 50	
Lift, A W	Caps, fuse, and hardware	17 65	
Murhard, G H	Pack-horses, coal, etc	21 20	
McNeish, T	Powder, caps, fuse, hardware, etc	205 78	
Nelson Iron Works	Pipe for pile-driver	1 20	
Pioneer Livery & Feed Stables	Hauling lumber	21 05	
Postm'str (Thompson, A)	Stamps	12 00	
Quance Lumber Co, Ltd	Lumber	64 55	
Rae, J M	Pack-horses	10 00	
Ruth Mines, Ltd	Repairs to road	100 00	
Schram, E L	Blacksmithing	12 35	
Silverton Lbr & Power Co	Lumber	282 38	
Slocan Valley Lumber Co	Rainbow packing, etc	5 20	
Smith, J B	Tents, fuse, hardware, etc	35 15	
Somers, E W	Blacksmithing	2 05	
Stevens, Robert	Hardware	17 15	
Surprise Mine	Reimbursement for work on road and bridge	372 44	
Swan, P	Blacksmithing	5 00	
Trickett, G	Pick-handles and saw	9 00	
Wagstaff & Vestrup	Hardware	48 46	
Wiebe, P H	Fuse, caps, and hardware	7 00	
Wilson, T H	Powder, caps, fuse, and hardware	446 61	
Wood, Vallance Hdwre Co	Wire rope, hardware, etc	149 99	
McLean, M	Road Superintendent ..... 235 days @ $5.50; expenses, $451.95	1,744 45	
Shannon, D	Clerk to Road Superintendent ..... 8 months 19 days @ 75	645 97	
Pay-lists	Labour and team-work	31,139 78	
			35,771 96
	Vote No. 169.—Yale District.		
Aberdeen Mining Co	Grant towards road	1,500 00	
Adamson, Mrs	Hay, stabling, and feed	19 00	
Alvarez, M	Blacksmithing	1 00	
Anderson, O E	Hay	15 00	
Angstadt, Wm A	Delivering telephone messages to Tingley	2 50	
Anthony, J H	Stove, coal, hardware, etc	98 45	
Archibald & Son, E	Hardware	2 60	
Armstrong's Dept Store	Dynamite, oats, caps, horse-blankets, etc	151 45	
Ashcroft Estates, Ltd	Hay and pasturing horse	27 50	
Ashcroft Water Co	Babbitt metal for grader	2 00	
Baillie, M C	Blacksmithing	54 75	
Bank of Montreal	Exchange	18 60	
Bank of Toronto	do	27 55	
Barwick, N J	Horse-blankets and repairs	24 75	
Bate, J E	Hay and feed for horses	7 50	
B C Equipment Co	Grader-edges, scrapers, etc	121 35	
Bigney, C A	Oats	118 35	
Blue, Geo S	Auto-hire	10 00	
Boyden, Robert	Replacing springs on auto	4 50	
Brophy, Mrs	Postage-stamps, $100; box-rent, $5	105 00	
Bryden, Thomas	Auto hire	5 00	
Canadian Northern Ry	Freight, $47.07; telegrams, $2.83	49 90	
Canadian Pacific Ry	Freight, $65.81; telegrams, $36.70; express, $6.80	109 31	
Chapman, J A	Caps, powder, fuse, saddlery, etc	280 69	
Chartrand, A	Hay	30 00	
Clark, Cyril	7 logs for culverts	7 00	
Clark, R L	Oats and hay	45 90	
Clark, Thomas	Hay	20 00	
Cleasby, H S	Hay and feed of team	20 90	
Cleasby, Joseph	Hay	34 00	
Clemes, A	Hardware	20 03	
Collett, J	Oats and horse-feed	45 00	
Conti, Joe	Hay	63 83	
Cottrell, H V	Hardware, auto-hire, oats, etc	42 25	
Coutlie, A J	Team and man hire	94 00	
Couvrette, Gilbert	Hay	15 25	
Cowden, H	Tents	15 00	
Cowen, W H	Blacksmithing	255 50	
Croizier, A	do	18 00	
Curnow, Thomas	Hay and repairs	14 00	
	Carried forward	.....	1211982 62

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		1211982 62
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 169.—Yale District.—Continued.		
Damaney, L W	Hauling powder	3 00	
Darough, Neil	Hay	10 80	
Dawson, L	Blacksmithing	1 00	
Denmark & Burton	Caps and fuse	3 00	
Deupray, Neile	Lumber	10 00	
Devlin, M	Freight	5 78	
Dixon, D	Express and help, moving camp	4 00	
Docksteader, Dan	Blacksmithing	10 00	
Dom Telephone Service	Telephone	33 19	
Dry Belt Settlements Utilities, Ltd	Oats	54 40	
Dumond, Mark	Cook-stove, tents, gasolene, lumber, etc	129 26	
Dundas, John	Railway fares, freight, etc	29 50	
Dunlop, J L	Blacksmithing	42 35	
Elliott, Frank	Lumber, etc	274 10	
Florence, M	Powder	8 50	
Forrest, A B	Caps and hardware	6 15	
Fraser, A M	Gasolene	1 10	
Gardiner, W	Care and feed of Government team	55 50	
Gibson, C H	Hay	37 50	
Gilboe, P	Feed and stabling	20 00	
Gowen, H	Repairing flume, lumber, and labour	35 87	
Grant, T B	Blacksmithing	15 00	
Green, Wm	Gravel	4 00	
Guichon, Joseph	Lumber	21 16	
Haddock, A W	Livery-hire	5 00	
Hannah, A M	Hardware, dynamite, etc	38 20	
Hardy, Nelson	Powder, caps, and fuse	3 25	
Harvey-Bailey, Ltd	Oats, hardware, powder, fuse, caps, etc	449 77	
Haslam, V G	Haulage	50 50	
Hautier, A F	Hauling and freight	20 75	
Hope Tdg & Supply Co	Bran, oats, hardware, etc	78 45	
Hope Transfer Co	Hay, lumber, etc	10 75	
Howell, A	Coal	4 20	
Howse & Co, A E	Gasolene, hardware, etc	10 25	
Hunter, Mrs A	Nails	75	
Huston, W O	Hay	80 90	
Inkman, F E	Livery and auto hire	69 50	
Inland Transportation Co	Gasolene, powder, tents, oats, etc	1,168 81	
Jackson, A	Oats, rope, and freight	111 75	
Jaicobbe, V	Blacksmithing	102 75	
Kane, W	Hay and pasturing horse	122 10	
Larson, John	Hay	10 00	
Leonard, H L	Nails	35 84	
Long, J A	Hay and care of horses	82 00	
Loring Bros	Hay, oats, and keep of Government horses	452 00	
Lulu, D	Hay	44 80	
Lundsten, C	Livery-hire	5 00	
Lytton & Lillooet Mail Stage	Express	9 00	
Lytton Water Supply	Water	9 00	
Marquess of Anglesey's Estates	Hay and blacksmithing	51 25	
Martin, Mrs R	Repairing and cleaning kitchen outfit	3 00	
Matthews, Harold H	Hay	40 00	
Menzies, Ltd, J A	Lumber, etc	94 77	
Merritt Livery & F Stables	Livery-hire	12 25	
Merritt Lumber Yard	Lumber	402 81	
Merritt Mercantile Co	Dynamite	28 00	
Merritt Transfer	Hay, oats, etc	656 01	
Mills, C	Sharpening saws	5 25	
Minnaberriet, L	Hay	5 00	
Morby, W	Hay	10 00	
Morens, L	Hay and oats	27 00	
Munro, D L	Keep of horse	16 50	
Munroe, James	Hire of harrow	4 00	
Myren, G P	Hay	81 00	
McAbee, M L	Use of 4 horses	15 00	
McCormick, H	Hauling plank	2 00	
McGillivray, C	Feed and stabling	10 00	
McIntosh, J A	Livery and auto hire	14 50	
McIntosh & Baillie	Hardware, grease, etc	71 05	
McLaughlin Carriage Co	Auto supplies and repairs	36 55	
McLeod, E	Livery-hire	4 00	
McNeil, Dan	Hauling powder and freight	2 95	
Nicola Livery Stables	Oats and team-work	51 00	
Nicola Valley Garage	Carburettor, auto supplies, and repairs	135 05	
	Carried forward		1211982 62

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		1211982 62
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 169.—Yale District.—Concluded.		
Nicola Valley Pine Lbr Co	Lumber	101 47	
Olson, M	Stabling and feed	2 50	
Palmer, A W	Hire of horse	2 00	
Palombi, Thos	Repairing auto	16 00	
Pascoe, J	Oats and hay	41 20	
Pascoe, S	Hay	12 00	
Potter, W E	Lumber	27 36	
Raab, A E	Cooking-range, hay, and coal	188 00	
Rankine, A F	Horse-medicine	3 50	
Ray, F	Hay and oats	12 96	
Rebagliati, B	Gasolene, coil, hardware, etc	154 40	
Rebagliati, John	Blacksmithing	69 00	
Remington Typewrtr Co	Repairs	5 25	
Rhodes, J R	Livery-hire	6 00	
Richardson, H E	Hay, pasture, and stabling	188 50	
Riley, William	Blacksmithing	4 25	
Roberts, Alonzo B	Team and man	14 00	
Rogers, W B	Express and fares	3 15	
Rosenburg, Frederick L.	Oats, bran, and grease	39 25	
Ruddock, A M	Hay	101 69	
Shelton, H T	Hardware, etc	6 50	
Simpson, Frank	Wintering horses	42 60	
Smith, James	Blacksmithing	81 75	
Smith, Mrs Jessie A.	Hay	12 00	
Smith & Bryson	Blacksmithing	60 25	
Solomon, S J	Oats, buggy and team-hire, and stabling teams	46 20	
Somerville, Thomas	Fare, horse-hire, and teaming	8 50	
Stewart, Charles	Repairing tents	5 00	
Stoddart, Robert	Lumber	51 77	
Styer, A	Livery-hire	3 00	
Sutherland, H D	Demurrage on C.P.R. and gravel	23 00	
Thompson, W	Hay	19 80	
Tingley, E B	Fare	3 80	
Walbachin Building Co.	Lumber, etc	38 15	
Ward, George	Hauling grader and hay	81 10	
Webb, Horatio	Powder	21 75	
Webster, Alex C	Hardware and lumber	29 30	
Willow Grange Farm	Hay	22 50	
Sutherland, D G	Road Superintendent..... 237 days @ $5.50; expenses, $543.62	1,847 12	
Keeble, Walter	Clerk to Road Superintendent..... 8 months and 18 days @ $75	643 55	
Pay-lists	Labour and team-work	36,509 96	
			49,616 91
	Vote No. 170.—Ymir District.		
Appleton, William	Powder	6 25	
Appleton Bros	Axe-handles, snow-plough, 2 days	14 80	
Banting, W J	Hardware	22 78	
Bell & Co, R B	do	40 90	
Benton Pole & Lmbr Co.	Lumber	24 02	
Birkbeck, S	Freight on mule	3 85	
B C Telephone Co, Ltd.	Exchange service, $38; calls, $35.95	71 95	
Brown, W K	Blacksmithing	2 25	
Brown, Fraser & Co, Ltd	Grader-blades	30 00	
Buggins, W	Hauling lumber	5 25	
Byers, Geigerich, Green Co	Spikes, powder, and freight	58 10	
Campbell, R J	Blacksmithing	14 90	
Canadian Explosives, Ltd	Powder and dynamite, etc., prepaid freight	969 92	
C P R Telegraph Dept	Telegrams	5 41	
C P Railway Co	Freight on road-drag	50	
C P Railway Co	Rental of roadway at West Robson	1 00	
Canyon City Lbr Co, Ltd	Lumber	293 28	
Claghorn & Mickel	Packing	69 68	
Coleman, G S	Hauling lumber	3 81	
Consolidated Mining & Smelting Co, Ltd	Cost of road to Trail smelter	2,304 00	
Contini, B	Compensation *re* land taken for right-of-way	50 00	
Cook, J	Compensation for road through property	498 00	
Cope, E T	Carpet	12 50	
Corp of the City of Nelson	Electric light	8 00	
Creston Mercantile Co	Hardware, lumber, powder, etc	335 28	
Crescent Valley Lbr Co.	Lumber	36 27	
Cruickshank, A	Cartage	3 10	
Davis, H C	Hardware	24 47	
	Carried forward		1261599 53

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		1261599 53
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 170.—Ymir District.—Concluded.		
Dawson, R W.	Dynamite	3 75	
Deschamps, J S	Lumber	373 69	
Dodds, Robert	Stumping-powder	9 00	
Dominion Express Co	Express charges	2 35	
Doukhobor Trading Soc.	Lumber and repairs to approaches of ferry	41 66	
Drake, Harry	Blacksmithing	3 75	
Edgewood Lmbr Co, Ltd	Lumber, etc.	14 75	
Fulmer, J H	Blacksmithing	9 75	
Galbraith Bros	Hardware	35 80	
G Northern Express Co.	Express charges	3 15	
G Northern Railway Co.	Wire to J. P. Johnson	28	
Grobe, D E	Hardware	40 50	
Haglund, O A	Pack-horse, 1 day	2 00	
Harms & Son, P W	Lumber	107 30	
Henderson's Livery	Teaming	39 50	
Hooper, Wm	Claim for land taken for road	25 00	
Hunt & Miller	Hardware	22 00	
Hunter Bros, Ltd	Dynamite, powder, hardware, etc.	534 40	
Imperial Oil Co, Ltd	Axle-grease and oil	8 35	
Jobe, Leo.	Cleaning and repairing typewriter	4 00	
Johnston, J P	Compensation for land taken and fruit-trees	145 65	
Kennedy, S J	Hauling	7 75	
Kennington, Geo A	Blacksmithing	20 15	
Lambert Co, Ltd, A G	Lumber and cartage	594 17	
Landis, H B	Logs	20 00	
Ludwig, J M	Harness	3 90	
Mack, W L	Government grant towards building road on Lost Creek	1,700 00	
Malcolm, James	Hardware	9 15	
Mankin Lmbr & Pole Co.	Lumber	31 72	
Mears, A	Caps	10 00	
Mellard, W R	Hardware	16 35	
McGregor, E J	Hauling	2 00	
McKay & Beverley	Blacksmithing	20 95	
McLeod, M	Hardware	2 50	
McLim, A E	Lumber	7 46	
McRobb, J	Blacksmithing	2 35	
McSweyn, John D	O.F. licence for Trail Foreman	2 50	
Nelson Hardware Co	Hardware, etc.	310 70	
Nelson Iron Works, Ltd.	Machine-work, etc.	8 85	
Nelson Transfer Co	Cartage and freight, etc.	208 03	
Pond, S P	Cedar pole	4 00	
Postmaster, Nelson	Post-office box rent, $5; stamps, $40	45 00	
Quance Lumber Co, Ltd.	Lumber	209 20	
Rahal, Philip J	Blacksmithing	6 50	
Reid, James	Hauling	14 00	
Read, J E	Hardware and lumber	180 38	
Ritchie, A	Hardware	9 45	
Robinson, Wm	Powder	62 50	
Rogers, T	Nails	10 68	
Salisbury, W R	Auto-hire and hauling	81 50	
Salmo Trading Co, Ltd.	Hardware, etc.	33 25	
Salmon River Lbr Co	Lumber	27 18	
Seaman, Wm	Freighting powder	5 00	
Slocan Valley Lbr Co, The	Sharpening tools	1 00	
Speers, S A	Hardware	2 70	
Tarry & Son, James	Plank	14 00	
Thrums Co-operative Co	Powder, etc.	39 10	
Van Machinery Depot, Ld	Rollers and shaft	175 00	
Varseveld Bros.	Lumber	199 61	
Wagstaff & Vestrup	Hardware	27 75	
Waters & Co, T H	Ripping and dressing lumber	3 79	
Waters & Pascoe	Wedges	2 80	
West Transfer Co	Hauling	1 75	
White, W J	Fuse, caps, and files	6 35	
Wickham, W T	Hardware	15 47	
Wiebe, P H.	Blacksmithing	20 25	
Willow Point Trading Co	Hardware	13 40	
Wills, J H	Powder	7 50	
Wilmes, N	Hardware	21 50	
Wood, Vallance Hdwre Co	do	449 12	
Wynndel Box Factory	Lumber	175 18	
Benney, G M	Road Superintendent ..... 287 days @ $5.50; expenses, $665.30	2,243 80	
Venables, R V	Clerk to Road Superintendent ..... 9 months @ 90	810 00	
Pay-lists	Labour and team-work	54,591 27	
			68,825 41
	Carried forward		1330424 94

TO WHOM PAID	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		1330424 94
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 172.—Roads, Point Grey.		
Alberta-Pacific Grain Co.	Oats, bran, and hay	58 85	
Brackman-Ker Milling Co	Hay, oats, bran, and straw	241 33	
Corporation of Point Grey	Government grant	2,875 00	
Corporation of Point Grey	Water	7 71	
Evans, Coleman & Evans	Culvert, pipe, etc	508 00	
Flett, Ltd, J A	Hardware, etc	162 79	
Greer, A B	Paint and brushes	28 80	
Knight, Wm	Blacksmithing	10 50	
Ledingham & Cooper	Concrete, rock, and cement	50 75	
McKendrick, S	Blacksmithing	12 05	
Robertson & Hackett	Lumber	425 04	
Shell Company	Gasolene	24 08	
Terminal City Motor Co.	Trip to Point Grey	4 00	
Pay-lists	Labour and team-work	4,950 85	
			9,359 75
	Vote 173.—Road Construction, Interned Aliens.		
Abrahamson, O W	Lumber	13 00	
Arrow Lakes Hotel	Empty barrel	2 25	
Arrow Lakes Lumber Co	Moving camp, hauling supplies, lumber, etc	362 70	
Bangs, John	Hay	8 50	
Banting, W J	Cement, hardware, powder, provisions, etc	365 45	
Bedford, A	Stationery	2 85	
Bell Trading Co	Provisions	21 35	
Bjorkman, A E	Powder	16 00	
Black, John (Foreman)	Board and lodging, transportation, etc	269 15	
Bryden & Johnston	Lumber	100 45	
Bruhn, R W (Foreman)	Board and lodging, transportation, use of motor, etc	356 78	
Buchan, W F	Repairing launch and material	21 35	
Burns & Co, Ltd, P	Meat	21 75	
Canadian Pacific Ry Co	Freight	60 38	
Coulter, A H	Hardware	5 60	
Dom Govt Teleg'h Service	Telephone and telegrams	13 34	
Duncan, Dr G Edward	Operation and services *re* J. Miller	150 00	
Edgewood Rural Telephone Co	Moving telephone-line	4 80	
Farmer, H	Blacksmithing	12 75	
Fernie Livery Co	Livery-hire	6 00	
Finlayson & Co, M J	Hardware, gasolene, exploders, fuse, caps, etc	524 42	
Ford Tyler & Co	Hardware	13 75	
Ford, J W	Rent of house and water, caps, and fuse	98 05	
Giant Powder Co, of Canada, Ltd	Electric exploders	4 40	
Gillis, M A	Transporting supplies, etc	1,354 35	
Jordan & Co, F W	Nails	1 05	
Kelso & Yeld. Drs	Professional services	12 50	
Lawrence Hrdwre Co, Ld	Hardware	65	
Mara Trading Co, The	Gasolene	1 65	
Miller, James	Compensation for injuries	347 50	
Morrison, L C	Compensation for loss of horse	100 00	
Muir & Co, S A	Porcelain eye and fitting	10 00	
McDiamid S J	Hardware	73 97	
McLeod	Lumber, nails, etc	43 86	
Needles Farmers' Inst'ute	Caps, etc	5 00	
Nelson, Transfer Co, Ltd	Freight on rock-cars, etc	11 98	
Newnes, W	Blacksmith's coal, freight, etc	122 03	
Major-Gen Sir W H Otter	Expenditure for pay of prisoners working on trunk roads	4,836 57	
Prior & Co, Ltd, E G	Plough-handles	3 50	
Smith Lbr Co, Ld, S C	Compensation for loss of horse	200 00	
Sturdy Hardware Co	Hardware	161 14	
Sutherland, J P	Cartage	3 75	
Thomson, J	Hardware, coal, etc	32 20	
Turner, R	Powder	341 00	
Vernon Hrdwre Co, Ltd	Dynamite, caps, etc	613 50	
Weibe, P H	Rent of wagon-box	1 50	
Williams, W	Hauling rails, etc	10 00	
Wood-Vallance Hdwre Co	Mattocks	15 00	
Wray, G S	Cedar posts	10 00	
Pay-lists	Labour and team-work	6,189 80	
			16,957 57
	Carried forward		1356742 26

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	1356742 26
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 174.—Strathcona Park (Maintenance).		
Best, W F	Caretaker ..... 3 months @ $100; expenses, $88.15	388 15	
Campbell River Trdg Co	Hardware and groceries, etc	153 71	
Can Engine Supply Co	Repairs on Evinrude and cartage, etc	9 35	
Giant Powder Co	Powder	461 25	
Peterson, Morris	do	31 50	
Banham, R M	Stamps	5 00	
Union Steamship Co	Freight on powder	9 70	
Willard, Wesley	Oil	2 90	
Wilmshurst, J	Road Superintendent, expenses	89 40	
Pay-lists	Labour and team-work	7,649 32	
			8,800 28
	Vote No. 175.—Observatory Road (Completion).		
Canadian Explosives Co	Dynamite, powder, caps, and fuse	27 66	
Lemon-Gonnason Co	Lumber	9 14	
Martin, H	Cartage	10 00	
Powell & Son, G	Nails	1 20	
Pay-lists	Labour and team-work	1,799 00	
			1,847 00
	Vote No. 176.—Main Road, Saanich, Paving.		
Corp of Dist of Saanich	Payment on account paving	.....	19,459 74
	Vote No. 177.—Assistance towards Dyke, Nicomen Island.		
West Nicomen Island Dyking Commissioners	Expenditures on pump, ditching, dyke repairs, etc	.....	10,000 00
	Vote No. 179.—Location of Roads.		
Anderson, J D	Survey-work, hotel, and transportation	242 35	
Harvey, Bailey & Co	Provisions	7 70	
Bose, C	Saddle-horses and man	14 00	
Brady (B C L S), James	Survey-work and expenses	342 50	
Burden (B C L S), F P	do "	54 80	
Burnyeat (B C L S), J P	do "	929 84	
Burr, J	Man, rig, and team, 3 days	25 00	
Green Bros, Burden & Co	Survey-work and expenses	2,315 30	
Haddock, A W	Team and man	10 00	
Ingraham (C E), A J	Engineering-work and expenses	191 40	
Inland Transportation Co	Hire of horse	1 50	
Johnson & Hamilton	Survey-work and expenses	222 60	
Kerby (B C L S), Forbes M	Survey-work	75 00	
Merritt Transfer	Horse-hire	10 00	
Revelstoke, Corp City of	One-half cost of survey	51 30	
Sutherland, Gordon	Assisting Road Superintendent	2 50	
Wilkie, O N B	Survey and expenses	66 00	
Woods & Campbell	Board and room	5 50	
Pay-lists	Labour and team	109 50	
		4,676 79	
	Cr. Refund by C. N. Railway for survey of Government Reserve and road diversion at Oyama	99 00	
			4,577 79
	Vote No. 180.—Protection of River-banks.		
Pay-list	Labour and team-work, Bella Coola Division	350 50	
Pay-list	do Carpenter Creek	38 00	
Byers, Giegerich, Green Co	Powder, Crawford Creek	50 50	
Pay-list	Labour and team-work. "	45 50	
Pay-list	do "	21 00	
Lawrence Hardware Co	Hardware, blacksmith's coal, etc., Columbia River	42 85	
Procunier, C A	Wire, "	12 50	
Pay-list	Labour and team-work, "	663 20	
Revelstoke, Corp City of	Lumber, "	160 00	
Sturdy Hardware Co	Wire rope, steel, and hardware, "	119 27	
	Carried forward	.....	1401427 07

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts
	Brought forward			1401427 07
	XII.—PUBLIC WORKS.—*Continued.*			
	Roads, Streets, Bridges, and Wharves.—*Continued.*			
	Vote No. 180.—Protection of River-banks.—Concluded.			
Pay-list	Labour and team-work,	Goat River	40 50	
Lawrence Hardware Co.	Hardware, etc.,	Illecillewaet River	2 00	
Sturdy Hardware Co	do	"	15 70	
Sutherland, J P	Labour and team-work,	"	36 00	
Pay-list	do	"	57 00	
Pay-list	do	Kettle River, West Fork	69 00	
Columbia River Lbr Co.	Lumber and hardware,	Kicking Horse River	51 29	
Crosby, Miss	Compensation,	"	40 00	
Blysak, J	Sacks,	"	6 70	
Hamilton, A C	Man and team, sacks,	"	9 45	
Henderson, Jas	Sacks,	"	26 40	
High, Sam	Dynamite and sacks,	"	30 60	
Lockwood, H G	Legal advice,	"	7 50	
Morrey, Geo	Sacks,	"	9 00	
McHattie, John	Hardware,	"	1 50	
Parson, Ltd, H G	Hardware, caps, and fuse,	"	9 20	
Sheirlock, W	Sacks,	"	3 40	
Suermond, J	Dynamite and sacks,	"	6 18	
Warren, C A	Hip-boots, caps, fuse, etc.,	"	58 95	
Wenman, W	Repairs to boots,	"	1 20	
Pay-list	Labour and team-work,	"	911 50	
Worthington, James	Sacks,	"	5 25	
Nelson Iron Works, Ltd.	Bolts,	Kootenay Lake	4 69	
Alice Arm Transfer Co.	Hauling boat, logs, gravel, supplies, etc.,	Kitsault River	55 75	
Crawford, W J	Team-hire,	"	20 00	
Falconer, T W	Dynamite, caps, fuse, hardware, etc.,	"	181 05	
Pay-list	Labour,	"	63 00	
West, W W	Piles, hauling pile-driver,	Cairns Point	103 00	
Wood-Vallance Hdwre Co	Saw-handles and iron,	"	11 81	
Pay-list	Labour and team-work,	"	587 00	
East Kootenay Lbr Co.	Lumber, etc.,	Moyie Flume	29 95	
Laird, W H	Delivering lumber and nails,	"	7 20	
Pay-list	Labour,	"	44 00	
Canadian Explosives, Ld	Dynamite and powder,	Mill Creek at Harrop	46 00	
Dominion Express Co	Express on waders,	"	35	
Hudson's Bay Co	High rubber boots,	"	23 00	
Pay-list	Labour and team-work,	"	389 00	
Beech, B L	Blacksmithing,	Natal	130 45	
Pay-list	Labour and team-work,	"	865 25	
Penticton, Corp of	Refund of one-half, protecting bridges, etc.,	Princeton Creek	226 14	
Wood-Vallance Hdwre Co	14 lb. Lord Ward chain,	Red Fish Creek	2 80	
Pay-list	Labour and team-work,	"	108 00	
Newes, W	Bolts in wagon,	Salmon River	1 45	
Prior & Co, Ltd, E G	Rope and hardware,	"	13 50	
Retail Merch Supply Co	Oats,	"	8 00	
Wilcox-Hall Co, Ltd	Axle-grease,	"	1 80	
Pay-list	Labour and team-work,	"	138 00	
Cameron-Ways Lbr Co.	Rubber boots,	Toby Creek	4 00	
Columbia Valley Sup Co.	Plough and hardware,	"	230 85	
Crierie, B G Frazer	Rubber boots,	"	6 00	
Invermere Construction & Supplies, Ltd	Fuse and hardware,	"	20 05	
Invermere Contract'g Co	Dynamite,	"	66 64	
Nickolson, Oscar	Hire of auto,	"	45 00	
Roberts, B	Blacksmithing,	"	31 69	
Sam Kee & Co	Rubber boots,	"	5 70	
Pay-list	Labour and team-work,	"	1,445 00	
Bowman, Orion	Lumber,	Vedder River	25 25	
Childerhose & Murphy	Wire,	"	19 20	
Cooper, Geo	Logs,	"	125 36	
Denmark & Burton	Caps, fuse, wire cable, powder, hardware, etc.,	"	350 64	
Gervan Hardware Co	Wire rope, chain, hardware, etc.,	"	125 22	
Ironside, George	Hardware, etc.,	"	13 15	
Nichol, David	Crib-logs,	"	241 98	
Robertson, J P	Coal,	"	46 00	
Smith, A N	Crib-logs,	"	8 00	
Thornton, Ed	do	"	198 20	
Webb, Horatio	Powder,	"	29 00	
Pay-list	Labour and team-work,	"	3,731 10	
				12,730 86
	Carried forward			1414157 93

TO WHOM PAID.	FOR WHAT SERVICE.			cts.	$ cts.
	Brought forward				1414157 93
	XII.—PUBLIC WORKS.—*Continued.*				
	Roads, Streets, Bridges, and Wharves.—*Continued.*				
	Vote No. 181.—Road Machinery.				
Dumond, Mark	Plough, ploughshares, etc.,	Cariboo		75 75	
Burnett Bros	Road roller, alterations and repairs,	"		886 60	
Crawford, Isaac	2 carts, 2 sets harness,	Greenwood		201 00	
Bruce & McGuire	Scrapers,	"		65 00	
Canadian Pacific Ry Co	Freight on grader and scrapers,	"		15 50	
Hunter, James	Donkey-engine, etc.,	Skeena		660 00	
do	Grader, plough, etc.,	"		441 14	
do	Grader, etc.,	"		379 40	
Brown, Fraser & Co	Ideal road-machine,	"		225 00	
Denal, John	Dump-wagon,	"		100 00	
Gt Northern Ry Line	Freight on wagon,	"		40 80	
Leahy, J W	Dump-wagon,	"		75 00	
Malcolm, James	Wagon,	"		126 50	
					3,291 69
	Vote No. 182.—Wharves Generally.				
Kershaw, J B	Hardware,	Atlin	District	7 40	
Pay-list	Labour,	"	"	45 00	
Alberni Lumber Co	Lumber,	Comox	"	41 60	
C P Railway Co	Freight,	"	"	16 00	
Carter Bros Lumber Co	Lumber,	"	"	18 16	
Dawley, W T	Hardware,	"	"	6 40	
Day, William	Piling,	"	"	151 20	
Govt Telegraph Service	Telegrams,	"	"	2 35	
Graham & McFarlan	Lumber,	"	"	26 97	
Janson, A	Hardware,	"	"	8 65	
Lyon, A M	do and rent of tent,	"	"	15 50	
Manson, J	Towing pile-driver,	"	"	15 00	
McKenzie & Son, J W	Hardware,	"	"	28 25	
McLennan, McFeely & Co	do and freight, etc.,	"	"	86 94	
McQuade & Sons, Peter	do	"	"	7 42	
Pidcock Bros	Piles and wire cable,	"	"	76 80	
Quathiaski Canning Co	Lumber-spikes, etc.,	"	"	351 58	
Smith, J A	Getting out piles,	"	"	18 00	
Tarbell & Son, C H	Cook-stove, utensils, and files,	"	"	25 55	
Thompson, N	Gasolene, etc.,	"	"	29 05	
Thulin Bros	do	"	"	26 10	
Pay-lists	Labour and team-work,	"	"	1,558 00	
Alex Jack (Indian)	Fir piling,	Cowichan	"	25 00	
Colvin, R M	Towing piles,	"	"	3 00	
Cowichan Merchants, Ld	Hardware,	"	"	24 81	
Genoa Bay Lumber Co	Lumber,	"	"	126 71	
Grassie & Son, Robert	Blacksmithing,	"	"	6 00	
Ordano, F	Towing piles and boat-hire,	"	"	18 00	
Shaw, James	Bolts,	"	"	2 25	
Pay-lists	Labour and team-work,	"	"	839 55	
Bennett, Paul	Nails,	Islands	"	1 50	
Brayshaw's Carriage Wks	Blacksmithing,	"	"	10 90	
Byers, W D	Launch-hire,	"	"	8 00	
Cook, —	Towing and freight,	"	"	39 00	
Cotsford, William	do	"	"	400 00	
Cox, J	Lumber,	"	"	28 00	
Dom Creosoting Co, Ltd	Creosoted fir piles,	"	"	3,045 00	
Easthom, J	Piles,	"	"	88 14	
Genoa Bay Lumber Co	Lumber,	"	"	90 14	
Harris, Howard	Lumber and towing piles,	"	"	30 60	
Hickman-Tye Hdwre Co	Snatch-block,	"	"	17 35	
Hill, James	Towing driver,	"	"	25 00	
Hoggan, R H	do	"	"	10 00	
Hoggan, W	Hardware and hire of pile-driver,	"	"	28 29	
Hunter, P	Launch-hire and lumber,	"	"	19 50	
Irvine, E	Cleaning wharf,	"	"	36 00	
Johnstone, J	Iron,	"	"	7 20	
Mouatt Bros	Piles, hardware, gasolene, etc.,	"	"	308 75	
McConvey, D	Piles,	"	"	191 23	
Paterson, W	Hardware, etc.,	"	"	13 05	
Payne, G	Lumber, piles, etc.,	"	"	37 35	
Percival, S	Hardware and oil,	"	"	182 89	
Reid, G	Launch-hire,	"	"	16 00	
Reynolds, F	Drift-bolts,	"	"	1 00	
Robson, W M	Cleaning wharf and shed,	"	"	7 50	
Salt Spring Trading Co	Paint and hardware, etc.,	"	"	45 35	
Sampson, Charles	Piles,	"	"	91 62	
Sidney Trading Co, Ltd	Hardware, gasolene, and provisions,	"	"	50 15	
Troop, H E	Piles,	"	"	6 00	
	Carried forward				1417449 62

TO WHOM PAID.	FOR WHAT SERVICE.			$ cts.	$ cts.
	Brought forward			.....	1417449 62
	XII.—PUBLIC WORKS.—*Continued.*				
	Roads, Streets, Bridges, and Wharves.—*Continued.*				
	Vote No. 182.—Wharves Generally.—Concluded.				
Trowsse, A R	Foreman, 3 days @ $5 ; telephone message, 45c ; Islands	District		15 45	
Victoria Lmbr & Mfg Co.	Lumber,	"	"	66 32	
Pay-lists	Labour and team-work,	"	"	3,072 50	
Brooks-McKenzie Lbr Co	Lumber,	Okanagan	"	32 91	
C P Railway Co	Freight,	"	"	35	
Carswell, Robert	Lumber,	"	"	55 68	
Gellatly & Sons, D E	Piles and timber,	"	"	98 60	
Gleed, J A	Repairing Rainbow Wharf,	"	"	13 20	
Hayman, Len	Spikes,	"	"	50	
Hodges, H P	Filling approach to Killiney Wharf,	"	"	15 40	
Kay, James	Repairing wharf, Peachland,	"	"	2 40	
Kelowna Carriage Works	2 iron bands,	"	"	1 00	
Kelowna Saw Mill Co, Ltd	Timber-spikes and freight,	"	"	22 42	
Leckie, W	Cable, iron, etc.,	"	"	49 19	
McAlpine, T J	(Paid) Livery-hire and boat fare,	"	"	14 90	
McCall, L D	Care of pile-driver and scow,	"	"	41 50	
Norris, L	(Paid) Railway fare, motor-hire, etc.,	"	"	17 95	
O K Lumber Co, Ltd	Timber,	"	"	105 17	
Okanagan Lake Boat Co.	Transporting planks,	"	"	4 13	
Okanagan Plumbing & Heating Co	1 globe valve,	"	"	2 25	
Thompson & McCall	Hardware and oil,	"	"	13 80	
Pay-lists	Labour and team-work,	"	"	288 00	
Fraser River Pile-driving Co, Ltd	Repairs to wharf at Snug Cove,	Richmond	"	478 60	
Kaleden Supply Co	Hardware,	Similkameen	"	51 51	
Partridge, J H	Drift-bolts,	"	"	14 40	
Penticton Hardware Co.	Hardware,	"	"	36 40	
Penticton Lumber Co	Timber,	"	"	31 48	
Preston, T R	do	"	"	110 60	
S Okanagan Transp'tn Co	Stage fares and freight,	"	"	20 25	
Pay-lists	Labour and team-work,	"	"	949 60	
Bella Coola Lumbering Co	Planks,	Skeena	"	177 30	
Brink, K	Gasolene,	"	"	9 50	
B C Packers' Assoc'n	do	"	"	8 00	
Brynildsen & Co, B	Hardware and grease,	"	"	94 70	
Christensen, A C	Hardware, gasolene, etc.,	"	"	173 92	
Cochrane, D	Spikes and nails,	"	"	3 50	
Fairbairn, W H	Repairing boat-house and float,	"	"	16 75	
Gordon, Esten	Blacksmithing,	"	"	18 95	
Johnson, F A	Timber,	"	"	1,719 23	
Saloomt Lbr Co, The	do	"	"	242 97	
Pay-lists	Labour and team-work,	"	"	2,180 50	
Deschamps, J S	Timber and logs,	Ymir	"	169 57	
Gt Northern Express Co.	Express charges,	"	"	1 20	
Kootenay Launch Club	Logs,	"	"	60 00	
Rutherford, Wm	Cedar log,	"	"	4 56	
West, W W	1 log,	"	"	6 00	
Pay-lists	Labour,	"	"	129 50	
					19,085 36
	Vote No. 183.—Wharf, Prince Rupert (Maintenance).				
Albert & McCaffery	Coal			189 00	
Akerberg, Thompson & Co	Blacksmithing and repairs to float			41 35	
Anderson, P W	Renewing fender-piles as per contract			578 90	
Atlin Fisheries, Ltd	Purchase of building on the Government Wharf			387 29	
City of Prince Rupert	Electric light			618 48	
City Collector, P Rupert	Water			123 81	
City Collector, P Rupert	Telephone			116 00	
Dawson, F G	Claim for pilot-bread lost from wharf			5 00	
Frizzell, Mrs S	Cheese-cloth			2 10	
Hickey, J L	Hardware, labour, etc			34 70	
Howe & McNulty	Hose and couplings, rope, stove, etc., and hardware			80 13	
Hunter, James	Work on doors, blacksmithing, etc			152 37	
Kaien Hardware Co	Hardware, hose, etc			96 88	
Kelly, Douglas & Co	50 lb. sugar			4 00	
Morgan & Co, J R	Logs and stumpage			63 40	
McColl, Geo P	Chloride of lime, soap, etc			8 80	
McRae Bros	Stationery			5 00	
Newcombe, R L	Towing logs, etc			101 25	
Orme, C H	Drugs, etc			14 00	
Pacific Cartage, Ltd	Cartage, coal, etc			71 50	
Parkin-Ward Electric Co	Electrical work and material			224 73	
Pony Express	Cartage			1 50	
Postmaster	Rent of box, $12 ; stamps, $15			27 00	
P Rupert Boat House	Towing refuse			5 00	
	Carried forward			.....	1436534 98

TO WHOM PAID.	FOR WHAT SERVICE.			$ cts.	$ cts.
	Brought forward			.....	1436534 98
	XII.—PUBLIC WORKS.—*Continued.*				
	Roads, Streets, Bridges, and Wharves.—*Continued.*				
	Vote No. 183.—Wharf, Prince Rupert (Maintenance).—Concluded.				
Prince Rupert Coal Co..	Coal			20 00	
P Rupert Sash & Door Co	Door			4 65	
Rowe, C O.	Repairing basin			2 00	
Silversides Bros.	Sign for float			3 00	
Smith & Mallett	Plumbing and repairs to water-main			142 51	
Steen & Longwill.	Repairs to water-main and material.			133 00	
Stork, Fred.	Repairs to concrete piles and roof of warehouse, material, etc.			148 27	
Thompson Hdwre Co....	Hardware, etc.			69 71	
Tite, Geo D.	Towels, cheese-cloth, etc.			5 85	
Union Transfer Co.	Cartage, etc.			6 00	
Westholme Lumber Co..	Lumber			1,069 05	
Pay-list	Labour			1,906 76	
					6,462 99
	Vote No. 184.—Bridges Generally.				
Alberni Lumber Co	Lumber,	Alberni	District	309 68	
Battye, O.	do	"	"	71 85	
C P Railway Co (E & N)..	Freight,	"	"	2 48	
Coleman, E.	Blacksmithing,	"	"	14 66	
Costen, T.	Painting signs,	"	"	3 50	
Custance & Co.	Hardware, paint, oil,	"	"	63 45	
Holberg Mercantile Co..	Hardware,	"	"	29 95	
Macintyre, A D.	Hardware, rope, paint, brush, etc.,	"	"	25 40	
Nanoose Lumber Co.	Lumber,	"	"	309 24	
Paine, E R.	Nails, blocks for wire rope,	"	"	23 50	
Rushton, P.	Blacksmithing,	"	"	52 59	
Pay-lists.	Labour and team-work,	"	"	3,767 59	
Nor Power & Lbr Co, Ltd	Lumber,	Atlin	"	494 68	
Schulz & Sinclair	Labour *re* raising and covering bridge,	"	"	60 00	
Pay-lists.	Labour and team-work,	"	"	966 50	
Albee, L A.	Bridge-piles and haulage,	Cariboo	"	251 85	
Alexander, J.	Lumber and hay,	"	"	183 25	
Assman, J.	Haulage,	"	"	162 45	
Austin & Co	Blacksmith's coal,	"	"	25 00	
Austin Grain, Produce & Commission Co	Range,	"	"	75 00	
Bateman, J E.	Hay,	"	"	259 25	
Beaudoin, J.	do	"	"	247 50	
Bentz, C.	Haulage,	"	"	305 63	
Bogue & Brown Lbr Co..	Lumber,	"	"	725 56	
Boyd, A E.	Hardware, oil, etc.,	"	"	24 35	
Boyd, J (Estate of).	Meals, beds, horse-feed,	"	"	6 00	
Boyd, Mrs J F.	do	"	"	7 90	
Brawn, H	Labour and team-hire,	"	"	36 00	
Bronger, J.	Payment for right-of-way,	"	"	200 00	
Browne & Pigeon	Launch-hire and freighting,	"	"	114 31	
Burnstead, P.	Hay,	"	"	150 00	
Can Foundry & Supply Co	Wire rope,	"	"	70 00	
Canadian Express Co....	Expressage,	"	"	2 85	
Carmichael, B E.	Lumber and hardware,	"	"	5 85	
Chard, C E	Hay,	"	"	6 00	
Clarke, F.	Piling,	"	"	52 08	
Cocker, S.	Hire of wagon and sleigh,	"	"	46 50	
Coe, J.	Hay,	"	"	38 68	
Collins, J M	Freight,	"	"	1 50	
Cookson Plumb & Htg Co	Plumbing,	"	"	12 30	
Coughlan & Sons.	Ironwork,	"	"	1,378 47	
Cowan Supply Co.	Hardware,	"	"	35 00	
Culleton, M.	Meals, beds,	"	"	22 00	
Cummings, F D.	Oats,	"	"	40 42	
Darling & Co, F.	Inspection of material for bridge, etc.,	"	"	628 21	
Dickinson & Sons.	Lumber,	"	"	231 33	
Erickson, P.	Logging-chain,	"	"	2 00	
Ewert, Dr C.	Professional services and hospital board,	"	"	33 00	
Ferguson, W G	Blacksmithing,	"	"	111 25	
Ferrin, Donoghust Co...	Augers,	"	"	2 50	
Finlaison, C S	Coal,	"	"	18 50	
Fletcher & Holt.	Oats,	"	"	27 00	
Forbes, G.	Hauling lumber,	"	"	359 25	
Ft Fraser Mercantile Co.	Hardware,	"	"	2 30	
Fort George & Alberta Tel & Electric Co, Ltd.	Telephone-rent,	"	"	25 50	
Fort George Drug Co ...	Drugs for horses,	"	"	52 65	
Ft George Trdg & Lbr Co	Lumber, etc.,	"	"	43 35	
Foster, D A.	Rock-fill and riprap, track-jack,	"	"	2,007 87	
	Carried forward			.....	1442997 97

TO WHOM PAID.	FOR WHAT SERVICE.			$ cts.	$ cts.
	Brought forward			.....	1442997 97
	XII.—PUBLIC WORKS.—*Continued.*				
	Roads, Streets, Bridges, and Wharves.—*Continued.*				
	***Vote No. 184.—Bridges Generally.*—Continued.**				
Fraser & Co, Ltd, J A. .	Hardware, hire of mill-engine,	Cariboo	District.....	306 25	
Freeburn, J.....	Hauling rock,	"	"	69 00	
Garvey, R.....	Livery-hire,	"	"	3 00	
George Little Lbr Yards.	Lumber,	"	"	254 65	
Goldie, H.	Powder, caps, hay, meals, and beds,	"	"	199 15	
Goodman Supply Co....	Hardware,	"	"	99 10	
Govt Telegraph Service..	Telegram,	"	"	75	
Grace, H.....	Making and painting signs,	"	"	9 00	
Graham, J..... ...	Hay,	"	"	285 30	
G T P Railway Co.....	Freightage,	"	"	366 37	
Grierson, S.....	Haulage and freight,	"	"	8 69	
Hall, E.....	Hardware, boat-hire, oats,	"	"	153 45	
Hammond, B.....	Haulage, $46.45; hire of canoe, $10;	"	"	56 45	
Haney, R.....	Fare,	"	"	11 15	
Hilborn, S L.....	Oats,	"	"	125 00	
Hill & Paul.....	Horse-feed,	"	"	9 50	
Hood's, Ltd.....	Tent, hardware,	"	"	53 55	
Houghtalling, K A.....	Haulage,	"	"	44 60	
Howison Estate.....	Hardware,	"	"	193 10	
Hudson's Bay Co.....	Lumber, hardware, tents, etc.,	"	"	315 55	
Hunt, T.....	Firewood,	"	"	4 00	
Ingham, J.....	Repairs to harness,	"	"	2 00	
Ingham Bros.....	Harness and repairs,	"	"	155 18	
James, G A.....	Drugs,	"	"	2 60	
Johnson, W A	Expenses,	"	"	39 65	
Johnston, J M	Hardware, provisions,	"	"	865 85	
Kemp, J.....	Hay and oats,	"	"	17 85	
Kennedy, Blair & Co, Ld	Hardware,	"	"	191 65	
Kenyon, F.....	Hauling and freighting, lumber,	"	"	215 98	
Killoren, D.....	Freighting and hauling,	"	"	152 90	
Lawton, L	Saw,	"	"	4 00	
Lazzerin & Bros, J.....	Blacksmithing,	"	"	252 16	
Leith, J	Tents, stove, chairs, etc.,	"	"	100 00	
Li Cow.....	Cordwood,	"	"	10 00	
Loyal, W.....	Expenses as Bridgeman,	"	"	6 80	
Magoffin & Co, S S.....	Powder,	"	"	342 00	
Marion, O	Plates, cups, spoons, etc.,	"	"	10 40	
Marion, T.....	Hardware, cutlery, etc.,	"	"	78 85	
Marshall, E A.....	Measuring rock,	"	"	15 00	
Meiss, A.....	Horse-feed,	"	"	50	
Mikkelsen, J.....	Hay,	"	"	21 00	
Miller, W.....	Launch-hire, etc.,	"	"	65 25	
Miller, Mrs J N	Meals and beds	"	"	12 00	
Milne, W J.....	Oats,	"	"	449 25	
Milne, S.....	Oats and stove-pipe,	"	"	286 35	
Moffat Bros.	Hay,	"	"	180 71	
Macdonald, D.....	Nails and bolts,	"	"	3 00	
McCorkell Bros.....	Hardware, hay, gasolene, freight, etc.,	"	"	973 77	
McGaghran, J	Fare and wages,	"	"	122 15	
McKeen, H E.....	Blacksmithing,	"	"	58 50	
McLaren, W.....	Freight,	"	"	20 00	
McMillan, J H.....	Hay, haulage, use of sleigh,	"	"	258 50	
McNeil, S.....	Oat-hay,	"	"	1 50	
McPhail, A	Oats,	"	"	52 57	
Nechaco Drug Co.....	Stationery, drugs, etc.,	"	"	19 25	
Nechaco Stables	Team-hire, etc.,	"	"	103 50	
Northern Lumber & Mercantile Co.....	Lumber, hardware, oil, etc.,	"	"	11,241 30	
Nicholson, O..	Hire of wagon,	"	"	25 00	
Peace River Trading Co.	Hardware,	"	"	11 20	
Perrin Donoghue & Co ..	Soup-bowls,	"	"	3 60	
Phillips, D.....	Meals, beds.	"	"	224 98	
Porter Hay & Grain Co..	Hay, oats, bran, etc.,	"	"	182 36	
Porter, M.....	Hardware, hay, oats,	"	"	110 90	
P George Sash & Door Co	Cutting oak wedges,	"	"	3 50	
Reeves, C E	Hardware,	"	"	10 90	
Reid Bros	Blacksmithing,	"	"	48 75	
Reid, J (Estate of).....	Lumber and jacks,	"	"	86 36	
Robertson & Hackett ...	Lumber,	"	"	538 30	
Rollay, O.....	Making drift-bolts and towing logs,	"	"	18 50	
Ross, J S.....	Piling,	"	"	48 00	
Ross & Howard Iron Works Co, Ltd.....	Iron,	"	"	686 33	
Ruttan, J L....	Lumber,	"	"	5,072 79	
Schaake Mfg Co.....	Angle-blocks, rods, bolts, etc.,	"	"	4,247 77	
Schafer, W	Hay,	"	"	250 00	
Scott Bros.....	Meals,	"	"	9 50	
	Carried forward			.....	1442997 97

TO WHOM PAID.	FOR WHAT SERVICE.			$ cts.	$ cts.
	Brought forward			.....	1442997 97
	XII.—PUBLIC WORKS.—*Continued.*				
	Roads, Streets, Bridges, and Wharves.—*Continued.*				
	Vote No. 184.—Bridges Generally.—Continued.				
Shepherd, J	Meals and horse-feed, hay, etc.,	Cariboo	District	152 19	
Slade, C W	Poles,	"	"	30 00	
Steacey, A R	Gasolene,	"	"	2 75	
Snell, G	Fares and expressage,	"	"	7 55	
Stewart, D	Piling,	"	"	162 40	
Strand, J	Beds and meals,	"	"	47 00	
Tannock, J R	Tent,	"	"	20 00	
Thrower, W	Hay,	"	"	12 00	
Trembley, H	Hardware,	"	"	19 00	
Turnbull, G	Blacksmithing,	"	"	25 75	
Tyner, T	Haulage,	"	"	18 95	
Van Engineering Works	Ironwork and freight,	"	"	8,119 14	
Vanderhoof Hdwre Co	Rope, oats,	"	"	56 55	
Wall, T B	Fares, telegrams, stamps, etc.,	"	"	36 50	
Walters, H L	Dynamite, caps, fuse, hay, oats,	"	"	42 34	
Wappling, A	Constructing bridge,	"	"	500 00	
Webster, W, Jr	Oats,	"	"	62 50	
Welch, P	Hardware, tents, blankets, etc.,	"	"	624 31	
Weldon, J H	Lumber,	"	"	118 24	
Weyenberg, Mrs	Meals,	"	"	1 50	
Williams & Cole	Horse-medicine,	"	"	8 25	
Williams, J F	Meals and bed,	"	"	1 50	
Wimbles, A	Services of Engineer and assistant,	"	"	30 25	
Windt, H T	Meals, beds, horse-feed, hire of sawmill, etc.,	"	"	135 50	
Wright, A W	Hauling iron and lumber,	"	"	47 75	
Young, A	Auto-hire,	"	"	15 00	
Pay-lists	Labour and team-work,	"	"	56,155 55	
Abbottsford Tbr & Tdg Co	Lumber,	Chilliwack	"	918 47	
Bowman, O	do	"	"	11 83	
Fir Tree Lumber Co	do	"	"	200 82	
Hipkoe, R	Building bridge,	"	"	35 00	
Merryfield Bros	Spikes,	"	"	49 60	
Shearwater Lumber Co	Lumber,	"	"	53 19	
Sheldon Co	Spikes,	"	"	3 50	
Trapp & Co, Ltd, T J	Iron rod and auger,	"	"	28 64	
Pay-lists	Labour and teaming,	"	"	1,662 70	
Alton, T	Lumber,	Columbia	"	207 12	
Blackstone, E M	Powder, fuse,	"	"	6 95	
Cameron Ways Lmbr Co	Lumber,	"	"	133 05	
C P Railway Co	Freight on lumber,	"	"	31 45	
Columbia River Lbr Co	Lumber,	"	"	193 71	
Columbia Val Supply Co	Hardware,	"	"	36 10	
Columbia Val Orchards	Lumber,	"	"	33 00	
Cuthbert, A G	do	"	"	14 00	
Ellis & Stoddart	do	"	"	20 00	
Fairmont Trading Co	Hardware,	"	"	9 28	
Hamilton, A C	Freighting and hauling,	"	"	56 20	
Haupt, W	Blacksmithing,	"	"	13 00	
Invermere Con & Supplies	Fuse, hardware, etc.,	"	"	32 35	
Kemprude, C	Rope,	"	"	3 06	
Macdonald Bros	Hardware,	"	"	11 75	
Nicholson, C	Fencing and haulage,	"	"	70 00	
Nelson, E B	Blacksmithing,	"	"	23 95	
Parsons, Ltd, H G	Hardware,	"	"	68 06	
Peterborough Trading Co	Rope, spoons, shovels,	"	"	25 95	
Pitts, J C	Hardware and haulage,	"	"	92 71	
Rolston, D R	Hardware,	"	"	11 50	
Warren, C A	Iron, spikes, auto-hire,	"	"	28 57	
Wilmer Mercantile Co	Hardware,	"	"	43 00	
Wolfenden, A	do	"	"	60 55	
Pay-lists	Labour and team-work,	"	"	15,479 22	
Armstrong, Morrison & Co, Ltd	Bolts, block, wire rope, freight, etc.,	Comox	"	506 19	
Ball, A B	Nails,	"	"	1 70	
Berg, J	Launch-hire,	"	"	60 00	
Billy, W	do	"	"	20 00	
Benson, J	Fares, straw,	"	"	21 40	
Brooks, Bidlake Cedar Co	Lumber,	"	"	357 32	
Brown Bros	do	"	"	52 40	
Can Fairbanks-Morse Co	Supplies for tow-boat,	"	"	90	
Carter Bros, Ltd	Lumber,	"	"	232 36	
Comox Logging & Ry Co	Powder,	"	"	15 00	
Deighton, A G	Hardware, etc.,	"	"	8 75	
E & N Railway	Freight,	"	"	4 90	
Fraser & Bishop	Hardware,	"	"	104 92	
Graham & McFarlan	Lumber,	"	"	9 90	
Grantham Saw Mill Co	do	"	"	117 50	
	Carried forward			.....	1442997 97

TO WHOM PAID.	FOR WHAT SERVICE.			$ cts.	$ cts.
	Brought forward			.....	1442997 97
	XII.—PUBLIC WORKS.—*Continued.*				
	Roads, Streets, Bridges, and Wharves.—*Continued.*				
	Vote No. 184.—Bridges Generally.—Continued.				
Kilpatrick, D	Lumber,	Comox	District	742 74	
Leighton, G B	Hardware,	"	"	158 90	
Mackay, J	Lumber,	"	"	48 00	
McKenzie & Son, J W	Washers and bolts,	"	"	259 73	
McLennan, McFeely & Co, Ltd	Hardware,	"	"	73 33	
Powell River Co	Hardware, cartage, lumber, gasolene, powder, etc.,	"	"	536 47	
Piercy, A	Lumber,	"	"	84 20	
Radford, H L	Freightage,	"	"	4 10	
Royston Saw Mill Co, Ld	Lumber,	"	"	1,020 88	
Skinner, J J	Wire rope, bolts, etc., hire of blocks and tackle,	"	"	38 10	
Springer, J	Hire of donkey-engine,	"	"	20 00	
Swift, F H	Taking measurements, photographs, etc.,	"	"	5 00	
Tarbell & Son, C H	Hardware,	"	"	75 47	
Tweedie, C	Lumber,	"	"	55 96	
Thulin Bros	Provisions,	"	"	3 50	
Union S S Co of B C	Freight on lumber,	"	"	51 00	
Vanc Machinery Depot	Rental of machinery,	"	"	51 10	
Wood, Vallance & Leggat.	Wire rope, etc., and freightage,	"	"	60 95	
Pay-lists	Labour and team-hire,	"	"	10,772 40	
Ballard, H	Hardware,	Cowichan	"	42 42	
Cox, A G	Ironwork,	"	"	2 00	
Cowichan Merchants, Ld	Hardware,	"	"	320 56	
Dobeson, J & J O	Ironwork,	"	"	1,214 02	
E & N Railway Co	Freight,	"	"	7 80	
Grassie & Son, R	Hardware and ironwork,	"	"	55 90	
Hillcrest Lumber Co	Lumber,	"	"	1,476 89	
Gillespie, G K	Launch-hire,	"	"	5 00	
Livingston, J	Piles,	"	"	55 44	
Mainland Lumber & Shingle Co	Lumber,	"	"	568 85	
McMillan, D C	Inspection of iron-work,	"	"	10 00	
New Ladysmith Lbr Co	Lumber,	"	"	933 84	
Oliver, W E	Trees for piles,	"	"	21 00	
Shaw, J	Blacksmithing,	"	"	10 50	
Victoria Lbr & Mfg Co	Lumber,	"	"	1 25	
Williscroft, W A	General Superintendent, fares and expenses,	"	"	96 50	
Wood, Mrs M	Nails,	"	"	10 00	
Pay-lists	Labour and team-hire,	"	"	6,126 10	
Canadian Pacific Ry Co	Freightage,	Cranbrook	"	30 00	
Can Western Lbr Co, Ld	Lumber,	"	"	2,925 12	
City Transfer & Warehouse Co	Dynamite, fuse, caps,	"	"	33 60	
Cranbrook Foundry & Machine Shops	Repairs to engine and supply,	"	"	47 25	
Cranbrook Sash & D Co	Lumber,	"	"	177 67	
Darling & Co, F	Inspection of material,	"	"	106 24	
Dezall, F	Drills, bolts, chain, etc., and blacksmithing,	"	"	188 70	
East Kootenay Lbr Co	Lumber,	"	"	294 68	
Fort Steele Trading Co	Hardware,	"	"	15 21	
Fort Steele Livery	Lumber,	"	"	12 80	
Johnson, W E	Making plate,	"	"	1 50	
Kootenay Telephone Lines, Ltd	Long-distance calls,	"	"	50	
Lewis, J P	Lumber,	"	"	62 95	
Mellor, A	Rope, nails,	"	"	21 39	
McBride, J D	Hardware,	"	"	169 78	
Otis-Staples, Lbr Co, Ltd	Lumber,	"	"	65 32	
Parks & Co, F	Hardware, coal, coal-oil, paint, etc.,	"	"	465 71	
Ross & Howard Iron Work Co, Ltd	Bolts, blocks, screws, etc.,	"	"	2,398 55	
Summers, T J	Nails, axe-handles, etc.,	"	"	11 60	
Unionist Investment Co	Caps, fuse, dynamite,	"	"	15 50	
Yahk Lumber Co, Ltd	Lumber,	"	"	174 86	
Pay-lists	Labour and team-work,	"	"	9,938 25	
Beaver River Lbr Co, Ld	Lumber,	Delta	"	222 37	
Berney, J	Boat,	"	"	20 00	
Brackman-Ker Milling Co	Hay, oats, bran,	"	"	45 20	
B C Anchor Fence Co, Ld	Iron gates,	"	"	35 00	
B C Electric Railway Co	Freight,	"	"	10 67	
Brown, J L	Hay,	"	"	16 50	
Burrows & Son, A J	Harness, wire rope, etc.,	"	"	44 95	
Clark, T W	Fares, meals, horse-feed, etc.,	"	"	54 40	
Davidson, S J	Pipe-collar,	"	"	8 00	
Drinkwater, J	Lumber,	"	"	10 00	
Galbraith & Son	do	"	"	149 33	
Hope & Farmer	do	"	"	44 48	
	Carried forward			.....	1442997 97

TO WHOM PAID.	FOR WHAT SERVICE.			$ cts.	$ cts.
	Brought forward			.....	1442997 97
	XII.—PUBLIC WORKS.—*Continued.*				
	Roads, Streets, Bridges, and Wharves.—*Continued.*				
	Vote No. 184.—Bridges Generally.—Continued.				
Johnson, H.	Repairing lines,	Delta	District	2 00	
Lanning, Fawcett & Wilson, Ltd	Oil, grease, lanterns,	"	"	11 35	
Livingstone, F	Lumber,	"	"	60 00	
Matheson, D	Oats and hay,	"	"	72 00	
Morrison & Matheson	Blacksmithing,	"	"	20 95	
Murrayville Livery	Hay,	"	"	23 10	
McIntyre, M	Lumber,	"	"	21 45	
McLean Lbr Co, R B	do	"	"	595 02	
Parr, H V	Hardware, etc.,	"	"	17 35	
Simson, Balkwill & Co, Ld	Wire rope and clamps,	"	"	9 06	
Shepherd, H T	Blacksmithing,	"	"	5 50	
Trapp & Co, Ltd, T J	Hardware,	"	"	107 96	
Ward, J	Signs,	"	"	7 00	
White, Wm.	Couplings, bolts,	"	"	10 80	
Pay-lists	Labour and team-work,	"	"	4,558 80	
Abernethy & Lougheed	Lumber,	Dewdney	"	43 85	
Anderson & Lusby	Hardware,	"	"	20 50	
Bonson, J.	Fares and freightage,	"	"	10 15	
Bouchir, M	Lumber,	"	"	121 38	
Brunette Saw Mill Co, Ld	do	"	"	850 85	
Can Western Lbr Co, Ld	do	"	"	35 08	
Charlton, M B	Nails,	"	"	2 40	
Cunningham Hdwre Co.	do	"	"	19 60	
Dale, J M	do	"	"	8 21	
Dewdney Trading Co	do	"	"	3 15	
Docksteader, A	Lumber,	"	"	40 00	
Eagle, S	Drift-bolts,	"	"	25 00	
Hammond Cedar Co, Ld.	Lumber,	"	"	151 04	
Maple Ridge Lbr Co, Ld.	do	"	"	107 41	
Mission Hardware Co	Hardware,	"	"	79 40	
Ovens, T.	Drift-bolts,	"	"	30 00	
Reid, I A	Drift-bolts, staples, nails,	"	"	11 25	
River Lumber Yard	Lumber,	"	"	89 57	
Spink, T A	Haulage,	"	"	9 50	
Thornton, M A	Nails,	"	"	5 50	
Ward, G A.	Hauling and freight,	"	"	36 00	
Pay-lists	Labour and team-work,	"	"	2,725 40	
Barker, F C	Lumber,	Esquimalt	"	215 00	
Beaucherie, A	Launch-hire,	"	"	8 00	
Buck, B	Freightage,	"	"	10 00	
Charters, M B	Lumber,	"	"	12 27	
Cowan, T J	Hauling,	"	"	25 00	
Lemon & Gonnason Co.	Lumber, hauling, etc.,	"	"	307 64	
Powell & Sons, G	Hardware,	"	"	187 13	
Shawnigan Lumber Co.	Lumber,	"	"	49 57	
Pay-lists	Labour and teaming,	"	"	897 35	
Baker Lumber Co, Ltd.	Lumber,	Fernie	"	448 03	
Berigan M A	Blacksmithing,	"	"	127 00	
C P Railway Co	Freighting,	"	"	110 99	
Chardon, P	Lumber,	"	"	85 50	
Darling & Co, F	Steel cable, etc.,	"	"	1,183 08	
Duncan, T	Watching bridges, 32 hours @ 30c. per hour,	"	"	9 60	
Duthie Co	Hardware, coal-oil,	"	"	23 46	
Eyre, F	Blacksmithing,	"	"	13 80	
Fernie Iron Works	Steel, cutting and drilling,	"	"	13 30	
Gash, D	Cartage,	"	"	75	
G N Railway	Freighting,	"	"	60 00	
G N Express Co	Expressage,	"	"	50	
Hewat, R	Fare, meals, beds,	"	"	11 35	
Kennedy, E	Watching bridge, 32 hours @ 30c.,	"	"	9 60	
Kennedy & Mangan	Lumber,	"	"	29 13	
Morrissey, Fernie & Michel Ry	Making and threading iron rods, tightening cables, etc.,	Fernie	District	10 90	
McDougall, A	Lumber,	Fernie	District	35 00	
McKee, J	Watching bridges, 60 hrs. @ 30c.; 60 hrs. @ 10c.;	"	"	24 00	
Quail, J D	Hardware,	"	"	26 32	
Ross-Saskatoon Lbr Co.	Lumber, hardware, etc.,	"	"	542 60	
Scott, F B	Expenses *re* bridge inspection,	"	"	9 20	
Pay-lists	Labour and team-work,	"	"	3,476 90	
Allen & Norris	Lumber,	Grand Forks	"	213 09	
Bertois, J A	Rope, nails, powder, fuse, etc.,	"	"	31 20	
Boundary Iron Works	Washers,	"	"	3 30	
Campbell & Liddicoat	Blacksmithing,	"	"	32 55	
Gardner & Miller	Nails,	"	"	2 80	
Gaw, R	Lumber,	"	"	501 50	
Grand Forks Transfer	Hauling,	"	"	1 00	
	Carried forward			.....	1442997 97

TO WHOM PAID.	FOR WHAT SERVICE.			$ cts.	$ cts.
	Brought forward			.....	1442997 97
	XII.—PUBLIC WORKS.—*Continued.*				
	Roads, Streets, Bridges, and Wharves.—*Continued.*				
	Vote No. 184.—Bridges Generally.—Continued.				
Liddicoat, W	Blacksmithing,	Grand Forks	District	35 90	
Manly, W K C	Hardware,	"	"	20 00	
Miller & Gardner	Nails,	"	"	29 95	
McDougall, A E	Lumber, haulage, freight, nails, etc.,	"	"	66 50	
Newby, T	Lumber, hardware, etc.,	"	"	4 45	
Scott Bros	Haulage,	"	"	4 25	
Pay-lists	Labour and team-work,	"	"	1,320 87	
Allen & Norris	Lumber,	Greenwood	"	19 51	
B C Copper Co, Ltd	Iron,	"	"	1 95	
Boundary Iron Works, Ld	Castings, blocks, bolts, rods, etc.,	"	"	1,772 81	
C P Railway Co	Freight,	"	"	40 80	
Docksteader, D	Hauling,	"	"	17 50	
Dumont, M	Dynamite, fuse, caps, lumber, etc.,	"	"	48 89	
Fleming, W B	Freight,	"	"	1 10	
Guise, G O	Auto-hire,	"	"	30 00	
McDougall, A E	Iron,	"	"	3 00	
O'Donnell, W	Dowels, bolts, freight,	"	"	14 94	
Powers, W	Lumber,	"	"	471 75	
Rock Creek Tdg Co, Ltd.	Oil, paint, brushes, etc.,	"	"	83 67	
Pay-lists	Labour and team-work,	"	"	2,942 25	
Cox, J	Lumber,	Islands	"	30 25	
Mouat Bros & Co, Ltd	Nails, rope, lumber,	"	"	39 00	
Genoa Bay Lumber Co	Lumber,	"	"	8 05	
Salt Spring Tdg Co, Ltd.	do	"	"	5 65	
Pay-lists	Labour and team-work,	"	"	644 25	
Arrow Lakes Lumber Co	Nails, coal, iron, etc.,	Kamloops	"	7 73	
Buchan, W F	Gasolene, etc.,	"	"	11 20	
Bruhn, R W	Fares, meals, telephone calls, etc.,	"	"	30 41	
C P Railway Co	Freight,	"	"	39 51	
Carr, A C	Files and wire,	"	"	12 02	
Christoffersen, C	Blacksmithing,	"	"	6 50	
Columbia Riv Lumber Co	Lumber,	"	"	22 45	
City of Kamloops	Electric light, $527.70 ; lamp, 30c. ; repairs, 50c. ;	"	"	528 50	
Dalgleish, N S	Hardware,	"	"	53 21	
Dominion Lands Office	Timber,	"	"	80 48	
Dominion Express Co	Expressage,	"	"	50	
Dunn, W J	Lumber,	"	"	184 39	
Ellis & Co, W J	Rotary force-pump, repairs, etc.,	"	"	36 45	
Granite Trading Assoc'n	Oats, hardware, coal-oil,	"	"	14 40	
Greer, W W	Lever for gas-engine,	"	"	2 50	
Hargraves, W	Threading bolts, etc.,	"	"	7 50	
Hardie, H	Services as Watchman, 12 months @ $10,	"	"	120 00	
Hastie, G	Wagon-reach and iron,	"	"	4 25	
Lawrence Hdwre Co, Ld.	Hardware, wire, rope,	"	"	55 38	
Mallery Drug Co, Ltd	Drugs,	"	"	8 00	
Marsh Bros	Lamps,	"	"	2 40	
Mosley, J	Hay,	"	"	14 60	
McDiarmid, S J	Hardware, etc.,	"	"	19 75	
Newnes, W	Iron, bolts, etc.,	"	"	35 75	
Palmer & Co, E A	Tallow,	"	"	1 50	
Peacock, W R	Hay,	"	"	1 20	
Prior & Co, Ltd, E G	Iron and poles,	"	"	11 25	
Rabie, J	Hay,	"	"	11 12	
Reilly & Co, I R	Lumber,	"	"	59 37	
Smith & Son, W R	Hardware,	"	"	20 70	
Sutherland, J J	Horse-feed,	"	"	6 40	
Swaney, D L	Fares,	"	"	6 00	
Syson, F	Nails, axle-grease,	"	"	8 60	
Ward, H B	Egnitor,	"	"	11 05	
Wilcox, Hall Co, Ltd	Steel cable and rope,	"	"	16 67	
Wilson & Co, T	Rope,	"	"	2 70	
Pay-lists	Labour and team-work,	"	"	4,194 34	
Byers, Geigerich Green Co	Iron, rope, coal, nails, etc.,	Kaslo	"	91 12	
Burden & Watson	Lumber,	"	"	99 50	
Crawford Bay Store	Coal, nails, etc.,	"	"	11 30	
Creston Mercantile Co	Iron, spikes,	"	"	10 75	
Fulmer, J H	Dog-irons, clamps, etc.,	"	"	7 35	
Johnson, A G	Dynamite and fuse,	"	"	9 75	
McCreath, H S	Freight,	"	"	17 65	
Nelson Iron Works, Ltd.	Labour and material *re* straightening bridge-rods,	"	"	79 95	
Speers, S A	Hardware,	"	"	14 90	
Pay-lists	Labour and team-work,	"	"	3,548 91	
Beloud, G	Oats,	Lillooet	"	70 00	
Bridge Creek Cattle Ranch	Hardware, meals, beds, horse-hire, lumber, etc.,	"	"	54 50	
Canim Lake Trading Co.	Spikes, nails,	"	"	3 50	
Cullen, D	Freightage,	"	"	8 46	
	Carried forward			.....	1442997 97

TO WHOM PAID.	FOR WHAT SERVICE.			$ cts.	$ cts.
	Brought forward			.....	1442997 97
	XII.—PUBLIC WORKS.—*Continued.*				
	Roads, Streets, Bridges, and Wharves.—*Continued.*				
	Vote No. 184.—Bridges Generally.—Continued.				
Dixon, M	Hay,	Lillooet	District	7 50	
Durban, W	Drift-bolts,	"	"	2 00	
Farwell, G E	Labour and horse-hire *re* survey,	"	"	8 00	
More, J K	Beds and board,	"	"	14 50	
Payne, C J	Oats and hay,	"	"	110 30	
Spetch, S W	Wrench, and tightening rods,	"	"	17 85	
Viera, A	Ropes,	"	"	6 00	
Webster, L L	Oats,	"	"	350 00	
Pay-lists	Labour and team-work,	"	"	2,674 97	
A & B Livery	Haulage and express,	Nanaimo City	"	3 00	
Bennett, P	Nails, spikes, etc.,	"	"	9 34	
New Ladysmith Lbr Co.	Lumber,	"	"	4 28	
Western Fuel Co	do	"	"	49 25	
Pay-list	Labour and team-work,	"	"	99 75	
Clark Lbr Co, Ld, W F	Lumber,	Newcastle	"	22 67	
Gifford, S	Cedar poles,	"	"	25 90	
Ladysmith Hardware Co	Nails, coal-tar, etc.,	"	"	9 70	
New Ladysmith Lbr Co.	Lumber,	"	"	12 83	
Peterson, C	Spikes,	"	"	1 20	
Sovereign Mill Co	Lumber,	"	"	132 83	
Wickers, C F	Hauling lumber,	"	"	75	
Wright & Son, R	Drift-bolts,	"	"	3 98	
Pay-lists	Labour and team-work,	"	"	289 50	
Brayden & Johnston	Lumber,	Okanagan	"	87 92	
Carswell, R	do	"	"	20 00	
Cutbill, S N	Blacksmithing,	"	"	10 65	
Enderby Hardware Co.	Spikes,	"	"	2 10	
Fulton Hardware Co, Ld	Nails,	"	"	9 00	
Hassard, F	Piling,	"	"	81 00	
Kay, J	Supplying, lettering, and erecting notice-boards,	"	"	4 50	
Kendall & Co	Rent of lots, 5 months @ $1,	"	"	5 00	
Lumby Saw Mill Co, Ltd	Lumber,	"	"	99 45	
Macleod & Clark	Poles, chain, labour and teaming,	"	"	26 40	
McDiarmid, S J	Drift-bolts, spikes,	"	"	16 52	
O K Lumber Co, Ltd	Lumber,	"	"	501 46	
Okanagan Lake Boat Co	Freight,	"	"	1 40	
Okanagan Saw Mills, Ltd	Poles, lumbering,	"	"	91 07	
Penticton Lumber Co, Ld	Lumber,	"	"	36 39	
Pell, W G	Chain, bridge-bolts, etc.,	"	"	10 80	
Sigalet, H A	Lumber,	"	"	57 44	
Thompson & McCall	Hardware,	"	"	19 60	
Tomkinson, A	Lumber,	"	"	28 70	
White, D J	Piling,	"	"	70 00	
Worth, H	Lumber,	"	"	22 72	
Pay-lists	Labour and team-work,	"	"	1,799 25	
Abrahamson, O W	Planking,	Revelstoke	"	14 10	
Bruhn, R W	Assistant Road Supt., expenses, $73.97; paid freight, $1.35;		Revelstoke District	75 32	
Bourne Bros, Ltd	Hardware,	Revelstoke	District	140 52	
Brayden & Johnston	Lumber,	"	"	51 27	
British Amer Paint Co.	Paint,	"	"	82 90	
Collinge, M M	Lumber,	"	"	114 80	
Columbia Riv Lumber Co	Piling,	"	"	19 36	
Crawford, R Z	Hardware,	"	"	13 20	
Forest Mills of B C, Ltd.	Lumber,	"	"	25 37	
Frolloff, Mrs J	do	"	"	6 00	
Hume & Co, Ltd, C B.	Boots and expressage,	"	"	9 35	
Lang, H	(Paid) Freight,	"	"	21 17	
Lawrence Hdwre Co, Ltd	Hardware,	"	"	57 65	
Lonzo, J	Lumber,	"	"	8 00	
Menhinick, C	do	"	"	140 00	
McMahon, S	Hooks, drift-bolts,	"	"	3 25	
Newnes, W	Coal,	"	"	2 50	
Olsen, C J	Blacksmithing,	"	"	6 00	
Palace Livery Co	Team-hire, blacksmithing, etc.,	"	"	385 00	
Parker, H J	Blue-prints,	"	"	10 00	
Reid & Co, W R	Hardware,	"	"	45 30	
Sawyer, R H	Lumber,	"	"	18 55	
Sutherland, J P	Hauling,	"	"	35 21	
Sturdy Hardware Co	Hardware, fuse, etc.,	"	"	66 90	
Tredget, E	Caps, fuse,	"	"	3 45	
Trout Lake Livery & Transfer Co.	Powder, fuse, caps,	"	"	22 25	
Pay-lists	Labour and team-work,	"	"	13,179 15	
B C Anchor Fence Co, Ld	Iron gates,	Richmond	"	17 50	
Eburne Saw Mills, Ltd	Lumber,	"	"	1,003 64	
Canadian Explosives, Ld	Dynamite, fuse, caps,	"	"	257 25	
Clugston & Barton	Hardware, coal-oil, machine-oil, etc.,	"	"	106 25	
	Carried forward			.....	1442997 97

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		1442997 97
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 184.—Bridges Generally.—Continued.		
Fraser & Carpenter	Hardware, supplying and driving piles, wire cable, etc., Richmond District	201 29	
Graner, J	1 year's rent of ground for Bridge-tender's house, Richmond District	75 00	
Imperial Oil Co, Ltd	Palacine and barrel, " "	14 35	
Judd, H	Cartage, " "	4 20	
Leighton, D	Blacksmithing, $16.50; hauling, $9.20; " "	25 70	
Oldfield, W M	Repairs to auto, " "	50 00	
Patterson, T R	Putting up "Caution" signs and testing bridges, " "	26 00	
Simson, Balkwill & Co, Ld	Wire rope, etc., " "	17 79	
Sun Job Presses	"Caution" notices, " "	4 25	
White, Wm	Couplings, washers, repairs to bridge, etc., " "	29 25	
Pay-lists	Labour and team-work, " "	1,365 65	
Shawnigan Lake Lbr Co.	Lumber, Saanich "	13 00	
Pay-list	Labour, " "	27 00	
Armstrong, J J	Lumber, Similkameen "	13 56	
Bassett, F	Livery-hire, " "	35 00	
Boeing & Brass	Lumber, hauling, and labour *re* bridge repairs, " "	139 23	
Brooks-McKenzie Lbr Co	Lumber, " "	5 85	
Burr, E E	Blacksmithing, coal, etc., " "	71 95	
Campbell, D O	Lumber, " "	1 92	
Cook, F P	Hardware, " "	28 45	
Dumont, M	Lumber, " "	133 08	
Fetterly, V	Repairs to chain, " "	75	
Gibson, S	Hardware, " "	18 35	
G N Railway Co	Freight, " "	27 00	
Heaps & Sons	Lumber, freight, " "	698 98	
Hobbs Lumber Co	Lumber, " "	94 88	
Huff, H H	Blacksmithing, " "	38 59	
Innis, D J	Labour and teaming *re* protecting and clearing bridge, Similkameen District	66 50	
Kaledon Supply Co	Red oxide, linseed-oil, rope, Similkameen District	51 50	
Keeler, G G	Nails, " "	3 00	
Kettle Valley Ry Co	Freight, " "	65 00	
Madden, A	Lumber, " "	37 63	
Madore, J F	Drift-bolts, etc., " "	23 55	
Mills, E	Hardware, " "	31 97	
McCuddy, J P	Nails, lumber, " "	5 50	
Parmley, R	Hauling, " "	3 00	
Penticton Hardware Co	Hardware, " "	42 44	
Penticton Lumber Co	Lumber, " "	563 78	
Princeton Coal & Land Co	Cable, " "	16 05	
Schubert's Supply Stores	Hardware, " "	3 15	
Smith Lumber Co, S C	Lumber, " "	5 08	
S Okanagan Transp Co	Freight, " "	12 00	
Valley Lumber Co	Lumber, " "	347 85	
Pay-lists	Labour and team-work, " "	6,829 59	
Aitken, J	Horse-hire, Skeena "	11 00	
Alberta Lumber Co	Lumber and freight, " "	4,773 39	
Alice Arm Transfer Co	Hauling, " "	40 00	
Allen, F	Unloading, hauling, piling hay, " "	7 50	
Angle, W	Boat-hire, " "	24 00	
Andimaul Saw Mill	Lumber, " "	26 45	
Armstrong, W L	Freight and expressage, " "	10 00	
Beatty, A C	Fares and paid freight, " "	9 10	
Beirnes, G	Horse-hire, " "	15 50	
Bella Coola Lbr Co	Lumber, " "	159 58	
Bethuren, L J	Dynamite, caps, fuse, soap, " "	24 70	
Belway, J	Files, spikes, " "	1 20	
Birchall, K F	Launch-hire, " "	4 00	
Brooks, J	Making and painting notices, " "	18 00	
Broughton, F	Horse-hire and meal, " "	2 50	
Broughton & McNeil	Hardware, powder, caps, etc., " "	71 90	
Brunette Saw Mill Co	Lumber and freight, " "	1,009 51	
Brynildsen & Co, B	Hardware, paint, oil, hay, " "	30 70	
Bulkley Transfer Stables	Livery and team hire, taking apart engine and pile-driver, lumber, Skeena District	283 35	
Burns Lake T & Lbr Co	Hardware, Skeena District	133 77	
Buxton, J	Blacksmithing, " "	97 85	
Canadian Explosives, Ltd	Dynamite, fuse, caps, freight, etc., " "	43 58	
Canadian Pacific Ry Co	Loading lumber, " "	14 85	
Chisholm, A	Hardware, coal, oil, etc., " "	164 95	
Christensen, A C	Hardware, oil, etc., " "	228 50	
Cochrane, D	Rope, spikes, iron, " "	11 80	
Colborne, F	Horse-hire, nails, bolts, " "	29 30	
Coughlan & Sons, J	Ironwork and freight, " "	7,098 98	
Crawford A	Bolts, rods, etc., " "	8 50	
Cunningham & Son, Ld, R	Hardware, lumber, tent, powder, etc., " "	309 07	
Darling & Co, F	Inspection of bridge material, " "	40 69	
Govt Telegraph Service	Telegrams, " "	2 80	
Derrick, A	Packing supplies, " "	50 00	
Fairbairn, W H	Spikes and boat-hire, " "	54 10	
	Carried forward		1442997 97

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	1442997 97
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 184.—Bridges Generally.—Continued.		
Falconer, T W	Hardware, lumber, dynamite, etc., Skeena District	513 65	
Filipson, J	Nails, " "	2 15	
Gayer & Connelly	Hardware, " "	124 23	
Gentner, G	Blacksmithing, " "	4 00	
Georgetown Saw Mill Co	Lumber, " "	35 45	
Gerrard, E	Launch-hire, " "	15 00	
G T P Railway Co	Freight and expressage, " "	406 82	
Grider, A	Cartage, " "	2 00	
Grimsson, V	Lumber, " "	7 50	
Haney, R	Fares, meals, room, etc., " "	11 30	
Heal, F G	Oats, " "	25 06	
Hoops, B N M	Lumber, " "	229 60	
Hoskins, S H	Meals and bed, " "	2 00	
Hudson's Bay Co	Hardware, " "	273 82	
Hunter, J	Blacksmithing, " "	554 91	
Interior Lumber Co	Lumber, " "	894 18	
Johnson, A	Hauling, " "	11 62	
Johnson, F A	Lumber, " "	631 83	
Jones Co, Ltd, B R	do " "	26 97	
Kaien Hardware Co	Hardware, " "	129 43	
Kelly, E	Unloading hay, " "	7 50	
Kettyle, C J	Lumber, " "	210 00	
Kispiox Lumber Co	do " "	111 25	
Laidlaw, M H	do " "	50	
Law & Mosher	Hardware, etc., " "	51 25	
Lazelle & Co, F	Lubricating-oil, " "	25	
Little, G	Lumber, " "	2,938 62	
Mandefield, —	Horse-hire, " "	10 00	
Martin, J	Hardware and towing, " "	52 45	
Michell, A	Horse-feed and hire, " "	11 60	
Moore, D	Hay, " "	255 00	
Moore, T E	Meals, beds, horse-feed, " "	5 50	
Mooseskin Johnnie	Rent of cabin and barn, 1 month, " "	10 00	
Muir, J K	Hire of wagon and hauling, " "	20 60	
Mulvany & Macdonald	Stabling, team, etc., " "	17 50	
MacAuley, J A	Blacksmithing, " "	20 50	
Mackay & Brink	Nails, bolts, " "	1 00	
Maclean, Dr C G G	Professional services, " "	5 00	
McCubbin, T H	Hardware, " "	12 20	
McDonald, J A	Services as Guide, " "	9 00	
McDonell, G	Horse-feed and stabling, " "	2 00	
McInnes, A	Hay, oats, stabling, " "	16 82	
Mackay & Brink	Hardware, " "	4 55	
McKinnon, D F	Lumber, meals, and bed, " "	9 50	
McLean, A	Hauling and loading, " "	33 75	
McMaster, P	Fares, livery and boat-hire, etc., " "	61 45	
McPhee, P	Hay, " "	9 75	
McRostie, T	Fares, rooms, and board, etc., " "	130 40	
Niedhart, J	Horse-hire, " "	15 75	
Northern Telephone Co	Rent of telephone, " "	15 00	
Olsen, A	Horse-hire, " "	72 75	
Palmer, C	Hardware, " "	16 85	
Port Clements Milling & Trading Co	Lumber, " "	346 00	
Prudhomme & Fisher	Oats, " "	20 00	
Ruddy & Mackay	Blacksmithing, freight, cartage, etc., " "	495 35	
Ross, C	Horse-feed and stabling, " "	3 00	
Ross & Howard Iron-works Co, Ltd	Bolts, rods, blocks, etc., " "	1,038 71	
Saloomt Lumber Co	Lumber, " "	1,336 27	
Sampare Bros	Horse-hire, freighting, " "	12 20	
Sargent, Ltd, R S	Hardware, iron, crockery, etc., " "	1,094 03	
Scharffe, R	Hardware, " "	15 05	
Schorn, L	Lamp-glass, spikes, " "	5 90	
Seymour Lake Lumber Co	Lumber, " "	180 63	
Skeena River Co-operative Association, Ltd	Hardware, " "	22 45	
Skinner Bros	Grease, nails, etc., " "	2 75	
Stephenson & Crum	Lumber and plumbing supplies, " "	8 08	
Stork, F	Rope, freight, cartage, " "	87 20	
Swanson, A	Launch-hire, " "	45 00	
Sweet, E	Hauling, " "	26 25	
Thompson Hardware Co	Hardware, " "	148 61	
Thorp & Hoops	Cable-clamps, " "	60	
Tomlinson, T R	Lumber, " "	331 65	
Torduff, A S	Horse-hire, " "	26 00	
Union Steamship Co	Freight, " "	63 65	
Wesley, J	Lumber, " "	14 45	
	Carried forward	.....	1442997 97

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		1442997 97
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Continued.*		
	Vote No. 184.—Bridges Generally.—Continued.		
Westholme Lumber Co..	Lumber, Skeena District	292 19	
Williscroft, W A	Bridge Superintendent, salary, 3 mos. @ $200; expenses, $96.15; Skeena District.	696 15	
Wrinch, Dr	Professional services, Skeena District	5 00	
Pay-lists	Labour and team-work, " "	39,905 46	
Abernethy & Lougheed..	Lumber, Slocan "	448 16	
Anderson, Wm	Wire cable, " "	5 00	
Angrignon, P	Team-work, " "	31 00	
Arrow Lake Shingle Co..	Towing pile-driver, " "	50 00	
Campbell, W G	Expenses as Bridge Foreman, " "	27 13	
Canadian Pacific Ry Co.	Unloading cars, " "	10 00	
Darling & Co, F	Inspecting material for bridge, " "	68 33	
Hoben, T H	Caps, fuse, " "	3 00	
Horrie, R	Piling, " "	114 42	
Lane, T F	Repairs to pile-driver, " "	15 75	
Makinson, G	Freight, lumber, " "	785 66	
McLean, M	Freight, " "	9 50	
McNeish, T	Hardware, " "	25 60	
Nelson Iron Works, Ltd .	Iron-work, etc., " "	253 59	
Nelson Transfer Co, Ltd	Cartage and freight, " "	85	
Pioneer Liv& Feed Stables	Hauling, " "	15 60	
Rice, W	Lumber, " "	306 40	
Ritchie, A	Nails, " "	3 72	
Schram, E L	Powder, caps, fuse, " "	8 75	
Silverton Lbr & Powd'r Co	Lumber, " "	236 41	
Slocan Valley Lbr Co	do " "	1,103 96	
Tier, J	Hauling, " "	4 00	
Vanstone & McLachlan..	Lumber, " "	24 75	
Wagstaffe & Vestrup	Hardware, " "	40 88	
Webb & Gifford	Angle blocks, bolts, rods, freight, " "	1,520 60	
Wiebe, I	Spikes, " "	14 00	
Wilson, T H	Hardware, " "	25 61	
Wood-Vallance Hdwre Co	Hardware and freight, " "	131 73	
Pay-lists	Labour and team-work, " "	6,188 70	
Brookmere Lumber Co..	Lumber and freight, Yale "	54 15	
Burr, J L	Livery-hire, " "	3 00	
Can Western Lbr Co	Lumber, " "	163 73	
Chapman, J A	Nails, " "	3 78	
Cottrell, H V	Hay, nails, fares, " "	71 20	
Cowen, W H	Blacksmithing, " "	24 64	
Creighton, D J	Wire nails, " "	11 05	
Dumond, M	Lumber and hardware, " "	21 20	
Dunlop, J L	Horse-shoes, " "	7 00	
Elliott, F	Lumber, " "	77 28	
Hope Saw Mill Co	do " "	827 91	
Hope Tdg & Supply Co..	Oats, nails, axe, etc., " "	17 85	
Howell, A	Bridge-bolts and expressage, " "	7 15	
Howse Co, A E	Nails, etc., " "	5 73	
Huston, W O	Hay and water, " "	2 55	
Inkman, C	Spikes, " "	5 25	
Inkman, F E	Livery-hire, " "	9 00	
Jackson, A	Powder, wire, fuse, caps, nails, etc., " "	22 50	
Mannion, W	Hay, " "	16 00	
Menzies, Ltd, J A	Lumber and labour, laying bridge, " "	42 29	
Merritt Lumber Yard...	Lumber, " "	112 40	
Merritt Transfer	Livery-hire, oats, hay, freight, etc., " "	129 27	
Nicola Val Pine Lbr Co..	Lumber, " "	63 48	
Rockwell, Theal & Davison	Hay, " "	39 55	
Ryder, A	Hauling and freight, " "	10 55	
Stoddart, R	Lumber, " "	109 84	
Tong Kee	do " "	2 00	
Thynne, J G	do " "	12 00	
Vanc Engineering Works	Bolts, washers, freight, " "	15 45	
Pay-lists	Labour and team-work, " "	3,349 24	
Benney, G M	Fares, meals, Ymir "	9 15	
Bell & Co, R B	Spikes, " "	105 30	
Campbell, J J	Lumber, " "	45 80	
Canadian Explosives, Ltd	Powder, dynamite, freight, " "	87 75	
C P Railway Co	Freight, " "	1 65	
Canyon City Lumber Co.	Lumber, " "	10 20	
Chittick, R E	do " "	101 50	
Creston Mercantile Co ..	Hardware, powder, caps, fuse, etc., " "	190 36	
Crescent Valley Store...	Powder, " "	15 10	
Deschamps, J S	Lumber, " "	1,151 57	
Dominion Express Co...	Expressage, " "	50	
Dom Govt Telegraphs...	Long-distance calls, " "	1 10	
Duncan, W A	Lumber, " "	55 10	
Edgewood Lumber Co...	do " "	67 17	
	Carried forward		1442997 97

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	1442997 97
	XII.—PUBLIC WORKS.—*Continued.*		
	Roads, Streets, Bridges, and Wharves.—*Concluded.*		
	***Vote No. 184.—Bridges Generally.*—Concluded.**		
Galbraith Bros	Hardware, etc., Ymir District	49 61	
G N Railway Co	Freight, " "	46 45	
G N Express Co	Expressage, " "	80	
Hirst, A	Powder, " "	7 00	
Johnston, J P	Fares, " "	12 60	
Lambert Co, Ltd, A G	Lumber and repairs to bridge, " "	105 08	
Nelson Hardware Co	Hardware, cartage, etc., " "	152 07	
Nelson Iron Works, Ltd	Repairs to boiler, labour, and material, " "	21 82	
Nelson Transfer Co, Ltd	Cartage, freight, expressage, " "	7 92	
Plumm & Woods	Plumbing repairs, and material, " "	79 01	
Randall, J R	Freight, etc., " "	66 00	
Ritchie, A	Hardware, " "	1 19	
Salmon River Lmbr Co	Lumber, " "	21 76	
Salmo Trading Co, Ltd	Hardware, " "	14 15	
Thomas, S	Fare, " "	3 00	
Varseveld Bros	Lumber, " "	601 67	
West Transfer Co	Hauling, " "	75	
Wickham, W T	Fuse, caps, " "	3 30	
Wood-Vallance Hdwre Co	Hardware, " "	51 24	
Wynndel Box Factory	Lumber, " "	286 76	
Pay-lists	Labour and team-work, " "	9,787 53	
Tracy, T H	Services as Assistant Engineer 9 months 14 d. @ $210; expenses, $216.10	2,169 10	
Williscroft, W A	Services as Bridge Inspector 2 " 200; " 172.90	572 90	
Elec Blue Print & Map Co	Plumb-bob, cord, levelling-rod for use of bridge designer	3 55	
			346,964 02
	Vote No. 185.—Bridge, Fraser River, Prince George.		
G T P Railway Co	To cost of providing for the Provincial Government the highway portion of the combined highway and railway traffic-bridge across the Fraser River at Fort George, balance, if any due, to be decided by arbitration	.....	150,000 00
			1939961 99
	Subsidies and Maintenance, Steamboats, Ferries, and Bridges.		
	Vote No. 186.—Barnston Island.		
Anderson & Lusby	1 set batteries	2 50	
Brunette Saw Mills Co	Lumber	730 26	
Burrows & Son	Coal-oil and lantern	2 70	
Can Fairbanks-Morse Co	Repairs and material for the Pitt Ferry scow	147 01	
Cudmore, Fred	Boat-hire	5 00	
Flumerfelt, Chas	Cedar piling, etc	420 36	
Tilley Bros, Ltd	Coal	23 00	
Hudson, H P	Galvanized iron, painting, and lettering	5 50	
Imperial Oil Co	Gasolene, etc	89 58	
Inglis, T S	Team and man hire	11 00	
Monarch Towing & T Co	Hauling pile-driver	30 00	
Morrison & Matheson	Blacksmithing	36 24	
McLean, B B	Lumber	17 11	
Nesbitt, Geo	Wages as Ferryman, hay and oats	344 30	
Parr, H V	Hardware, etc	14 55	
Royal City Auto Shop	Repairs	2 20	
Small & Bucklin Lbr Co	Lumber and freight	50 21	
Stiles & Towell	Towing ferry and pile-driver	40 00	
Trapp & Co, Ltd, T J	Hardware, rubber belt, tent-fly, etc	179 74	
Trigg, Geo	Boat-hire, etc	11 00	
Warren, S W	Electric starter, etc	15 00	
Westminster Iron Works	Repairing shaft and bearings	40 15	
Pay-list	Labour and team-work	1,223 00	
			3,440 41
	Vote No. 187.—Bulkley River, South Hazelton.		
Allen, Frank	Hauling lumber	30 00	
Cunningham & Son, Ld, R	Hardware	8 70	
Hudson's Bay Co	Rope	10 00	
Kispiox Lumber Co	Lumber	149 64	
McQuade & Son, Ld, Peter	Wire rope, cartage, and freight	37 85	
Ruddy & MacKay	Blacksmithing	85	
Sargeant, Ltd, R S	Coal-tar, pitch, hardware	27 30	
Stephenson & Crum	Lumber	20 16	
Hagglund, Peter	Services as Ferryman 6 months 23 days @ $90	609 00	
Pay-list	Labour	362 77	
Haggblad, N	Labour, etc	11 25	
Beirnes, Geo M	Horse and man hire	4 87	
			1,272 39
	Carried forward	.....	4,712 80

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward		4,712 80
	XII.—PUBLIC WORKS.—*Continued.*		
	Subsidies and Maintenance, Steamboats, Ferries, and Bridges.—*Continued.*		
	Vote No. 188.—Canoe River.		
Bourne Bros, Ltd	Hardware, etc	29 55	
Lawrence Hdwre Co, Ltd	Coal, stove, and hardware	11 65	
McMahon, Sam	Hardware	4 50	
Sutherland, J P	Hauling supplies, etc	5 00	
Pay-list	Labour, etc	733 00	
			783 70
	Vote No. 189.—Columbia River, Goldstream.		
Maloney, Thomas	Sevices as Ferryman 4 months @ $25		100 00
	Vote No. 191.—Francois Lake.		
Broughton & McNeil	Logging-chain and barrel	3 20	
Brownlee, Geo C	Operating ferry	754 84	
Burns Lake Tdg & Lbr Co	Lumber, etc	75 00	
Buxton, James	Blacksmithing	9 75	
Chisholm, A	White lead, mixed paint, oil, gasolene, etc	220 09	
Forde, L O	Freighting goods	5 70	
Geo Little Lumber Yard	Lumber	78 60	
G T P Railway Co	Freight	26 13	
Harris & Long	Stabling and oats	77 25	
Hoops, B N M	Lumber	24 21	
Howe, H	Gasolene	12 60	
Hudson's Bay Co	Motor-oil, etc	41 25	
Imperial Oil Co	Gasolene, freight, etc	325 17	
Jeffrey, R R	Caps, fuse, blacksmithing, etc	176 45	
Kaien Hardware Co	Hardware, etc	49 19	
Lemon, Gonnason Co, Ld	Lumber, freight, etc	516 60	
Macdonell, G	Hay and stabling	6 50	
Mulvany & Macdonald	Stabling and provisions	59 50	
McInnes, Mrs A	Stabling, etc	7 90	
McLaughlin, K K	Pitch-pot	1 50	
O'Neill, W J	Gasolene-launch, operating ferry-boat	1,667 32	
Parkin & Ward	Spark-plugs, pipe-wrench, dry cells, etc	83 05	
Prosser & Reid	Paint, windows, hardware, etc	88 95	
Sargent, R S	Nails, rope, etc	46 50	
Schorn, Louis	Stove, etc	7 45	
Thompson Hdwre Co, Ld	Anchor, white lead, oil, turps, etc	136 83	
Wood, Vallance & Leggat	Vaporizing-plug, etc	9 03	
Pay-list	Labour and team-work	29 30	
Long, S N	Team-hire	27 50	
Keefe, J	Man and team, hauling wood, gasolene, etc	26 00	
Blayney, A	Teaming	96 25	
Pay-list	Labour and team-work	22 50	
Loveing, A	Labour	11 25	
Pinkerton, F	do	20 62	
Keefe, J	Man and team-hire	21 87	
Pay-list	Labour and team-work	1,735 18	
			6,501 08
	Vote No. 192.—Fraser River at Alexandria.		
Armstrong, A C	Ferryman 12 months' wages @ $75	900 00	
Howison Estate	Cable-clamps	1 50	
Hudson's Bay Co	Rope and machine-oil	41 95	
Inland Express Co	Expressage	2 10	
Johnston, C	Freight	5 00	
Johnston Bros	Hauling lumber, wire cable, etc	20 00	
Lazzerin & Bros, J	Cable-holders	3 00	
Moffat Bros	Tallow, hauling lumber, etc	3 50	
Northern Lumber & Mercantile Co, Ltd	Oakum and lime	19 70	
Reid Estate, The James	Lumber	5 52	
Windt, A T	Lumber, nails, etc	4 55	
Pay-list	Labour and team-work	53 75	
Windt, G	Labour	3 50	
McCoombs, T S	do	5 25	
Williams, J	Repairing ferry	32 00	
Oderkirk, A	do	28 00	
			1,129 32
	Vote No. 193.—Fraser River at Macalister.		
Lenihan, P	Ferryman 7 months @ $40; purchase of boat, $15		295 00
	Carried forward		13,521 90

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	13,521 90
	XII.—PUBLIC WORKS.—*Continued.*		
	Subsidies and Maintenance, Steamboats, Ferries, and Bridges.—*Continued.*		
	Vote No. 194.—Fraser River at Agassiz.		
McGrath, W	Ferryman ..... 1 year @ $3,500	.....	3,500 00
	Vote No. 195.—Fraser River at Big Bar.		
Fraser, Robert	Gum boots, anvil, rope, etc	77 85	
Gottfriedsen, F	Boat-hook, etc	2 50	
McNeil, George	Ferryman ..... 10 months @ $75	750 00	
Wood, Vallance & Leggat, Ltd	2 solid sheaves	6 50	
			836 85
	Vote No. 196.—Fraser River at Chilliwack-Harrison.		
Henley, Thos J	Ferryman ..... 1 year @ $800	.....	800 00
	Vote No. 197.—Fraser River at Fort George.		
McArthur, Wm	Oakum, etc	14 30	
N Lbr & Mercantile Co	Caps and nails	50	
Thorne, Wm	Ferryman ..... 7 months @ $75	525 00	
			539 80
	Vote No. 198.—Fraser River at High Bar.		
McDonald, Malcolm	Ferryman ..... 1 year @ $600	.....	600 00
	Vote No. 199.—Fraser River at Lytton (above).		
Chutatlem, T	Ferryman ..... 9 months @ $60	540 00	
Inland Transportation Co	Team and man	6 50	
Pay-list	Labour and team-work	25 00	
			571 50
	Vote No. 200.—Fraser River at Mission.		
Abbott & Abbott	Window-pane	75	
Bidnall, A	Cartage	10 50	
Bond, E J	Lamps, etc	1 75	
Cade, George E	Cartage	5 50	
Can Gen Electric Co, Ld	Storage-battery, etc	32 10	
Cutler, T E	Coal	8 00	
Dickinson & Buckerfield	Salt	1 00	
Fraser, N C	Repairs	13 50	
Imperial Oil Co, Ltd	Distillate, gasolene, freight, etc	1,262 86	
Mainland Navigation Co	Freight	35	
Mission Hardware Co	Hose, paint, hardware, etc	92 50	
Monarch Towing & T Co	Hire of tug	40 00	
Moulton, C	Lamps	5 90	
MacKenzie, Capt A A	Freight	65	
Peacock, James C	Boom chains and sticks	15 00	
River Lumber Yard	Lumber	25 30	
Simson, Balkwill & Co, Ld	Wire rope	8 40	
Tupper, J A	Coal	8 00	
Vancouver Shipyard, Ltd	Parts for Atlas engine	44 65	
Westm'r Marine Ry Co	Lumber	3 70	
Pay-list	Wages of crew of ferry-boat	3,768 31	
Pay-list	Labour for repairs	193 15	
			5,541 87
	Vote No. 201.—Fraser River at Quesnel.		
Cowan Supply Co	Rope, white lead, boiled oil, etc	31 65	
Fraser & Co, Ltd, J A	Hardware	2 75	
Hill, J F	Ferryman ..... 6 months @ $75	450 00	
Howison Estate	Hardware	5 45	
Hudson's Bay Co	Rope, etc	6 75	
Inland Express Co	Express	5 00	
Johnston, C V	Freight	4 50	
Johnston Bros	Wood, man and team hire, etc	24 00	
Laird, Wm	Ferryman	75 00	
Lazzerin, J	Hardware, etc	16 10	
Lazzerin & Bros, J	do	35 35	
Locke, A	Ferryman ..... 5 months @ $75	375 00	
	Carried forward	.....	25,911 92

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		25,911 92
	XII.—PUBLIC WORKS.—*Continued.*		
	Subsidies and Maintenance, Steamboats, Ferries, and Bridges.—*Continued.*		
	Vote No. 201.—Fraser River at Quesnel.—Concluded.		
Marion, T	Oil, rope, nails	11 50	
N Lbr & Mercantile Co, Ld	Oakum and lime	19 70	
Norwood Bros	Labour on ferry	15 75	
Reid Estate, James	Lumber	38 16	
Pay-list	Labour and team-work	353 50	
			1,470 16
	Vote No. 202.—Fraser River at Rauch Valley.		
Austin, A	Supplies	140 25	
Bonney, A D	Salary as Ferryman, 32 days @ $2.50; 3 months @ $75; freight, $4.80	309 80	
Bronger, John	Preparing bill of timber	5 00	
Finlaison, C S	Grindstone and hauling	7 00	
Gaffney, T E	Lumber	235 05	
G T P Railway Co	Freight	88 04	
Johnson, W A	(Paid) Railway fares and telegram	8 70	
Lee, Ed	Tent and saw and handles	31 00	
Moynihan, C G	Rowboat	8 00	
McDonell, A	Tent, rope, etc	34 25	
Northern Lumber & Mercantile Co, Ltd	Hardware, oil, etc	469 63	
Pay-lists	Labour and team-work	1,273 50	
			2,610 22
	Vote No. 203.—Fraser River at Ruby Creek.		
Forrest, John H	Services as ferryman 4 months @ $50		200 00
	Vote No. 205.—Fraser River at Soda Creek.		
Cariboo Observer	Advertising "Tender for Ferry, Soda Creek"	4 56	
Cariboo Trading Co, Ltd	Hardware	29 35	
Cowan Supply Co	Pitch	6 50	
Fraser & Co, Ltd, John A	2 pulleys	6 50	
Hudson's Bay Co	Pair of oars	3 75	
Inland Express Co, Ltd	Expressage and fares	20 45	
Joyce, Henry	Plans and specifications	30 00	
Lazzerin & Bros, J	Cable-clamps and repairs to pulleys	9 50	
Lyne, Wm	Pontoon, lumber, labour, etc	792 60	
Robins, W J	Beaching scow, building capstan, hauling ferry	63 50	
Stowell, E B	Services as Assistant Ferryman 25 days @ $ 3.25	81 25	
Tresierra, A E	do Ferryman 12 months @ $75; expenses, 39.80	939 80	
Pay-lists	Labour	133 25	
			2,121 01
	Vote No. 206.—Fraser River at 20-Mile Post, above Lillooet.		
Montgomery, John	Services as Ferryman 12 months		500 00
	Vote No. 207.—Fraser River at Ladner-Woodward.		
Alexander, Mrs R	Freight on life-boat	3 00	
Baker, G T	Blacksmithing	23 15	
City Market	Water supplied to S.S. "Wm. H. Ladner"	7 50	
Clement & Lambert	Pipe, etc	13 64	
Cunningham Hdwre Co	Hardware, etc	171 81	
Foster, T W	Rent of wharf 12 months @ $10	120 00	
Gilley Bros, Ltd	Coal, firebrick, and clay	4,003 81	
Herrling, J A	(Paid) Labour, phone, stamps, etc	43 75	
Lanning, Fawcett & Wilson, Ltd	Engine-room and deck supplies	286 30	
McAllisters, Ltd	Boat-awnings, etc	21 75	
McNeely, Mrs Annie	1 year's rent of landing	50 00	
Robinson, W H	(Paid) Labour and stamps	4 90	
Royal City Nav Co, Ltd	Rent of S.S. "Paystreak" 3 days @ $40; 75 days @ $50	3,870 00	
Schaake Manufac Co	Building water-wheel and machine-work	2,431 36	
Shaw & Patterson Iron Works	Boiler-maker work and transportation	7 45	
Shiles, B W	Harbour dues	3 00	
Taylor Electric Co, Ltd	Lamps, fuse, and batteries	7 85	
Trapp & Co, Ltd, T J	Boiled oil, white lead, etc	41 70	
Turner, Wm	Life-boat and fittings	68 00	
	Carried forward		32,913 31

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	32,813 31
	XII.—PUBLIC WORKS.—*Continued.*		
	Subsidies and Maintenance, Steamboats, Ferries, and Bridges.—*Continued.*		
	***Vote No. 207.—Fraser River at Ladner-Woodward.*—Concluded.**		
Vulcan Iron Works, Ltd.	Installing smoke-stack	230 95	
Webb & Gifford	Machine-work	384 67	
Westminster Mar Ry Co.	Lumber, coal-tar, etc	271 83	
Pay-lists	Captain and crew of ferry	5,241 15	
			17,307 57
	Vote No. 208.—East Summerland.		
Okanagan Lake Boat Co.	Ferry service, 12 months	.....	1,000 00
	Vote No. 209.—Hall's Landing.		
Hall, David T	Ferry service twice weekly between Hall's Landing and Arrowhead, May 1st to November 30th	.....	475 00
	Vote No. 210.—Kelowna-Westbank.		
Campbell, James I	Ferry service, 12 months	.....	1,000 00
	Vote No. 211.—Kootenay River, Lewis.		
Lewis, Ike	Services as Ferryman 23 days @ $3; making crank, $1	70 00	
Speers, S A	Oars, oar-locks, and cable-clamps	6 25	
			76 25
	Vote No. 212.—Kootenay River, Reclamation Farm.		
Byers, Giegerich Green Co	Wire rope	77 50	
Creston Auto & Supply Co	Oil	1 25	
Dominion Express Co	Express charges	85	
Fulmer, J H	Making blocks, etc.	10 50	
Hurry, F K	Services as Ferryman 12 months @ $75	900 00	
McCreath, H S	Freight and delivery	4 46	
Speirs, S A	Hardware and grease	9 25	
West Transfer Co	Hauling cable and freight	4 42	
Wood-Vallance Hdwre Co	Wire rope and freight	53 53	
Wright, W	Hauling	3 00	
Pay-lists	Labour and team-work	149 75	
			1,214 51
	Vote No. 213.—Nechako River, Fraser Lake.		
Clarke, Fred	Services as Ferryman 7 months 14 days @ $75; rowboat	585 00	
Fort Fraser Mercantile Co	Rope, paint, etc.	67 55	
N Lbr & Mercantile Co, Ld	Rubberine and pitch	13 75	
Pay-lists	Labour and team-work	167 50	
			833 80
	Vote No. 214.—Nechako River, Fort George.		
Foster, D A	Grease	6 00	
Munro, Ltd, James	Hardware and oil	2 23	
N Lbr & Mercantile Co, Ld	Tallow	15 60	
Stretch, Thomas	Services as Ferryman 7 mos. @ $75; 14 days @ $2.50; oiling pulleys, etc., $16	576 00	
Pay-lists	Labour	120 50	
			720 33
	Vote No. 215.—Nechako River, near Mouth of Chilako River.		
Alexander, R	Hay	5 00	
Bird, W	Services as Ferryman 1 month @ $75; 29 days @ $2.50; team-work, $10	157 50	
Brawn, H	Hauling	28 00	
Johnson, W A	(Paid) Railway fare, lodging, and board	14 60	
Leith, J	Tent, stove, and pipes	27 50	
Munro, Ltd, James	Nails	1 40	
N Lbr & Mercantile Co, Ld	Hardware, lumber, oil, etc.	1,132 63	
Pay-lists	Labour and team-work	1,611 50	
			2,978 13
	Carried forward	.....	58,418 90

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	58,418 90
	XII.—PUBLIC WORKS.—*Continued.*		
	Subsidies and Maintenance, Steamboats, Ferries, and Bridges.—*Continued.*		
	Vote No. 217.—Nechako River, Vanderhoof.		
Geo Little Lumber Yard	Lumber	5 80	
Miller, W	Pump for ferry	5 00	
Nechako Stables	Team and man	23 25	
Stuart, D	Ferryman..... 7 months 11 days @ $75	552 50	
Spencer, H	Labour	4 00	
Mathews, R T	do	13 00	
McMillan, J H	do and team-hire	3 00	
Ratbeck, Axel	do	5 25	
Turcotte, E	Man and team	3 00	
			614 80
	Vote No. 218.—North Thompson River, Bester, Mosquito Flat.		
Canadian Northern Ry	Freight	7 68	
Dalgleish, N S	Hardware	6 53	
Latremouille, J H	Lumber, etc	14 74	
Prior & Co, Ltd, E G	Hardware and rope	8 53	
Ruddock, Isaac	Ferryman.....12 months @ $41.66	499 92	
Tedder Lumber Co, J E	Lumber	70	
Wilcox-Hall Co, Ltd	Oars, rope, oakum, etc	24 00	
			562 10
	Vote No. 219.—North Thompson River, Chinook Cove.		
Dalgleish, N S	Snatch-block, rope, freight	44 86	
Elder, W W	Ferryman.....12 months @ $41.66	499 92	
Elder, W W	Nails	2 05	
Ellis & Co, W J	Boring sheave-wheels, etc	1 75	
Hagen, O S	Lumber	7 20	
Wilcox-Hall Co, Ltd	Rope, oars, etc	30 36	
			586 14
	Vote No. 220.—North Thompson River, Jones.		
Canadian Northern Ry	Freight	13 73	
Jones, W H	Ferryman..... 6 months @ $41.66	249 96	
Prior & Co, Ltd, E G	Hardware, rope, etc	29 44	
Ross, Charles	Ferryman..... 2¼ months @ $41.66 ; 40 9/10 days @ $3	226 85	
Tedder Lumber Co, J E	Lumber	71 87	
Wilcox-Hall Co, Ltd	Rope, hardware, etc	26 70	
Pay-list	Labour	204 62	
			823 17
	Vote No. 221.—North Thompson River, Little Fort.		
Latremouille, J H	Men and team	7 20	
Prior & Co, Ltd, E G	Rope	13 50	
Spratt, Jos	Ferryman.....12 months @ $75	900 00	
			920 70
	Vote No. 222.—North Thompson River, Upper Crossing.		
Brookfield, Theodore	Wheel	6 00	
Ellis & Co, W J	2 sheaves, etc	2 00	
Fennell, Geo	Lumber and freight	4 56	
Marshall, J B	Ferryman.....12 months @ $83.33	999 96	
Prior & Co, Ltd, E G	Cable, etc	3 05	
Wilcox-Hall Co, Ltd	Oakum, rope, etc	12 00	
			1,027 57
	Vote No. 223.—Shuswap Lake, Sorrento, Scotch Creek.		
Adams River Lumber Co	Rubber roofing, machine-bolts, etc	6 60	
Dominion Express Co	Express and duty on muffler	4 68	
Govt Telegraph Service	Telephone, 1 year	60 00	
Hargreaves, W	Welding base for engine	5 00	
Miller, Chas E	Marine muffler	4 80	
Morris, L T	Ferryman.....12 months @ $90	1,080 00	
Smith & Son, W T	Crank-case, etc	36 70	
Syson, F	Gasolene, Mobiloil, etc	523 48	
			1,721 26
	Carried forward	.....	64,674 64

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	64,674 64
	XII.—PUBLIC WORKS.—*Continued.*		
	Subsidies and Maintenance, Steamboats, Ferries, and Bridges.—*Continued.*		
	Vote No. 224.—South Thompson River, Ducks.		
Dalgleish, N S	Tar, oar-locks, etc.	3 00	
Marlatt & MacKenzie	1 pair oars, etc.	4 30	
Smith, Scott	Ferryman, 12 months @ $41.66	499 92	
Tedder Lumber Co, J E	Lumber, etc.	20 65	
Wilcox-Hall Co, Ltd	Hardware	2 30	
Pay-list	Labour and team-work	67 80	
			597 97
	Vote No. 225.—South Thompson River, Pritchard.		
Christian, J W	Ferryman, 11 months @ $41.66	458 26	
Dalgleish, N S	Oars, rope, etc.	67 60	
Ellis & Co, W J	Sheave-wheel bored	1 55	
Prior & Co, Ltd, E G	Rope	7 80	
Parker, H C	Ferryman, 1 month	41 66	
Tedder Lumber Co, J E	Lumber	2 90	
Wilcox-Hall Co, Ltd	Pitch, oars, hardware	8 60	
			588 37
	Vote No. 226.—Stewart Lake.		
Hudson's Bay Co, The	Gum, hardware, labour, etc.	35 75	
Prince, Joseph	Ferryman, 4 months @ $75; 1 month @ $65; 21 days @ $2.50	417 50	
Pay-list	Labour	43 00	
			496 25
	Vote No. 227.—Stewart River, Tsinkit-Stuart Lake Road.		
Alexander, J	Ferryman	197 50	
George Little Lbr Yards	Lumber	53 05	
Grand Trunk Pacific Ry	Freight	12 40	
Hamilton, A G	Powder, wire rope, motor-boat hire, hardware, etc.	260 09	
Hudson's Bay Co.	Hardware	8 90	
Johnston, J M	Linseed-oil, iron, hardware	130 15	
McCorkell, Bros	Tents, nails, etc.	44 75	
Nechako Stables	Freight and express	252 50	
N Lbr & Mercantile Co	Wire cable, lumber, etc.	303 90	
Pay-list	Labour and team-work	1,725 00	
			2,988 24
	Vote No. 228.—Skeena River, Breckenridge.		
Grand Trunk Pacific Ry	Freight	3 06	
Hunter, James	Auger	2 00	
Kaien Hardware Co	Rope, ferry-sheaves, etc.	44 94	
Lazelle & Co, F	Oars and row-locks	3 50	
Niedhart, John	Ferryman, 9 months @ $60	540 00	
Niedhart, John	Hire of horse	3 50	
Pay-list	Labour	56 00	
			653 00
	Vote No. 229.—Skeena River, Copper City.		
Bethuren, J L	Oars, hardware, etc.	7 45	
Hunter, James	Hardware, etc.	22 06	
Kaien Hardware Co	Ferry-sheaves, etc.	41 74	
Skinner, P R	Ferryman, 6½ months @ $80	520 00	
Skinner Bros	Hardware, etc.	4 25	
Thompson Hardware Co	Cable, rope, etc.	26 21	
Pay-list	Labour	103 00	
			724 71
	Vote No. 230.—Skeena River, Hazelton.		
Danes, Philip	Ferryman, 2 months 12 days @ $25	60 01	
Pay-list	Labour	9 37	
Gidd, A	Ferryman, 4 months 20 days @ $25	116 65	
Ruddy & MacKay	Bolts	1 50	
Sargent, Ltd, R S	Hardware	2 88	
			190 41
	Carried forward	.....	70,913 59

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		70,913 59
	XII.—PUBLIC WORKS.—*Continued.*		
	Subsidies and Maintenance, Steamboats, Ferries, and Bridges.—*Continued.*		
	Vote No. 231.—Skeena River, Kitwanga.		
Burns, A	Ferryman ..... 6½ months @ $80	520 00	
Georgetown Saw Mill Co	Lumber	13 29	
Grand Trunk Pacific Ry	Freight	1 82	
Kaien Hardware Co	Paint, sheaves, etc.	47 66	
Thompson, John	Rent of stumping-machine	5 00	
Thompson Hdwre Co, Ld	Crockery, hardware, rope, etc	78 41	
Pay-list	Labour	69 79	
			735 97
	Vote No. 232.—Skeena River, Meanskinisht-Cedarville.		
Gow, W	Freight	35	
Graham, J W	Wages and horse-hire	90 75	
Hunter, James	Steering-wheel, hardware, freight, etc	237 69	
Kaien Hardware Co	Wire rope, hardware, freight, etc	799 90	
Little, George	Lumber	173 44	
McMaster, P	Room and board	50 15	
Pony Express Co	Cartage	1 25	
Thompson Hardware Co	Hardware and freight	38 38	
Thompson, John	Ferryman ..... 4 months 9 days @ $80	341 33	
Tite, George D	2 tents and express	36 90	
Widmayer, F A	Freight	77	
Wrinch, Dr H C	Medical attendance	12 00	
Pay-list	Labour and team-work	1,232 75	
			3,015 66
	Vote No. 233.—Skeena River, Pacific.		
Bethune, L	Hauling stumper	3 50	
Canadian Express Co	Express	2 00	
Grand Trunk Pacific	Freight, etc	91 88	
Imperial Oil Co, Ltd	Gasolene, etc	65 77	
Kaien Hardware Co	Ferry-sheaves and hangers	88 00	
Kyle, W J	Ferryman ..... 1 month @ $80; 7 days @ $3.50	104 50	
Lewis, F	Ferryman ..... 4 " 4	16 00	
Little, Geo	Hardware, lumber, etc.	309 33	
Morrison, D H	Fares, meals, and lodgings	25 20	
Mulvany & Macdonald	Messenger (2 days)	7 50	
McCubbin, Thos H	Hardware, etc., and rent of house	135 85	
O'Neill, W J	Marine engine, shafting, steering-wheel, pipe, etc	1,837 60	
Pacific Cartage, Ltd	Cartage, coal, etc	10 70	
Pr Rupert Boat House	Freight on boat	10 30	
Rupert Marine & Supply Co, Ltd	Hardware	19 48	
Strickland, E E	Ferryman ..... 2 months and 25 days @ $80	224 50	
Swanson, A	Rowboat	45 00	
Thompson Hardware Co	Asbestos rings	21 74	
Tite, George D	Tents, freight, etc	56 60	
Williscroft, W A	Bridge Superintendent ..... 2 months @ $200; expenses, $128.81	528 81	
Pay-list	Labour	701 75	
			4,306 01
	Vote No. 234.—Skeena River, Terrace.		
Hickey, J L	Roller for ferry and cartage	7 25	
Hunter, James	Blacksmithing	11 00	
Kaien Hardware Co	Hardware	161 87	
Lazelle Co, F	do	5 40	
Little, George	Lumber and team-hire	83 65	
Munroe, D D	Teaming	5 25	
McDonald, P	Ferryman ..... 9 months @ $90; 77 days @ $3.50	1,079 49	
Pay-list	Labour and team-work	561 75	
			1,915 66
	Vote No. 235.—Skeena River, Usk.		
Bethuren, J L	Nails	6 50	
Kaien Hardware Co	Ferry-sheaves and freight	41 25	
Smith, John	Ferryman ..... 8 months @ $80	640 00	
Usk Lumber Co, Ltd	Lumber, cable, etc	38 50	
Pay-list	Labour and team-work	357 50	
			1,083 75
	Carried forward		81,970 64

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	81,970 64
	XII.—PUBLIC WORKS.—*Continued.*		
	Subsidies and Maintenance, Steamboats, Ferries, and Bridges.—*Concluded.*		
	Vote No. 236.—West Arm, Kootenay Lake, at Nelson.		
B C Telephone Co, Ltd..	Telephone	18 50	
Can General Electric Co.	Mazda lamps	2 00	
Canadian Oil Co, Ltd....	Gasolene	30 84	
C P Railway Co.....	Freight	2 62	
City Drug & Stat Co....	Wood-alcohol	3 80	
Clerihew, George	Services as Ferryman. 12 months @ $125	1,500 00	
Con Mining & Smelt Co.	Wire rope	152 00	
Cunningham, T.....	Splicing cable	15 00	
Deschamps, J S.....	Lumber	8 70	
Dominion Express Co...	Express and duty	57 70	
Edgewood Lmbr Co, Ltd	Lumber	21 60	
Imperial Oil Co, Ltd....	Gasolene, etc	857 79	
Maltby, Charles.....	Dynamo-brushes	80	
Mason, Edgar.....	Horse and rig hire, lye, soap, etc	6 60	
Masters, H A.....	Repairs to engine	12 25	
McDonald Cartage & Fuel Co	Coal	8 50	
Nelson Daily News.....	Notice in paper	8 45	
Nelson Hardware Co. ..	Wire cable, belting, hardware, etc	287 62	
Nelson Iron Works, Ltd.	Pump for ferry, repairs, and material	203 25	
Nelson Transfer Co.....	Cartage	3 00	
News Publishing Co, Ltd	Notice *re* ferry	3 95	
Powerlight Co.....	Mantles	2 63	
Van Machinery Depot, Ld	Sheaves, spider, etc	113 70	
Waters & Co, T H.....	Lumber	50	
West, W W.....	Hire of tug	24 00	
West Transfer Co.....	Teaming	9 50	
Witte Iron Works Co ...	Cylinder, piston, piston-rings, etc	49 75	
Wood-Vallance Hdwre Co	Wire rope, air-tanks, white waste, etc	337 30	
Pay-list.....	Labour and team-work	558 75	
			4,301 10
	Vote No. 237.—Canoe Pass.		
Berney, Jas.....	Salary as Bridge-tender. 12 months @ $60	.....	720 00
	Vote No. 238.—Eburne.		
Thomas, Edward.....	Salary as Bridge-tender. 12 months @ $70	.....	840 00
	Vote No. 239.—Kamloops.		
Clapperton, G	Salary as Bridge-tender. 12 months @ $30	360 00	
Ratchford, J.....	do .12 " 15	180 00	
			540 00
	Vote No. 240.—Pitt River.		
Scott, J R.....	Salary as Nightwatchman. 5 months @ $60	300 00	
Scott, J R.....	do Bridge-tender. 7 " 80	560 00	
Warren, S W	do " . 5 " 80	400 00	
McRae, A.....	do Nightwatchman. 7 " 60	420 00	
			1,680 00
	Vote No. 241.—North-east Arm, Arrow Lake.		
Fitzsimmons, Capt Jas..	Operating steamer	.....	2,400 00
	Vote No. 242.—Dog Lake, Similkameen.		
S Okanagan Transp Co..	12 months' allowance on Dog Lake steamboat	.....	1,250 00
	Vote No. 243.—Shuswap Lake (Conditional).		
Arrow Lakes Lbr Co, Ld	Service on Shuswap Lake	.....	3,961 54
			97,663 28

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	XII.—PUBLIC WORKS.—*Continued.*			
	Miscellaneous.			
	Vote No. 244.—Boiler Inspection (Maintenance, Wages, Repairs, etc., Launch "Adanac").			
Annandale Supply Co...	Provisions for launch		60 95	
Battery House	Repairs to battery, supplying and fitting new separators		6 90	
Belyea & Co, Ltd	Expressage		1 25	
Bull, H A	Provisions		26 35	
Chappell Bros	Wharfage, coal-oil, etc		59 02	
Gilley Bros	Coal, water		1 00	
Gordon, E E	Provisions		1 55	
Gonsalves & Dames	do		23 90	
Hudson's Bay Stores	Rubber boots, slicker, etc		11 75	
Imperial Oil Co, Ltd	Royalite and mobiloil		228 63	
London Grocery Co, Ltd	Provisions		25 52	
Madigan, G O	Steam-hose		1 40	
Miller, C W	Services as Engineer, "S.S. Adanac".. 9 months 10 days @ 100; expenses, $12.50		944 75	
McDonald, P	Provisions		11 06	
Powell River Co, Ltd	do		52 80	
Royal City Laundry	Laundry		4 49	
Sechelt Seaside Resort Co	Provisions		5 25	
Trapp & Co, Ltd, T J	Hardware, varnish, battery, etc		39 55	
Vancouver Shipyard, Ltd	Brass ventilator, bolts, labour		4 80	
Webb & Gifford	Springs and repairs		14 40	
Westm'r Marine Ry Co	Hauling, carpentering, painting, etc		75 96	
Wilson, J H	Allowance while on military service 12 months @ $30		360 00	
				1,961 28
	Vote No. 245.—Extra Janitors and Janitors' Supplies.			
Alberni Trading Stores	Matches, soap, Old Dutch, etc.,	Alberni	6 70	
Paine, E R	Oil, etc.,	"	6 10	
Thomson's General Store	Soap, polish, etc.,	"	7 50	
White, John	Services as Janitor, 12 months @ $21,	Ashcroft	252 00	
Fraser, J Allan	do sweeping, cleaning, etc., 126 hours 50c.,	Atlin	63 00	
Bidding, Geo	do " " 388 " 50c.,	"	194 00	
Kershaw, J B	Oil, nails, etc.,	"	1 60	
Litle, F E	Services as Night Janitor, 129 nights @ $2,	"	258 00	
McDonald, M J	Brooms, soap, etc.,	"	22 40	
Smith, Sydney	Services as Night Janitor, 7 months @ $10,	"	70 00	
Stokes, James	do cleaning windows, 13 hours 50c.,	"	6 50	
Grain, C W	(Paid) Scrubbing floors,	Barkerville	2 00	
Denmark & Burton	Brooms, oil, etc.,	Chilliwack	1 85	
Clinton Trading Co	1 bottle O-Cedar oil,	Clinton	25	
Crowl, R S	Services as Janitor, 2 mos. 6 d. @ $15; 1 month @ $14; extra labour, $2;	Clinton	49 00	
Ferguson, R	do cleaning Court-room,	Clinton	2 00	
Fraser, Robert	Oil, soap, etc.,	"	18 20	
Hadley, W H	Services, cleaning Court-room and grounds, 10 days @ $2.50; janitor-work, $36.65;	Clinton	61 65	
Indian, Bones, Jr	Services, cutting lawn, etc.,	"	1 50	
Indian, Cecile	do scrubbing Court-room,	"	2 00	
Indian, William	do as Janitor, 12½ days @ $2,	"	25 00	
Jones, Maggie	do " 4½ months 5,	"	22 50	
Rush, J H	do " 1 month 7 d. 15; extra labour, 33½ hours @ 25c.;	Clinton	27 15	
Searle, John	do cleaning Court-room, 8 hours @ 25c.,	Clinton	2 00	
Woods, W	do cutting lawn, etc.,	"	3 00	
Cranbrook Drug & Book Co, Ltd	Toilet-paper and whisks,	Cranbrook	7 20	
Manning, Ltd, Ira R	Soap, Gold Dust, etc.,	"	23 25	
Manning, J	Gold Dust, soap, etc.,	"	7 80	
McBride, J D	Hose, dustbane, etc.,	"	49 20	
Offin, E B	Washing towels, 6 months @ $1,	"	6 00	
Leiser & Co, Simon	Bucket, mop, etc.,	Cumberland	2 20	
Tarbell, C H	1 axe,	"	1 25	
Annie (Indian woman)	Services, washing office and Court-room floors, 4 days @ $1.50,	Duncan	6 00	
Henderson, Mrs W L	do " " 8 " 1.50 "	"	12 00	
McDonald, Mrs J A	do " "	Duncan	1 50	
Hozier, E	do cleaning offices, 12 months @ $5,	Fairview	60 00	
Duthie Hardware Co	Corkolium, oil, brushes, etc.,	Fernie	48 20	
Mills, Edwin	Services as Janitor and shovelling coal and snow, 7 days @ $3,	Fernie	21 00	
Quail, J D	Scrub-brushes, hose-nozzle, etc.,	Fernie	2 15	
Trites-Wood Co, Ltd	Soap, Gold Dust, cheese-cloth, etc.,	"	66 20	
Fort Fraser Drug Co	Chloride of lime,	Fort Fraser	75	
Fort Fraser Merc Co	Brushes, towels, etc.,	"	6 25	
Mary (Indian)	Cleaning office,	"	3 50	
Pitkin, Miss C A	do 2 days @ $2.,	"	4 00	
Reeves, C E	Soap and brooms, etc.,	"	2 15	
Buckham, John A	do	Golden	80	
Hamilton, A C	Ice and shavings,	"	7 25	
	Carried forward			1,961 28

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			1,961 28
	XII.—PUBLIC WORKS.—*Continued.*			
	Miscellaneous.—*Continued.*			
	Vote No. 245.—Extra Janitors and Janitors' Supplies.—Continued.			
Linney, James R	Laundry, towels, etc.,	Golden	1 75	
Nickolson, Chas	Gasolene,	"	60	
Parsons, Ltd, H G	Matches, screw-hooks, and candles,	"	1 05	
Rolston, D R	Matches, brooms, etc.,	"	6 15	
Warren, Charles A	Hardware, polish, etc.,	"	5 85	
Woods, J T	Mop, matches, and Gold Dust,	"	2 55	
Frakes, Wm	Services as Janitor, 6 days @ $2.50,	Grand Forks	15 00	
Koung Wing	Washing towels,	"	12 95	
Manly, W K C	Metal-polish,	"	85	
Miller & Gardner	Mop-cloths and O-Cedar,	"	7 25	
McInnes & Co, N L	Pearline, towelling, etc.,	"	10 05	
Petrie, Robert F	Toilet-paper,	"	10 50	
Campolieto, P	Cleaning Government Building, etc., 2½ days @ $3,	Greenwood	7 50	
Greenwood Grocery	Mop, Gold Dust, etc.,	"	3 75	
Jenks, Fred	Services, cleaning windows, etc., 7 days @ $3,	"	21 00	
Lee & Bryan	Broom, Bon Ami, etc.,	"	1 55	
Rendell, G A	1 duster,	"	50	
White, J L	Sprayer, toilet-paper, etc.,	"	3 15	
Willcox, J H	Washing towels,	"	9 30	
Hudson's Bay Co	Soap,	Hazelton	1 55	
Jackman, Lee	Washing towels,	"	1 05	
Sargent, Ltd, R S	Hardware and towels,	"	3 70	
Sam Lee	Services, washing floors, etc., 56 hours,	"	14 05	
Sing Lee	Washing towels,	"	55	
Stephenson & Crum	Cleaning chimney and stove-pipes,	"	1 40	
Yen, Charlie	Washing floors, etc.,	"	10 55	
Clements, J H	Soda, bicarbonate, etc.,	Kamloops	2 15	
Dalgleish, N S	Brooms, mops, etc.,	"	20 30	
Hudson's Bay Co	Muslin, cheese-cloth, etc.,	"	75 68	
Hutchinson, Mrs	Services, washing towels, 20 weeks @ 50 cents,	"	10 00	
Imperial Oil Co, Ltd	Floor-dressing,	"	14 17	
Kamloops Steam Laundries, Ltd	Washing,	"	9 90	
McCall, R	Toilet-paper, Old Dutch, lye, etc.,	"	37 55	
Scribner, R F	Services as Nightwatchman, 9 days @ $2.50,	"	22 50	
Wilcox-Hall, Ltd	Oil and emery,	"	85	
Byers, Giegerich, Green Co	Floor-brush, ammonia, etc.,	Kaslo	3 40	
Fawcett, C M	Washing towels,	"	1 50	
Fawcett, C M	do	"	1 50	
Phair, C A	Broom and axe,	Lillooet	2 00	
Jackson, Samuel R	Services as Janitor, 15 days @ $ 2.50,	Merritt	37 50	
Scott, Walter	do 12 months 10.00,	Nakusp	120 00	
Hoggan, Wm	Broom,	Nanaimo	2 00	
Hoskin, E A	Cartage,	"	50	
Imperial Laundry Co	Laundry,	"	95	
Pearson & Co, Geo S	Coal-hods, brush, etc.,	"	6 25	
Red Seal Mfg Co	Red Seal sweeping compound,	"	5 50	
Bell Trading Co	Soap, toilet-paper, matches, etc.,	Nelson	24 85	
Elliot, R J	Services as Janitor, 30 days @ $2.50,	"	75 00	
Hudson's Bay Co	Brooms, soap, etc.,	"	21 05	
Kootenay Steam Laundry	Laundry,	"	6 25	
Matheson, J H	Sharpening scissors, etc.,	"	1 25	
Miller, Arthur	Services as Janitor, 14 days @ $2.50,	"	35 00	
Nelson Hardware Co	Oil, wringer, etc.,	"	15 60	
Nelson Steam Laundry	Laundry and cleaning carpet,	"	29 50	
Poole Drug Co, Ltd	Fly-paper,	"	1 20	
Walter, C W	Services as Janitor, 14 days,	"	31 50	
Wood-Vallance Hdwre Co	Broom and mop-stick,	"	2 25	
Nelson, C F	Chloride of lime,	New Denver	2 00	
Anderson & Lusby	Floor-dressing and toilet-paper,	New Westminster	23 40	
Annandale Supply Co	Cleanser, soap, etc.,	"	9 40	
Beck, Alex	Services as Night Janitor, 61 nights @ $2.50,	"	152 50	
B C Clean Towel Supply	Toilet and towel supply for 12 months @ $1.25,	"	15 00	
Bryson & Sons	Broom, mops, and gasolene,	"	4 80	
Calbick, Roy	Services, operating elevator, 9½ days @ $2.50,	"	23 75	
Campbell, F C	Express on tube-cleaner,	"	25	
Cunningham & Son, Geo	Work on flue-cleaner and shovel,	"	75	
Cunningham Hdwre Co	Oil, liquid soap, hose, etc.,	"	50 77	
Curtis & Co, D S	Toilet-paper,	"	15 00	
Crane Co	Flue-brush,	"	1 35	
Kirk, H T	Brush and mop,	"	60	
Moulton, C	Repairing vacuum cleaner, 2 brushes,	"	4 40	
Royal City Laundry Co	Washing towels,	"	51 67	
Smith Co, Ld, The T H	Towels,	"	4 50	
Speck, Geo R	Sharpening saw,	"	25	
Trapp & Co, Ltd, T J	Broom, turpentine, etc.,	"	2 40	
	Carried forward			1,961 28

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			1,961 28
	XII.—PUBLIC WORKS.—*Continued.*			
	Miscellaneous.—*Continued.*			
	Vote No. 245.—Extra Janitors and Janitors' Supplies.—Continued.			
West Disinfecting Co	Protectu fluid,	New Westminster	5 00	
Armstrong's Dept Store	Floor-oil,	Nicola	4 00	
Carrington, Thomas	Services as Janitor, 12 months @ $25 ; matches, $1 ;	"	301 00	
Howse Co, Ltd, The A E	Broom, axe-handle, etc.,	"	3 38	
Cariboo Trading Co, Ltd	Brooms, brush, etc.,	150-mile House	3 60	
Paxton, Eileen	Chore labour, 10 months 11 days @ $7.50,	"	78 75	
Edge Co, The A W	Ava oil and sprays,	Prince Rupert	25 00	
Fritz, the Handy Man	Cleaning chimney,	"	1 00	
Leek, Mrs G	Cleaning curtains,	"	2 00	
McColl, George P	Gold Dust, matches, etc.,	"	21 00	
Orme, Cyril H	Pears soap, chamois, etc.,	"	9 00	
Orme's, Ltd	do	"	3 75	
Patterson Messenger Service	Message,	"	75	
Pioneer Laundry, Ltd	Laundry,	"	14 80	
Thompson Hdwre Co, Ld	Oil, mops, axe, etc.,	"	26 85	
Tite, Geo D	Towels and cheese-cloth,	"	3 95	
Van Gastel, E	Services as Janitor, 326 hours @ 45 cents,	"	146 70	
Bolin, A	do 12 months @ $15,	Princeton	180 00	
Cook, F P	Broom,	"	2 50	
Howse Co, Ltd, A E	Lye and Gold Dust,	"	65	
Princeton Drug & Book Store	Chloride of lime,	"	25	
Thomas Bros	Washing-powder, broom, Bon Ami, etc.,	"	1 90	
Beattie, G D	Chloride of lime, soap, etc.,	Queen Charlotte City	8 90	
Jones, Miss Edith	Services as Janitor, 4 months @ $5,	"	20 00	
Phair, Miss M	do 8 " 5,	"	40 00	
Chung Yok	Labourer,	Quesnel	2 00	
Fraser & Co, Ltd, John A	Lumber,	"	50	
Howison Estate, J W	Oil, mop, etc.,	"	8 85	
Michaud, C	Services cleaning, etc.,	"	17 00	
Stigings, C N	Services as Janitor, 5 months @ $25 ; labour, $2.50 ;	"	127 50	
C B Hume & Co, Ltd	Cheese-cloth,	Revelstoke	50	
Lawrence Hdwre Co, Ld	Ladder, manhole gaskets, etc.,	"	26 05	
Ma Sam	Washing towels and dusters,	"	1 00	
Masson, L C	Washing-soda,	"	1 00	
Reveltoke S Laundry Co	Laundry,	"	75	
Squarebriggs, R S	Cheese-cloth and laundry,	"	90	
Sturdy Hardware Co	Brooms, pail, etc.,	"	7 35	
Sutherland, J P	Lumber,	"	50	
Young & Co, Fred	Cheese-cloth,	"	1 00	
Hunter Brothers Ltd	Oil, duster, soap, etc.,	Rossland	9 75	
Braun, Edward	Services as Janitor, 12 months @ $35,	South Fort George	420 00	
Hoods, Ltd	Cheese-cloth, pearline, etc.,	"	9 20	
N Lbr & Mercantile Co	File and pail,	"	1 25	
Falconer, T W	Chloride of lime,	Stewart	4 80	
George, Gus	do	"	2 90	
Hudson's Bay Co	Lye and Bon Ami,	Telegraph Creek	75	
Hyland Estate, J	Broom, brush, etc.,	"	3 25	
Jacobson, Henry	Removing snow,	Trout Lake	3 00	
LeBeau, Frank	Pearline, files, etc.,	"	2 65	
B C Refining Co, Ltd	Floor-dressing, Encola fluid, and soap,	Vancouver	144 40	
Brown Hardware Co, R L	Royal cleanser, mops, etc.,	"	209 80	
Cartwright, Arthur	Metal-polish,	"	9 00	
Dukes Grocery	Brushes, soap, and Dutch cleanser,	"	8 55	
Flett, Ltd, J A	Mop-sticks,	"	7 75	
Harrison & Co, Ld, W M	Soap,	"	1 50	
Hudson's Bay Co	Cheese-cloth, matches, etc.,	"	36 95	
Lewis & Sills	Liquid veneer,	"	18 00	
London Grocery Co, Ltd	Corn brooms, lye, etc.,	"	11 15	
Martin, Finlayson & Mather, Ltd	Liquid veneer, Brasso, etc.,	"	31 65	
McArthur & Co, Ld, W T	Royal Crown cleanser, liquid soap, etc.,	"	167 47	
Red Seal Manfg Co	Red Seal sweeping compound,	"	17 50	
Smith, Arthur G	(Paid) Cheese-cloth,	"	2 00	
Smith, Davidson & Wright, Ltd, The	Toilet-paper,	"	38 88	
Storey & Campbell	Sponges,	"	5 40	
Van Towel Service Co, Ld	Towel service,	"	481 00	
Moore, S H	Washing towels,	Vernon	15 60	
Ross, J E	Trap-cleaner and torch,	"	5 00	
Seymour, S P	3-flue brush,	"	1 00	
Vernon Hardware Co, Ld	Oil, soap, soda, etc.,	"	35 30	
Bowes, Cyrus H	Carbolic fluid,	Victoria	10 00	
Brown & Co, R A	Brooms, mop-handles, coal-scuttles, etc.,	"	21 60	
B C Brush Works	Dusters, brooms, and brushes, etc.,	"	77 77	
Calwell, H	Sawdust,	"	5 25	
	Carried forward			1,961 28

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	1,961 28
	XII.—PUBLIC WORKS.—*Continued.*			
	Miscellaneous.—*Continued.*			
	Vote No. 245.—Extra Janitors and Janitors' Supplies.—Continued.			
Carter, W	Brushes,	Victoria	72 75	
Copas & Young	Bon Ami, coal-oil, soap, etc.,	"	29 70	
Drake Hardware Co, Ltd	Hose and cores for filters,	"	26 25	
Gordon Drysdale, Ltd	Cheese-cloth,	"	12 00	
Fraser, Geo A	Bicarbonate of soda, sulphuric acid,	"	12 20	
Kirkham & Co, Ltd, H O	Chloride of lime, Dutch cleanser, etc.,	"	42 61	
Martin & Robertson, Ltd	Cudahy cleanser,	"	16 50	
McQuade & Son, Ltd, P.	Brushes, brooms, oil, etc.,	"	12 90	
Pendray & Sons, Ld, W J	Liquid soap, washing-powder, etc.,	"	89 65	
Powell & Sons, Geo	Brooms, brushes, jugs, etc.,	"	52 80	
Rithet & Co, Ltd R P	Matches, Old Dutch, oil, etc.,	"	34 85	
Staneland Co, Ltd	Sweeping compound,	"	16 50	
Standard Steam Laundry	Laundry,	"	814 94	
Spencer, Ltd, David	Cloth, towels, etc.,	"	201 98	
Terry, Wallace S	Brushes, soap, etc.,	"	12 25	
Turner, Beeton & Co, Ld	Towels and cloth,	"	450 48	
Vic Pioneer Towel Deliv'y	Towels and soap,	"	18 00	
Victoria Furniture Co	Mop-cloths, sweeping compound, and cleanser,	"	37 70	
Weiler Bros, Ltd	Dusters, carpet-sweepers, etc.,	"	99 95	
West Disinfecting Co	Protectus fluid, coronoleum,	"	33 75	
Wilson Bros	Soap,	"	8 30	
Wilson Co, Ltd, The B.	Ice,	"	192 75	
Windsor Grocery Co	White Swan powder, soap, salt, etc.,	"	35 00	
Dobson, D	Services, cleaning, etc.,	Wilmer	5 00	
Patten, R	do	"	6 50	
Creighton, D J	Chloride of lime, coal-hod, etc.,	Yale	2 30	
Indian Charlie	Services, scrubbing and cleaning,	"	15 50	
	EXTRA WATCHMEN, LABOURERS, JANITORS, FIREMEN, ETC.			
Andrews, H	12 months @ $65.00,	Victoria	780 00	
Bailey, H P	2 " 65.00,	"	130 00	
Barnes, H	14 hours .40; 1 day @ $3.00; 1 day @ $2.50;	"	11 10	
Barber, J	1 day 2.50,	"	2 50	
Bailey, Geo	2½ days 3.00,	"	7 50	
Binks, W H	4 " 3.00,	"	12 00	
Brazier, H	23 " 2.50,	"	57 50	
Carne, F	25 " 2.50; 8 months @ $65.00;	"	582 50	
Cresswell, A	229 " 2.50,	"	572 50	
Dangerfield, F	12 months 65.00,	"	780 00	
Daft, G	3½ days 3.00,	"	10 50	
Davies, A	14 hours .40,	"	5 60	
Deans, W	1 day 2.50,	"	2 50	
Eccles, R	12 months 65.00,	"	780 00	
Elemhurst, A V	292½ days 2.50; 1 month @ $65.00;	"	796 25	
Ellerbeck, H	12 months 65.00,	"	780 00	
Engleson, H C	4 days 3.00,	"	12 00	
Evans, John	14 hours .40,	"	5 60	
Ewart, A	11 days 3.00,	"	33 00	
Faulkner, H	1 month 24.00; 1 month @ $30.00;	"	54 00	
Farquhar, Harold	7 days 1.00,	"	7 00	
Ford, E A	26 " 2.50,	"	65 00	
Fulton, J	9 " 2.60; 8 months @ $80.00;	"	663 40	
Handley, P	11 " 3.00,	"	33 00	
Harrison, F W	3 " 3.00,	"	9 00	
Harrison, L	9 " 3.00,	"	27 00	
Harrison, S F	3 " 3.00,	"	9 00	
Harrison, F	20½ " 3.00,	"	61 50	
James, H	14 hours .40,	"	5 60	
Jeffers, J	76 days 2.50; 9 months @ $65.00;	"	775 00	
Lang, A	14 " 3.00,	"	42 00	
Leslie, J	2 " 3.00,	"	6 00	
Little, D	3 " 3.00,	"	9 00	
Marshall, J	10 months 30.00,	"	300 00	
Mitchell, H	1 day 2.50,	"	2 50	
Moyes, E	4 days 3.00; 14 hours @ 40c.;	"	17 60	
McCabe, M	257 " 2.50,	"	642 50	
McCoy, E	32½ " 2.50,	"	76 25	
McCabe, Ed	5½ " 3.00,	"	16 50	
McKereth, P	1 day 2.50,	"	2 50	
Naysmith, J	2 days 2.50; 12 months @ $65.00;	"	785 00	
Perrier, W	10½ " 3.00,	"	31 50	
Phelps, F H	271 " 2.50,	"	677 50	
Povey, A	15 " 3.00; 11 days @ $2.50;	"	68 00	
Prior, T	12 months 65.00,	"	780 00	
Ralph, T	13 days 3.00,	"	39 00	
	Carried forward		.....	1,961 28

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	1,961 28
	XII.—PUBLIC WORKS.—*Continued.*		
	Miscellaneous.—*Continued.*		
	Vote No. 245.—Extra Janitors and Janitors' Supplies.—Concluded.		
	EXTRA WATCHMEN, LABOURERS, JANITORS, FIREMEN, ETC.—*Concluded.*		
Renouf, W.	6 days $3.00, Victoria	18 00	
Russell, R.	263 " 2.50; 3 months @ $65.00; "	852 50	
Savage, E J.	14 hours .40, "	5 60	
Seymour, E J.	276 days 2.50; 61 days @ $2.60; 1 mo. @ $70.00; "	918 60	
Sherwood, D H.	2 months 65.00; less military pay $23.18, "	106 82	
Sheperd, H.	2 days 3.00, "	6 00	
Smith, E	365 " 2.50, "	912 50	
Speers, J M.	9 " 2.50, "	22 50	
Steverson, H J.	14 hours .40, "	5 60	
Steverson, E G.	14 " .40, "	5 60	
Stoddart, P.	2 days 3.00, "	6 00	
Sutton, G.	2 " 3.00, "	6 00	
Taylor, Hugh	12 months 65.00, "	780 00	
Thomas, R E.	12 " 65.00, "	780 00	
Tite, Chas	37 days 3.00; 5½ days @ $2.50; "	124 75	
Tyson, R.	5 " 1½ hrs. 2.50, "	13 00	
Unwin, J.	11 " 3.00, "	33 00	
Watt, J.	1½ " 3.00, "	4 50	
Wainwright, Albert.	8 " 2.50; 1 month @ $70.00; "	90 00	
Whitfield, Geo.	12 months 65.00, "	780 00	
Young, J.	9½ days 3.00, "	28 50	
			23,917 82
	Vote No. 246.—Garage, Victoria (Chauffeurs' Wages and Expenses, Supplies and Repairs).		
Armstrong, J.	Services at Government garage .....12 months @ 140; expenses, $65.05	1,745 05	
Armstrong Bros	Auto supplies and repairs	137 95	
Auto Supply Co.	Tires, tubes, repairs, etc.	161 87	
Baines, H.	do	327 80	
Begg Motor Co, Ltd.	Auto supplies and repairs	116 08	
B C Car Owners' Assoc'n	Tire, driver.	57 40	
Burgess Bros	Hot.air casing	20 00	
Can Fairbanks-Morse Co	Carbon-brush holder, medium oil, etc.	39 13	
Christie, G D.	Gum boots, rubber coat	15 75	
Coomes, B.	Helping in garage 9 days @ $3	27 00	
Cox & Perkins.	Re-covering car	35 00	
Dunlop Tire & Rubber Goods Co, Ltd.	Tubes and repairs	26 15	
Hafer Machine Co, Ltd.	Repairs and material	11 25	
Imperial Oil Co, Ltd	Gasolene and royalite	215 85	
Jameson & Rolfe.	Auto supplies and repairs, recharging batteries.	100 45	
Mable, W.	Repairs to springs, etc.	21 25	
Meston, J.	do	7 50	
Morley, G.	Driving car, help in garage	7 00	
Nairne, D.	do expenses	56 30	
Plimley, T.	Auto supplies and driving cars.	123 10	
Provincial Police.	Motor licences	20 00	
Revercomb Motor Co.	Tires, tube-net, batteries, grease, etc.	297 10	
Sampson Motor Co.	Gasolene and storage	8 53	
Spencer, Ltd, D.	Cheese-cloth	5 95	
Tait Tire Co	Tires	94 40	
Vic Mach Depot Co, Ltd	Gasolene	202 92	
Victoria Hardware Co.	Hose, bolts, etc.	12 05	
			3,892 83
	Vote No. 247.—Premium, Insurance, Government Buildings.		
Baird, S A.	Premium, 3 years, Pacific Underwriters, $15,000; Dominion, $5,000; Victoria.	185 00	
B C Land & I Agency, Ld	do Phoenix Assurance Co., $20,000, "	185 00	
Benson & Winslow.	do British Dominions, $10,000, "	92 50	
Bridgman, A W.	do Commercial Union, $20,000, "	185 00	
Brit-American Trust Co.	do Phoenix, $60,000; Alliance, $40,000; "	925 00	
Brown, P R.	do British America, $20,000, "	185 00	
Bullen & Jamieson, Ltd.	do Employers' Liability, $10,000, "	92 50	
Cameron Investment & Securities Co.	do British Northwestern, $10,000; L'Union, $10,000; "	185 00	
Canada West Loan Co.	do North Empire, $10,000, "	92 50	
Coles, A.	do Fidelity-Phoenix, $10,000; Alliance Assurance, $10,000; "	185 00	
Conyers & Co, L U.	do Liverpool, Manitoba, $20,000, "	185 00	
Cross & Co.	do National Union, $20,000, "	185 00	
Crow & Co, W.	do Providence, Washington, $5,000, "	46 25	
Currie & Power.	do Yorkshire, $5,000; Nova Scotia Fire, $10,000; Franklin, $5,000, Victoria	185 00	
	Carried forward	... .	29,771 93

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward.....	.....	29,771 93
	XII.—PUBLIC WORKS.—*Continued.*		
	Miscellaneous.—*Continued.*		
	Vote No. 247.—Premium, Insurance, Government Buildings.—Continued.		
Dalby & Lawson.....	Premium, 3 years, Agricultural, $20,000, Victoria	185 00	
Day, R S.....	do Guardian Assur., $10,000; Law, Union & Rock, $10,000; "	185 00	
Douglas, Mackay & Co..	do Can. National, $10,000; Royal Exchange Assur., $10,000; "	185 00	
Drury, K.....	do Detroit, $5,000, "	46 25	
Duck & Johnston.....	do London Mutual, $5,000; Mount Royal, $5,000; "	92 50	
Duck & Johnston.....	do Nationale, $5,000; Stuyvesant, $5,000; "	92 50	
Dunford & Son, Ltd.....	do Michigan, $10,000, "	92 50	
Elliott, J G.....	do Atlas Assurance, $20,000, "	185 00	
Empire Realty Co.....	do British Crown Assurance, $20,000, "	185 00	
Ferguson, R N.....	do Hudson Bay, $5,000; Westchester, $5,000; "	92 50	
Findlay, Durham & Brodie.....	do Northern, $20,000, "	185 00	
Flint & Co.....	do Aetna, $5,000, "	46 25	
George & Co, A.....	do Occidental, $10,000; Northwestern National, $10,000; "	185 00	
Gillespie, Hart & Todd, Ld	do Firemen's Fund, $20,000, "	185 00	
Goodlake, T J.....	do Arizona, $5,000, "	46 25	
Green & Burdick Bros, Ld	do Springfield, $50,000; Employers' Liability, $140,000; "	1,757 50	
Greenhill, G & J A.....	do California, $20,000, "	185 00	
Griffith Co.....	do Fireman's Underwriters, $5,000; Acadia, $10,000; Equitable, $5,000, Victoria	185 00	
Hall, R.....	do Liverpool & London & Globe, $20,000, "	185 00	
Heisterman, Forman & Co	do Western, $10,000; Norwich Union, $10,000; "	185 00	
Island Investment Co, Ld	do Pacific Coast, $20,000, "	185 00	
Johnson, E M.....	do Union Assurance, $20,000, "	185 00	
Jones, Ltd, A W.....	do Caledonian, $20,000, "	185 00	
King Bros.....	do Atlas Assurance, $5,000, "	46 25	
Kingham, J.....	do Underwriters of N.Y., $20,000, "	185 00	
Lee & Fraser.....	do Aetna, $10,000, "	92 50	
Leeming Bros, Ltd.....	do Niagara, $10,000; Fire Association, $10,000; "	185 00	
Lloyd, Young & Russell.	do Mercantile, $10,000, "	92 50	
Man, C S.....	do General, $20,000, "	185 00	
Miller & Co, Ltd, H D...	do Canadian Fire, $20,000, "	185 00	
Monteith & Co, Ltd, W..	do London Assurance Corporation, $20,000, "	185 00	
Moody Co, S P.....	do New Zealand, $10,000, "	92 50	
Mackay & Gillespie, Ltd.	do Insurance Co. of North America, $20,000, "	185 00	
McGregor & Co.....	do Quebec, $10,000, "	92 50	
Nivin, F C.....	do Globe, $5,000, "	46 25	
Oddy, B S.....	do North British & Mercantile, $10,000, "	92 50	
Payne & Pitts.....	do North West Fire, $20,000, "	185 00	
Pemberton & Son.....	do Scottish Union & National Insurance Co. of Edinburgh, $10,000; Sun, $10,000; Victoria	185 00	
Rithet & Co, Ltd, R P..	do Queen, $20,000, "	185 00	
Robertson, R J.....	do Century, $5,000, "	46 25	
Saunders, J R.....	do Newark, $15,000, "	138 75	
Swinerton & Musgrave..	do Connecticut, $20,000, "	185 00	
Turner, Beeton & Co, Ltd	do Hartford, $20,000, "	185 00	
Warren, G I.....	do British Colonial, $10,000, "	92 50	
White & Sons, E.....	do Equitable, $10,000, "	92 50	
Winch & Co, Ltd, R V...	do London & Lancashire, $10,000; Royal, $10,000; "	185 00	
Astley, W.....	do General Fire Insurance, $15,000, Vancouver	123 00	
Austin & Co, A E.....	do Northern Assurance Co., $15,000, "	129 00	
Balfour, Guthrie & Co...	do British Northwestern, $15,000, "	129 00	
Banfield, J J.....	do Norwich, $15,000, "	129 00	
Bell-Irving & Co, Ltd, H	do Phoenix, $10,000; Quebec, $5,000; "	129 00	
British Amer Trust Co..	do British Crown, $15,000, "	129 00	
B C Financial & Investment Co, Ltd.....	do Palatine Insurance Co., $15,000, "	129 00	
Buscombe Securities Co.	do Western Assurance, $10,000, "	86 00	
Campion & Pound.....	do Ocean Accident & Guarantee Corporation, $5,000, "	43 00	
Ceperley, Rounsefell & Co, Ltd.....	do Liverpool, London & Globe, $5,000; British American, $5,000; Acadia, $5,000; Vancouver	123 00	
Cramer & Co, Ltd.....	do Century Fire Insurance, $5,000, "	43 00	
Devine & Co, Ltd, H T..	do Yorkshire, $5,000, "	64 00	
Drayton, C R.....	do General, $15,000, "	123 00	
Edwards, G L.....	do Guardian Assurance, $ 5,000, "	43 00	
Graveley, W.....	do " 10,000, "	82 00	
Harris, S A.....	do Canada National, $10,000, "	86 00	
Hobson & Co, Ltd.....	do Mt. Royal Assurance Co., $15,000, "	123 00	
Holland & Co, W S.....	do New Zealand, $7,500; Century, $7,500; "	123 00	
London & British North American Co, Ltd.....	do North British & Mercantile, $15,000, "	123 00	
Mahon, C E.....	do Pacific Coast, $15,000, "	129 00	
Mills-Ross, Ltd.....	do British Dominions, $15,000, "	123 00	
Macaulay & Nicolls.....	do Dominion of Canada, $7,500; Palatine, $17,500; "	320 00	
McDowell, H.....	do Royal Insurance Co., $10,000, "	86 00	
	Carried forward.....	.....	29,771 93

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		29,771 93
	XII.—PUBLIC WORKS.—*Concluded.*		
	Miscellaneous.—*Concluded.*		
	***Vote No. 247.—Premium, Insurance, Government Buildings.*—Concluded.**		
Northwest Trust Co, Ltd	Premium, 3 years, Commercial Union, $15,000, Vancouver	129 00	
Rand & Fowler, Ltd, E E	do Mercantile, $15,000, "	129 00	
Richards, Akroyd & Call	do Atlas, $15,000, "	129 00	
Robertson & Pennock, Ld	do Commercial Union, $15,000, "	129 00	
Sharples & Sharples	do London Assurance Corporation, $15,000, "	123 00	
Short, Ltd, A E	do Occidental, $15,000, "	129 00	
Waghorn, Gwynn & Co	do Premium Caledonian, $15,000, "	129 00	
Winch & Co, Ltd, R V	do London, Lancashire, $15,000, "	129 00	
Yorkshire & Canadian Trust, Ltd	do Yorkshire Insurance Co., $15,000, "	129 00	14,872 00
	Vote No. 248.—Special Guard, Parliament Buildings.		
Almas, A E	Services as Special Guard, 33 days @ $3	99 00	
Andrews, J	do 60 " 2.50	150 00	
Battrick, D H	do 2 months 30	60 00	
Bentley, F McP	do 19 days 2.50	47 50	
Briscoe, I	do 53 " 2.50	132 50	
Bryson, G	do 7 " 3	21 00	
Bury, F W	do 17 days @ $2.50; extra allowance, 8.50	51 00	
Campbell, A	do 7 days @ 2.50	17 50	
Christy, F	do 6 " 2.50	15 00	
Conlan, E P	do 14 " 3.00	42 00	
Cresswell, A	do 60 days @ $2.50; 28 " 3	234 00	
Down, W C	do 12 " 2.50	30 00	
Emes, C S	do 33 " 3	99 00	
Fitch, W	do 5 " 2.50	12 50	
Ford, E A	do 75 " 2.50	187 50	
Forsyth, J	do 2 " 2.50	5 00	
Fulton, J	do 1 month @ $80; 1 " 3	83 00	
Gillow, R	do 61 " 2.50	152 50	
Grassick, J	do 6 " 2.50	15 00	
Hall, J W	do 18 " 3	54 00	
Handley, P	do 8 " 2.50	20 00	
Johnston, J	do 61 " 2.50	152 50	
Kirchin, W	do 60 days @ $2.50; 30 " 3	240 00	
Kirk, J	do 59 " 2.50	147 50	
Knight, R	do 73 " 2.50	182 50	
Lorimer, W	do 61 " 2.50	152 50	
Lynch, E	do 17½ " 2.50	43 75	
Marshall, J T	do 2 months 30	60 00	
Moore, C	do 32 days 3	96 00	
Mullen, H	do 4 " 2.50	10 00	
McCabe, H	do 32 " 3	96 00	
McCoy, E	do 1 " 2.50	2 50	
McDonald, W J	do 32 " 3	96 00	
McKinley, D	do 20 " 2.50	50 00	
O'Hara, P	do 39½ " 2.50	98 75	
Phelps, F H	do 59 " 2.50	147 50	
Ricketts, S L	do 57 " 2.50	142 50	
Rogers, J N	do 25 " 3.00	75 00	
Seymour, E J	do 1 " 2.50	2 50	
Smith, J	do 33 " 3	99 00	
Speers, J	do 1 " 2.50	2 50	
Tait, A	do 7 " 2.50	17 50	
Tite, C H	do 58 days @ $2.50; 10 " 3	175 00	
Wainwright, A	do 31 " 3	93 00	
Ward, A	do 22 " 2.50	55 00	
Waterson, E	do 61 " 2.50	152 50	
Walters, H	do 15 " 3	45 00	
Weetman, E F	do 33 " 3	99 00	
Whitehead, T	do 4 " 2.50	10 00	
Williamson, G	do 31 " 3	93 00	
Canadian Pacific Ry Co	Fares, 6 men from Vancouver to act as Guards	12 30	4,177 30
			48,821 23

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	XIII.—MISCELLANEOUS.		
	Provincial Secretary's Department.		
	Vote No. 249.—Advertising.		
Abbotsford Post	Advertising sundry notices	28 60	
Armstrong Advertiser	do	10 00	
Ashcroft Journal	do	75 88	
B C Financial Times	do	7 68	
B C Mining Exchange & Engineering News	do	186 00	
Canadian Mining Journal	do	131 25	
Cariboo Observer	do	172 88	
Chilliwack Progress	do	56 45	
Courtenay Review	do	2 40	
Cowichan Leader	do	20 53	
Cranbrook Herald	do	73 88	
Creston Review	do	3 00	
Dept of Pub, Printing & Stationery, Ottawa	do	19 65	
Empire Publishing Co	do	8 40	
Enderby Press	do	37 30	
Fernie Free Press	do	50 92	
Fraser Valley Record	do	64 96	
Golden Star	do	1 80	
Grand Forks Gazette	do	18 48	
Grand Forks Sun	do	2 40	
Interior News	do	61 20	
Islander Print & Pub Co	do	34 96	
Kamloops Telegram	do	31 68	
Kamloops Stan-Sentinel	do	33 60	
Kootenaian	do	24 40	
Ledge	do	17 36	
Ladysmith Chronicle	do	91 20	
Lillooet Prospector	do	126 51	
Mail-Herald Pub Co, Ltd	do	6 46	
Merritt Herald	do	63 96	
Mines Publishing Co, Ld	do	43 75	
McBride Journal	do	116 52	
Nicola Valley News	do	23 50	
Nanaimo Free Press	do	81 90	
Nanaimo Daily Herald	do	55 55	
Nelson Daily News	do	93 31	
New Westm'r Columbian	do	435 93	
Omineca Herald	do	13 48	
Pacific-Can Ptg & Pub Co	do	42 86	
Penticton Herald	do	82 17	
Port Alberni News	do	79 32	
Prince George Citizen	do	260 92	
Prince George Star	do	23 40	
Prince Rupert Journal	do	20 00	
Record Publishing Co	do	290 60	
Revelstoke Review	do	41 80	
Rossland Miner	do	29 16	
Salmon Arm Observer	do	2 00	
Sidney Ptg & Pub Co, Ld	do	3 25	
Similkameen Star	do	7 80	
Summerland Review	do	40 16	
Surrey Gazette	do	23 28	
Technical Press, Ltd	do	62 00	
Van Daily Province	do	382 45	
Van Daily N-Advertiser	do	75 70	
Vancouver Standard	do	33 80	
Van Sun Pub Co, Ltd	do	446 35	
Vancouver World	do	23 60	
Vanderhoof Herald	do	70 78	
Vernon News	do	121 43	
Victoria Colonist	do	429 40	
Victoria Daily Times	do	407 95	
Vic Week Pub Co, Ltd	do	73 88	
			5,401 79
	Vote No. 250.—Burial of Indigent Persons.		
Forrest, George	Burial expenses of 1 indigent person, Alberni	37 00	
Thompson, George B	do 1 " " Bull River	30 48	
Paffard, Fred	do 1 " " Chatman Bar	10 00	
Sutton, J	do 1 " " Comox	25 00	
MacPherson, F M	do 1 " " Cranbrook	22 00	
MacPherson, F M	do 1 " " "	22 00	
McLeod, J N	do 1 " " Edgewood	10 00	
Thomson, Geo B	do 3 " persons, Fernie	100 00	
	Carried forward		5,401 79

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	5,401 79
	XIII.—MISCELLANEOUS.—*Continued.*		
	Provincial Secretary's Department.—*Continued.*		
	Vote No. 250.—Burial of Indigent Persons.—Concluded.		
Stephenson & Crum	Burial expen. of 7 indigent persons, Hazelton	305 00	
Cline, Sperry	" " " "	2 15	
Ruddy & MacKay	" " " "	5 00	
Brass & Boeing	do 1 " person, Hedley	55 00	
Bears, F	do 6 " persons, Hope	18 00	
Henderson, J C	do 1 " person, "	30 00	
Hope Transfer Co	do 2 " persons, "	39 00	
Gordon, J L	do 12 " " Kamloops	259 60	
Kamloops Undertak'g Co	do 5 " " "	124 00	
Wilson, Thos O	do 2 " " Kaslo	57 00	
Hunt, G A	do 1 " person, Kitchener	25 00	
Jenkins, D J	do 1 " " Nanoose	40 00	
Fisher, G	do 1 " " Natal	20 00	
Robertson, D J	do 2 " persons, Nelson	50 00	
Standard Furniture Co	do 1 " person, "	27 95	
Burgess, A	" " " "	3 50	
Elliot, J	" " " "	7 00	
Trickett, George	do 1 " " New Denver	25 00	
Joseph, Harry	do 1 " " Maria Island	10 00	
Barwick, N J	do 4 " persons, Merritt	116 75	
Powell River Co, Ltd	do 1 " person, Powell River	27 57	
Pr George Undertak'g Co	do 3 " persons, Prince George	87 00	
B C Undertakers & Embalmers	do 1 " person, Prince Rupert	50 00	
French, D M	do 2 " persons, Princeton	60 00	
B C Mills Tmbr & Tdg Co	do 4 " " Quathiaski Cove	15 00	
Bryant, D	" " " "	7 00	
Marshall, Sidney	" " " "	45 00	
Rendle, J Edward	" " " "	10 00	
Fitzpatrick, O	do 1 " person, Soda Creek	10 00	
Wright, W	" " " "	15 00	
Howson & Co, Ltd	do 1 " " Solsqua	30 70	
B C Undertakers	do 1 " " Surf Inlet	40 00	
Harbour Shipping Co, Ld	do 2 " persons, Vancouver	20 00	
Mt Pleasant Funl F'shings	" " " "	48 00	
Armstrong & Hotson	do 1 " person, "	24 00	
Nunn, Thomson & Clegg	do 1 " " "	24 00	
Gregory, H	do 1 " " Vanderhoof	25 00	
B C Funeral Co (Hayward's), Ltd	do 1 " " Victoria	35 00	
Sands Funeral Furnishing Co, Ltd	do 1 " " "	40 00	
Thomson, Frank L	do 2 " persons, "	50 00	
McGregor, E J	Removing coffin and body from railroad depot, Crescent Valley	1 50	
City of Prince Rupert	Cost of plot and digging 5 graves, Prince Rupert	95 00	
Gregory, H	Supplying covered coffin, Vanderhoof	18 00	
Sanford, S G	Services, burying body washed ashore from "Carlemapu," wreck on West Coast	2 50	
			2,256 70
	Vote No. 251—Civil Service Commissioners, Examiners, and Registrar, under "Public Service Act."		
Goepel, W J	Services as Commissioner 12 months @ $25	300 00	
Johnson, A M	do 1 " 6 d. 25	30 35	
McLeod, J P	do 6 " 25	150 00	
Robinson, Alex	do 12 " 25	300 00	
Walker, P	Services as Registrar 12 " 25	300 00	
			1,080 35
	Vote No. 252.—Collecting Archives.		
Scholefield, E O S	Services as Provincial Archivist expenses, $57; 12 months @ $25	357 00	
Cree, Mrs M	do in Archives Department 12 " 50	600 00	
Fergusson, Miss F J N	do " 12 " 50	600 00	
Fraser, J D	do " 12 " 95	1,140 00	
Clark Co, Arthur H	Kean (Charles), A.L.S. to W. E. Gladstone	18 00	
Croft, Henry	Picture of Yale, Fraser River, in early C.P.R. construction days	40 00	
Cunningham, J W	Carting and packing 4 shells of Seymour Battery	1 00	
Dart, W J	2 copies of Legislature, 1916, Foxall photos	2 00	
Fawcett, Edgar	Collecting portraits and views of pioneers and pioneer scenes, V.I.	10 50	
Fawcett, Edgar	Panoramic view of Victoria in 7 sections, original taken for Sir James Douglas	10 00	
Fleming, Edgar	Copies of photes, lantern-slides, etc.	307 18	
Gosnell, R E	Photographs and material dealing with construction of C.P.R. in British Columbia	50 00	
Henderson, D M	Album of early British Columbia scenes	25 00	
Hudson Book Co	Hall-Kelley school-book	50 00	
Kitson, Mrs L Douglas	Work for Archives Department by the late Mr. Arthur Kitson	16 98	
Langton, Mrs M P	3 photos of Legislative Hall	6 00	
	Carried forward	.....	8,738 84

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	8,738 84
	XIII.—MISCELLANEOUS.—*Continued.*		
	Provincial Secretary's Department.—*Continued.*		
	Vote No. 252.—Collecting Archives.—Concluded.		
Lowman & Hanford Co..	Historical material dealing with early history of Pacific North-west	107 50	
MacKenzie, G E	Moseley, notes by	2 70	
Maggs Bros	Engraving of Columbus and his map of the Western World, etc	10 30	
Martin, Hon Mr Justice.	British Colnmbia law notes, etc	100 00	
Mash, Miss J	Typed copies of letters sent by Arch'd Menzies to Sir Joseph Banks and others	2 45	
Mayes, Miss Winifred M.	Copying, comparing, etc., for Archives Department	182 63	
Maynard, Albert	Lantern-slides, large sheet, etc	67 55	
Murdoch, William	Photographs of British Columbia	30 00	
Museum Book Store	"Colonial Magazine," chart of the world, etc	128 30	
McCorquodale & Co, Ltd	Foolscap paper supplied to Miss W. Mayes	8 63	
Newcombe, C F, M D	Collecting historical information and services for 1 month @ $150	178 45	
Pearce, Miss Molly	Governor-General's (Marquis of Lansdowne) 1884 gold medal	45 00	
Portland Ry, Light & Power Co	Pages of log-book of ship "Columbia," Captain Greay, who explored this Coast in 1788-1792	55 20	
Rockwood, Miss E Ruth	Express charges	80	
Simonds, Mrs Cecil	Engraving of silver-point etching of H.M. Queen Alexandra	25 00	
Skeene Lowe Pho Studio	Enlarged photo of Mr McMicking	5 00	
Smith & Co, C H	Frames for portraits of historical characters	129 45	
Sommer & Sons, Ltd, Jos.	Framing pictures	9 10	
Stevens, Son & Stiles, H.	Collection of sailing instructions to Captain Burney from Admiral Lord Howe, 1782, etc	548 31	
Swannell, Mrs F C	Valuable historical manuscripts	43 00	
Tice, G S	Copying manuscript	3 43	
Williams, Clement	Collection of historical photographs, books, etc., of the late Dr. Fred'k Dally	1,067 00	
			5,983 46
	Vote No. 253.—Postage.		
Sundry persons	Postage and rent of boxes, Abbotsford	13 75	
do	do Agassiz	80	
do	do Alberni	645 00	
do	do Alert Bay	15 00	
do	do Alice Arm	1 00	
do	do Arrowhead	19 00	
do	do Ashcroft	330 00	
do	do Athalmer	7 00	
do	do Atlin	114 00	
do	do Barkerville	66 00	
do	do Beaverdell	3 00	
do	do Bear Creek	2 00	
do	do Bella Coola	4 00	
do	do Blue River	6 00	
do	do Britannia Beach	8 00	
do	do Bull River	10 00	
do	do Chase	14 00	
do	do Chilliwack	93 00	
do	do Clayoquot	3 00	
do	do Clinton	210 00	
do	do Coal Creek	11 00	
do	do Corbin	7 50	
do	do Courtenay	13 00	
do	do Cranbrook	557 48	
do	do Creston	26 75	
do	do Cumberland	308 91	
do	do Ducks	8 00	
do	do Duncan	207 00	
do	do Elko	17 00	
do	do Endako	8 00	
do	do Enderby	18 00	
do	do Fairview	311 84	
do	do Fernie	352 90	
do	do Field	15 00	
do	do Fort Fraser	102 00	
do	do Fort Steele	12 00	
do	do Fort St. John	28 25	
do	do Ganges	31 50	
do	do Golden	319 00	
do	do Granby Bay	31 00	
do	do Grand Forks	119 50	
do	do Greenwood	198 00	
do	do Hanceville	3 00	
do	do Hazelton	477 41	
do	do Hedley	9 50	
do	do Hope	45 00	
do	do Hosmer	16 00	
	Carried forward	.....	14,722 30

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		14,722 30
	XIII.—MISCELLANEOUS.—*Continued.*		
	Provincial Secretary's Department.—*Continued.*		
	Vote No. 253.—Postage.—Concluded.		
Sundry persons	Postage and rent of boxes, Hudson Hope	1 25	
do	do Jedway	20 00	
do	do Kamloops	1,679 68	
do	do Kaslo	299 00	
do	do Kelowna	15 50	
do	do Kimberley	1 00	
do	do Ladysmith	14 98	
do	do Lillooet	211 75	
do	do Lucerne	5 00	
do	do Lytton	28 00	
do	do Marysville	11 00	
do	do Masset	10 00	
do	do Merritt	41 05	
do	do Michel	18 00	
do	do Midway	15 50	
do	do Mission City	25 00	
do	do Mount Olie	10 00	
do	do Moyie	10 00	
do	do McBride	56 00	
do	do Nakusp	15 00	
do	do Nanaimo	490 50	
do	do Natal	19 50	
do	do Nelson	948 82	
do	do New Denver	95 00	
do	do New Hazelton	3 00	
do	do New Westminster	1,665 62	
do	do Nicola	145 00	
do	do North Bend	13 00	
do	do Notch Hill	7 00	
do	do Oakalla	56 00	
do	do 150-Mile House	128 00	
do	do Pender Harbour	2 00	
do	do Penticton	13 00	
do	do Phoenix	15 50	
do	do Port Essington	16 00	
do	do Porter's Landing	1 00	
do	do Pouce Coupe	8 00	
do	do Powell River	13 50	
do	do Prince Rupert	829 40	
do	do Princeton	134 15	
do	do Quathiaski Cove	13 50	
do	do Queen Charlotte City	57 50	
do	do Quesnel	988 22	
do	do Revelstoke	460 30	
do	do Rock Creek	6 00	
do	do Rossland	290 34	
do	do Salmo	26 50	
do	do Savona	12 50	
do	do Sheep Creek	4 50	
do	do Sicamous	9 00	
do	do Sidney	4 20	
do	do Silverton	12 50	
do	do Slocan City	7 19	
do	do Smithers	9 10	
do	do Spences Bridge	16 00	
do	do South Fort George	380 00	
do	do Squamish	9 00	
do	do Stewart	45 00	
do	do Telegraph Creek	20 00	
do	do Telkwa	12 50	
do	do Terrace	23 75	
do	do Trail	9 50	
do	do Trout Lake	38 00	
do	do Ucluelet	3 00	
do	do Vananda	7 00	
do	do Vancouver	3,619 72	
do	do Vanderhoof	22 00	
do	do Vernon	688 20	
do	do Victoria	14,441 40	
do	do Waldo	17 50	
do	do Wardner	12 00	
do	do Wilmer	38 00	
do	do Yale	45 95	
			33,260 66
	Carried forward		47,982 96

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	47,982 96
	XIII.—MISCELLANEOUS.—*Continued.*		
	Provincial Secretary's Department.—*Continued.*		
	Vote 254.—Provincial Board of Health (other than Salaries).		
Andrews, F W M D..	Medical inspection of schools, Upper Trout Creek	12 50	
do " ..	do Naramata	24 00	
Archibald, M G, " ..	do Fruitlands	25 00	
do " ..	do Kamloops	5 00	
do " ..	do Knutsford	11 00	
do " ..	do Trapp Lake	11 50	
do " ..	do Campbell's Creek	10 50	
do " ..	do Black Pines	13 00	
do " ..	do Mount Olie	29 00	
do " ..	do Clearwater	12 00	
do " ..	do Martin's Prairie	20 00	
do " ..	do Duck Range	7 50	
do " ..	do Louis Creek	21 00	
do " ..	do Chu Chua	16 50	
Arnott, C A, " ..	do Boundary Falls	8 28	
do " ..	do Deadwood	17 78	
do " ..	do Midway	15 56	
do " ..	do Bridesville	19 03	
do " ..	do Anarchist Mountain	30 56	
do " ..	do Ingram Mountain	12 03	
Asseltine, B " ..	do Lillooet	14 50	
do " ..	do Seton Lake	8 00	
do " ..	do Pachelqua	13 00	
do " ..	do Pavilion	17 00	
Auld, J W, " ..	do Field	12 00	
Baker, G R, " ..	do Quesnel	16 50	
do " ..	do Dragon Lake	13 50	
Bavis, W E, " ..	do Crows Nest	13 00	
do " ..	do Corbin	7 50	
Black, Donald, " ..	do McGuire	14 00	
do " ..	do Baynes Lake	7 50	
do " ..	do Waldo	29 50	
do " ..	do Elko	16 50	
do " ..	do Galloway	8 00	
do " ..	do Jaffray	22 00	
Borden, L E, " ..	do Taghum	9 00	
do " ..	do Crescent Valley	16 50	
do " ..	do South Slocan	15 00	
do " ..	do Belford	10 50	
do " ..	do Harrop	17 50	
do " ..	do Perry Siding	28 50	
do " ..	do Duhamel	11 50	
do " ..	do Koch Siding	20 00	
do " ..	do Hume	83 00	
do " ..	do Brilliant	27 00	
do " ..	do Thrums	22 00	
do " ..	do Shoreacres	16 00	
Broe, L, " ..	do Granby Bay	32 50	
Brouse, J E, " ..	do New Denver	35 50	
do " ..	do Silverton	28 50	
do " ..	do Standard Mine	14 00	
do " ..	do Slocan City	38 00	
Buchanan, Wm, " ..	do West bank	10 50	
do " ..	do Glenrosa	7 50	
Burke, Gordon, " ..	do Mill Creek	17 00	
do " ..	do Britannia Beach	41 00	
Burris & Archibald, " ..	do Sullivan Valley	15 50	
do " ..	do Heffley Lake	9 00	
do " ..	do Model Farm	6 00	
do " ..	do Barriere River	16 00	
do " ..	do Barriere Valley	9 50	
do " ..	do Grande Prairie	19 00	
Cairns, L L, " ..	do Copper City	6 50	
do " ..	do Kitsumgallum	13 00	
do " .	do Pacific	19 00	
Callanan, M, " ..	do Barkerville	6 00	
Calvert, W D, " ..	do Sooke	12 50	
do " ..	do Otter Point	6 50	
do " ..	do Jordan River	3 00	
do " ..	Auto-hire to Sooke, Otter Point, Jordan River	12 00	
do " ..	Medical inspection of schools, Sooke Harbour	5 00	
Christie, H A, " ..	do Seton Lake	9 00	
do " ..	do Pachelqua	9 00	
do " ..	do Lillooet	14 50	
do " ..	do Pavilion	16 00	
do " ..	do Ocean Falls	15 50	
Columbia Coast Mission.	do Malcolm Island	26 50	
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	XIII.—MISCELLANEOUS.—*Continued.*		
	Provincial Secretary's Department.—*Continued.*		
	Vote No. 254.—Provincial Board of Health (other than Salaries).—Continued.		
Columbia Coast Mission..	Medical inspection of schools, Alert Bay	9 00	
do ..	do Rock Bay	5 50	
do ..	do Granite Bay	4 50	
do ..	do Shoal Bay	8 00	
do ..	do Gillis Bay	4 50	
do ..	do Marshall	16 00	
do ..	do Vananda	25 00	
Connolly, A K, M D..	do Silver Creek	22 00	
do " ..	do Solsqua	19 00	
do " ..	do Sicamous	15 00	
do " ..	do Carlin Siding	15 00	
do " ..	do Tappen Valley	14 50	
do " ..	do Tappen Siding	7 00	
do " ..	do Sunnybrae	12 50	
do " ..	do North Shuswap	20 00	
Crompton, K E, " ..	do French Creek	12 30	
do " ..	do Montrose	6 10	
do " ..	do Nanoose Bay	10 00	
do " ..	do Parksville	16 00	
do " ..	do Qualicum	22 90	
do " ..	do Little Qualicum	14 30	
do " ..	do Hillier's	6 70	
do " ..	do Errington	9 50	
Cumming, Gordon, " ..	do Sidney	57 50	
do " ..	do North Saanich	27 00	
Dudley, Wm, " ..	do Mill Creek	16 00	
do " ..	do Tunnel Camp	9 50	
do " ..	do Britannia Beach	24 50	
Dykes, W, " ..	do Sahtlam	8 00	
do " ..	do Koksilah	8 50	
do " ..	do Glen	10 00	
Elliot, J C, " ..	do St. Elmo	9 00	
do " ..	do Concord	6 50	
do " ..	do Hope	19 50	
do " ..	do Hope Station	5 50	
do " ..	Mileage for various schools	30 00	
Elliott, R, " ..	Medical inspection of schools, Hedley	31 00	
do " ..	do Nickel Plate	10 00	
do " ..	do Keremeos	34 00	
Emerson, P J " ..	do Extension	44 50	
Ewert, C, " ..	do Fort George	31 25	
do " ..	do South Fort George	12 50	
do " ..	do Willow River	20 00	
Ewert, Paul, " ..	do Golden	66 50	
Feare, W K, " ..	do Chimney Creek	14 50	
do " ..	do William's Lake	18 50	
Fort, H R, " ..	do Savona	12 00	
do " ..	do Walhachin	5 50	
do " ..	do Lytton	11 00	
Fraser, A Ross, " ..	do Beaver Point	10 00	
do " ..	do Burgoyne	17 50	
do " ..	do Cranberry Marsh	8 50	
do " ..	do Galiano	10 00	
do " ..	do Isabella Point	9 50	
do " ..	do Vesuvius	9 00	
do " ..	do Mayne	12 50	
do " ..	do Pender Island	8 00	
do " ..	do Port Washington	5 50	
do " ..	do Divide	5 00	
do " ..	do Vesuvius North	10 00	
Gomm, Wm E, " ..	do Three Forks	18 00	
Grant, J F, " ..	do Metchosin	21 50	
do " ..	do Albert Head	51 50	
do " ..	do Rocky Point	15 00	
do " ..	do Happy Valley	18 50	
do " ..	do Highlands	12 50	
do " ..	do Goldstream	12 00	
do " ..	do Colwood	33 00	
Green, F W, " ..	do Wycliffe	12 00	
do " ..	do Wardner	27 00	
do " ..	do Moyie	27 50	
do " ..	do Fort Steele	29 00	
do " ..	do Loco	6 50	
do " ..	do Kimberley	16 50	
do " ..	do Wasa	16 50	
Harrison, E H, " ..	do Atlin	3 00	
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	Vote No. 254.—Provincial Board of Health (other than Salaries).—Continued.		
Harrison, E H, M D..	Medical inspection of schools, Discovery	7 00	
Henderson, Andrew, "	do Powell River	57 50	
Henderson, G B, " ..	do Erickson	13 50	
do " ..	do Canyon City	14 00	
do " ..	do Sirdar	15 50	
do " ..	do Huscroft	9 00	
do " ..	do Creston	55 00	
do " ..	do Boswell	12 50	
do " ..	do Wynndel	12 00	
do " ..	do Alice Siding	8 50	
Henderson, J C, " ..	do Cultus Lake	13 00	
Hoops, S E Mostyn, " ..	do Soda Creek	12 00	
do " ..	do Macalister	17 50	
do " ..	do Alexandria	12 00	
Hunter, J D, " ..	do Model, Victoria	36 50	
do " ..	do Bamberton	22 00	
Ingham, O G, " ..	do Departure Bay	7 50	
do " ..	do Nanaimo Bay	30 50	
do " ..	do Northfield	26 00	
do " ..	do East Cedar	4 50	
do " ..	do South Cedar	12 00	
do " ..	do North Cedar	21 50	
do " ..	do North Gabriola	4 50	
do " ..	do South Gabriola	4 00	
do " ..	do Harewood	118 50	
do " ..	Mileage for various schools	25 00	
do " ..	Examining 17 Teachers and 2 Janitors at various schools	9 50	
Inglis, F, " ..	Medical inspection of schools, Sechelt	24 50	
do " ..	do Roberts Creek	20 50	
do " ..	do Howe Sound	34 00	
do " ..	do Bowen Island	13 00	
do " ..	do Gambier	7 00	
Irving, R W, " ..	do Pemberton Range	15 00	
do " ..	do Campbell River	14 00	
do " ..	do Rose Hill	12 00	
do " ..	do Fish Lake	18 00	
Keith, H W, " ..	do Minto, Enderby	12 00	
do " ..	do Mara	15 00	
do " ..	do Grindrod	8 00	
do " ..	do Ashton	7 50	
do " ..	do Hupel	14 50	
do " ..	do Deep Creek	10 50	
Kelso, J H, " ..	do Fauquier	10 50	
do " ..	do Whatshan	18 50	
do " ..	do Fire Valley	13 00	
do " ..	do Needles	10 00	
do " ..	do Edgewood	7 50	
do " ..	do Renata	6 00	
do " ..	do Deer Park	9 00	
do " ..	do Robson	11 00	
do " ..	do Castlegar	14 50	
do " ..	do Syringa Creek	3 50	
do " ..	Motor-launch hire and hotel expenses *re* above schools	29 00	
Kingston, C M, " ..	Medical inspection of schools, Cascade	15 00	
do " ..	do Carson	10 50	
do " ..	do Hill Top	18 50	
do " ..	do Fife	18 00	
do " ..	do Christina Lake	13 50	
do " ..	do Gilpin	8 00	
do " ..	do North Kettle River	9 00	
Knox & Campbell, " ..	do Okanagan	18 00	
do " ..	do East Kelowna	14 00	
do " ..	do South Okanagan	15 50	
do " ..	do Mission Creek	20 50	
do " ..	do Woods Lake	25 00	
do " ..	do Ellison	19 00	
do " ..	do Okanagan Centre	17 00	
do " ..	do Rutland	41 50	
do " ..	do Glenmore	11 50	
Large, Richard W, " ..	do Metlakatla	21 50	
do " ..	do Port Simpson	14 00	
do " ..	do Port Essington	9 00	
do " ..	do Inverness	9 50	
do " ..	do Porcher Island	13 00	
Luton, W F, " ..	do North Oyster	17 00	
do " ..	do "	11 50	
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	Provincial Secretary's Department.—*Continued.*		
	Vote No. 254.—Provincial Board of Health (other than Salaries).—Continued.		
Luton, W F, M D..	Medical inspection of schools, Diamond Crossing	21 00	
Macpherson, J S, " ..	do East Arrow Park	19 50	
do " ..	do West Arrow Park	4 50	
do " ..	do Burtondale	25 00	
do " ..	do Mount Ingersoll	15 00	
do " ..	do Box Lake	13 00	
Meadows, H, " ..	do Denman Island	23 00	
do " ..	do Hornby	13 00	
do " ..	do Fanny Bay	13 50	
Montgomery, J E, " ..	do Comox	25 00	
do " ..	do Lazo	16 00	
do " ..	do Nob Hill	6 00	
do " ..	do Sandwick	17 50	
do " ..	do Headquarters	9 00	
do " ..	do Grantham	10 00	
Morgan, A D, " ..	do Gill	30 00	
do " ..	do Cherry Creek	20 50	
do " ..	do Kildonan	34 00	
do " ..	do Beaver Creek	5 00	
Morse, G, " ..	do Barston	4 50	
Maclean, Charles, " ..	do Ucluelet	6 50	
do " ..	do Stapleby	8 50	
do " ..	do Ucluelet East	5 50	
MacNaughton, G K, " ..	do Royston	12 00	
do " ..	do Bevan	33 50	
do " ..	do Minto	22 50	
do " ..	do Union Bay	30 50	
McCaffrey, D, " ..	do Killarney	10 00	
do " ..	do Coalmont	7 00	
do " ..	do Princeton	34 00	
do " ..	do East Princeton	11 50	
do " ..	do Copper Mountain	16 00	
McCaffrey, P S, " ..	do Yale	24 00	
do " ..	do Keefers	26 00	
McEwen, M D, " ..	do Hedley	29 00	
do " ..	do Nickel Plate	3 00	
McIntyre, W H, " ..	do South Wellington	64 50	
do " ..	do Chase River	33 00	
do " ..	do Brechin	33 00	
do " ..	do Wellington	27 00	
do " ..	do East Wellington	13 50	
McLean, E H S, " ..	do Albert Canyon	26 50	
do " ..	do Galena Bay	12 00	
do " ..	do Hall's Landing	17 50	
do " ..	do Arrowhead	16 50	
do " ..	do Beaton	14 50	
do " ..	do Craigellachie	28 00	
do " ..	do Malakwa	32 00	
do " ..	do Loft	27 50	
do " ..	do Three Valley	27 00	
do " ..	do Big Eddy	22 00	
do " ..	do Mount Begbie	14 00	
do " ..	do Mount Cartier	16 50	
McPherson, J S, " ..	do West Demars	11 50	
Nash, A C, " ..	do Lumby	26 50	
do " ..	do Mabel Lake	17 50	
do " ..	do Rising	4 00	
do " ..	do Cherry Creek	5 50	
do " ..	do Richlands	17 00	
do " ..	do Lumby	1 50	
do " ..	do Shuswap	9 00	
Newton, R G, " ..	do James Island	16 50	
Paul, M J, " ..	do Squamish	14 00	
do " ..	do Mashiter	17 50	
Petersky, S, " ..	do Clinton	18 50	
Price, Arthur G, " ..	do Cowichan	19 50	
do " ..	do Shawnigan	14 00	
do " ..	do Cobble Hill	10 00	
do " ..	do Malahat	17 00	
do " ..	do Bench	12 00	
do " ..	Special allowance for examination of pupils at Cowichan, Bench, and Shawnigan	50 00	
Read, George C, " ..	Medical inspection of schools, Ainsworth	17 50	
do " ..	do Crawford Bay	33 00	
do " ..	do Procter	26 00	
do " ..	do Balfour	13 00	
do " ..	do Mirror Lake	5 50	
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	XIII.—MISCELLANEOUS.—*Continued.*			
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Read, George C, M D..	Medical inspection of schools,	Shutty Bench	7 00	
Rhycard, W S, " ..	do	McBride	12 50	
Sanson, Geo, " ..	do	Cache Creek	9 50	
do " ..	do	Hat Creek	11 00	
do " ..	do	Ashcroft	32 00	
Scatchard, Walter, " ..	do	Chase	40 00	
do " ..	do	Shuswap	5 00	
do " ..	do	Notch Hill	24 50	
do " ..	do	Balmoral	10 00	
do " ..	do	Sorrento	12 50	
do " ..	do	Blind Bay	7 50	
do " ..	do	Turtle Valley	10 00	
Schon, J Edward, " ..	do	Kedleston	8 50	
Shaw, Wm F, " ..	do	Campbell River	18 50	
do " ..	do	Valdes Island	8 50	
do " ..	do	Heriot Bay	9 50	
Stone, W R, " ..	do	Endako	8 25	
do " ..	do	Stellaco	10 00	
do " ..	do	Engen	15 50	
do " ..	do	Nechako	10 50	
Stuart, Alex J, " ..	do	Nicomen	11 00	
do " ..	do	Dewdney	21 00	
do " ..	do	North Nicomen	12 00	
do " ..	do	Hatzic Prairie	10 00	
Sutherland, E M, " ..	do	Hagensborg	19 00	
do " ..	do	Lower Bella Coola	13 00	
do " ..	do	Mackenzie	8 50	
Swift, T A, " ..	do	Abbotsford	55 00	
Thom & Coghlin, " ..	do	Annable	11 00	
do " ..	do	Columbia Park	7 50	
do " ..	do	Nine-mile Creek	15 00	
do " ..	do	Park Siding	12 00	
do " ..	do	Fruitvale	24 00	
do " ..	do	Columbia Gardens	13 00	
do " ..	do	Blueberry	10 50	
Turnor, P W, " ..	do	Invermere	9 00	
do " ..	do	Athalmer	8 00	
do " ..	do	Wilmer	8 50	
do " ..	do	Brisco	22 00	
do " ..	do	Windermere	10 00	
Tuthill, G H, " ..	do	Lower Nicola	12 50	
do " ..	do	Canford	14 00	
do " ..	do	Nicola	13 50	
Van Kleek, P D, " ..	do	Falkland	16 00	
do " ..	do	Salmon River Valley	13 00	
do " ..	do	"	10 50	
Wightman, Robert, " ..	do	Cache Creek	5 50	
do " ..	do	Hat Creek	10 50	
do " ..	do	Savona	18 50	
do " ..	do	Walhachin	3 00	
do " ..	do	Ashcroft	28 00	
Williams, Gerald, " ..	do	Okanagan	17 50	
Workman, W, " ..	do	Coal Creek	71 50	
Wrinch, H C, " ..	do	Hazelton	13 50	
do " ..	do	New Hazelton	6 00	
Am Assn for Study and Prev of Infant Mort'y..	Subscription and dues		3 24	
American Hygiene Assn	do		3 00	
Am Journal of Nursing..	do		2 00	
Am Jour of Pub Health	do		8 25	
American Medical Assn..	do		6 50	
British Medical Journal.	do		8 39	
Cambridge Univ Press ..	do		4 41	
Can Nurse Magazine....	do		1 00	
Johns Hopkins Press ...	do		2 25	
King & Son, Ltd, P S ...	do		1 39	
Lancet, The	do		13 78	
Lewis & Co, Ltd, H K...	do		4 64	
Modern Hospital.....	do		3 00	
Moffat, Yard & Co	do		2 20	
MacLean Pub Co, Ltd...	do		2 00	
Nat Assn for Study and Prev of Tuberculosis..	do		5 00	
Oral Health	do		1 00	
Pub Health Nurse Quar.	do		1 00	
Royal Inst of Pub Health	do		10 05	
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	XIII.—MISCELLANEOUS.—*Continued.*			
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Society of Topical Medicine and Hygiene. ...	Subscription and dues		9 56	
State Dept of Health....	do		10 00	
Survey, The	do		3 75	
Timberman, The.....	do		25	
Giegerich, H	Provisions and utensils *re* outbreak of smallpox,	Ainsworth	41 71	
McLeod, Roderick.....	Destroying horse,	"	2 00	
Poole Drug Co, Ltd.....	Medical supplies *re* outbreak of smallpox,	"	36 60	
Morgan, A D, M D	Annual health report,	Alberni	5 00	
Hardiman, J H.....	Inspecting camps,	Avola	2 70	
Watson, G de B, M D..	Annual health report,	Burnaby	5 00	
Scatchard, W, " .	do	Chase	5 00	
Dixson, D S, " ..	do	Clayoquot Sound.....	5 00	
Botterill, M P	Livery-hire,	Clinton	10 00	
Elliot, M H	Auto-hire,	"	10 00	
Harmon, A T..... ...	Express on samples of water *re* investigation of complaint,	"	1 35	
Payne, C J.....	Sanitary examination,	"	10 00	
Petersky, S, M D.....	Annual health report,	"	5 00	
Pollard, John..... ...	Livery-hire,	"	7 50	
Prosper (Indian)	Services delivering letters,	"	2 50	
Robertson, S M, M D....	Examination of injured horse and destroying same,	Colwood	5 00	
Walker, William.....	Hauling and burying horse,	"	3 50	
Sutherland, G A, M D..	Annual health report,	Coquitlam.....	5 00	
Green, F W, " ..	do	Cranbrook.....	5 00	
do " ..	Inspection of camp and inoculation of men, Staple Lumber Co., *re* typhoid fever, Cranbrook.....		20 00	
Rondeau, Benjamin.....	Services as Attendant on smallpox patient, 23 days @ $3, Cranbrook.....		69 00	
St Eugene Hospital.....	35 days' attendance @ $2; bedding, $15; Attendant's board, $30, *re* smallpox case, Cranbrook.		115 00	
Henderson, G B, M D..	Investigation, pig sty, fumigation, and placarding house *re* typhoid fever, Creston		7 50	
do " ..	Releasing and supervising cleaning and placarding home	" "	4 00	
do " ..	Supervising fumigation and cleaning of house *re* tuberculosis,	"	3 00	
do " ..	Annual health report,	Creston	5 00	
do " ..	Placarding houses *re* measles,	"	5 00	
do " ..	do " and whooping-cough,	"	28 00	
Stanier, F T, " ..	Inspection and report on camps,	Cumberland.....	181 00	
Silvester, Pete.....	Removing horse,	Duck Creek.....	2 50	
Graham, E C.....	Hauling and burying horse,	Duck Lake Creek.....	2 50	
Duncan Garage, Ltd.....	Auto-hire, *re* Boys' Orphanage and Duncan Hospital,	Duncan	1 75	
Kelso, J E H, M D..	Annual health report,	Edgewood.....	5 00	
Keith, H W, " ..	do	Enderby	5 00	
Boak, E W, " ..	do	Esquimalt	5 00	
Anderson, J	Milk *re* measles case,	Fernie	2 55	
Cash Meat Market.....	Supplies "	"	1 50	
Duff, Mrs A	Services as Nurse, 20 days @ $3, washing and coal, *re* measles case, Fernie.....		64 50	
Duff, Mrs A	do 25 " 3, " and patient's board *re* scarlet fever, Fernie.		85 80	
Johnson, Fred.....	2 night-shirts for patient *re* measles case,	Fernie	3 00	
McLean's Drug & B Store	Fumigators and disinfectants *re* measles epidemic,	"	8 65	
Rizzuto Bros.....	Hauling and destroying condemned beef,	"	1 50	
Trites-Wood Co, Ld, The	Supplies furnished *re* measles case,	"	13 35	
Trites-Wood Co, Ld, The	Blankets, sheets, pillows, etc., *re* scarlet-fever case,	"	25 50	
Nicholson, C.....	Hauling carcass of dog to nuisance-ground,	Golden	50	
Kingston, C M, M D.....	Professional visits *re* measles,	Grand Forks.....	34 00	
Kingston, C M, M D.....	Annual health report,	"	5 00	
Mason, T G.....	Hire of saddle-horse, feed, and meals,	Grande Prairie.....	7 50	
Sutherland, E M, M D..	Visits *re* epidemic,	Hagensborg and Lower Bella Coola	26 00	
Creig, D.....	Return fare *re* quarantining measles,	Halfway	10 00	
Anderson, Jas	Services, burning garbage,	Hazelton	7 50	
Neal, William.....	do	"	7 50	
Pentz, Howard.....	do	"	5 62	
Stephenson & Crum.....	Signboards,	"	7 04	
Wrinch, H C, M D.....	Visit to school,	"	2 50	
Wrinch, H C, M D.....	Annual health report,	"	5 00	
Rizzuto Bros	Livery-hire *re* outbreak of measles,	Hosmer	6 00	
Emery, Daniel.....	do *re* cases of smallpox,	Huntingdon.....	2 00	
Dale, John.....	Removal and burial of horse,	Hupel	5 00	
Wood, Wm H, M D.....	Quarantining cases of measles,	Ioco	15 00	
Wood, Wm H, M D.....	Annual health report,	"	5 00	
Williams, Seymour.....	Burial of horse,	Kamloops.....	5 00	
Jenkins Co.	do	Kelowna	5 00	
Knox, W, M D.....	Annual health report,	"	5 00	
Burr, E E.....	Inspecting patients at houses,	Keremeos	15 00	
Elliot, Robert.	Placarding houses *re* outbreak of measles,	"	48 00	
Ardagh, V E R, M D....	Annual health report,	Kitwanga	5 00	
Corp City of Ladysmith.	Fumigator,	Ladysmith	4 00	
McBurney, A, M D..	Annual health report,	Langley	5 00	
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Asselstine, B, M D	Examining and quarantining various families *re* epidemic of measles,	Lillooet	46 00	
Spratt, Joe	Horse-hire,	Louis Creek	9 00	
Keith, H W, M D	Examinations *re* epidemic of measles,	Mara	62 00	
Port, R H, M D	Annual health report,	Matsqui	5 00	
Rankine, A F	Permanganate of potash and formalin *re* epidemic of measles,	Merritt	95	
Tuthill, G H, M D	Professional services, examining and quarantining *re* measles, chicken-pox, etc., $121.20; annual health report, $5;	Merritt	126 20	
Stuart, Alex J, "	Examination *re* Chinese quarter, $3; annual health report, $5;	Mission City	8 00	
Macpherson, J S, "	Supervision of quarantine, 30 days @ $5; service of Watchman, 27 days @ $2.50; *re* outbreak of diphtheria,	Nakusp	217 50	
Nakusp Co-op Society	Provisions supplied during quarantine for diphtheria,	"	32 55	
Natal Drug & B Store	Sulphur candles *re* case of measles,	Natal	25	
Borden, L E, M D	Professional services, fumigating, etc., and trips, *re* whooping-cough and scarlet fever,	Nelson	100 00	
Hudson's Bay Co	Towels *re* outbreak of smallpox,	"	2 10	
Nelson Transfer Co	Livery-hire *re* health,	"	5 00	
Poole Drug Co, Ltd	Prescriptions and fumigators *re* families,	"	3 25	
Mead, James	(Paid) Hire of saddle-horse and meal *re* whooping-cough,	New Hazelton	3 00	
McMullen, Irwin	Filling well,	"	5 00	
Annandale Supply Co	Groceries for S.S. "Langara" (inspection launch),	New Westminster	61 20	
B C Telephone Co, Ltd	Exchange service, 9 months @ $3.25, long-distance tolls,	"	30 60	
C P Telegraph Co	Telegrams,	"	62	
Hewitt Co, Ltd, Geo H	Rubber stamp, pad, and postage,	"	3 80	
Pac Marine Brokerage Co	Charter of power-boat for inspection departments,	"	1,138 75	
Thompson, Cowie & Stockwell	Groceries supplied launch "Langara,"	Nanaimo	8 75	
Tuthill, G H, M D	Professional services, examining and isolating *re* epidemic of measles,	Nicola	21 50	
Wyatt, H R	Return fare, assisting Medical Health Officer,	North Bend	75	
Bolliger, Conrad	Burying horse,	North Fork, Kettle River	5 00	
Stanfield, Geo	Livery-hire, feed, and 1 meal *re* disposal of horse,	" "	5 50	
McCarley, R V, M D	Annual health report,	North Vancouver	5 00	
Buchanan, W, "	do	Peachland	5 00	
Blackwood, B, "	do	Point Grey	5 00	
Wood, W H, "	do	Port Moody-Ioco	5 00	
Large, R W, "	do	Port Simpson	5 00	
Cade, J P, "	do	Prince Rupert	5 00	
Lombard, Charles E	Services as Nurse, 3 days @ $3, *re* case of measles,	Princeton	9 00	
McCaffrey, D, M D	Placarding various houses, annual health report, $5,	"	62 00	
Madigan, James	Launch-hire,	Quatsino Sound	22 50	
McLean, E H S, M D	Examining children and homes *re* epidemic of tonsilitis,	Revelstoke	30 00	
Hepworth, W, "	Annual health report,	Richmond	5 00	
Wood, William H, "	Professional services, investigating epidemic of measles, $25; livery-hire, $12;	Rock Creek	37 00	
Elliot, J C, "	Auto-hire,	Rosedale	5 00	
Holmes, C Denton, "	Annual health report,	Saanich	5 00	
Tidey, S, "	Inspection of drainage and latrines, $10; annual health report, $5;	Sidney	15 00	
Pay-list	Clearing ditch,	Sidney	49 50	
Henderson, G B	Investigation of cases of chicken-pox and fumigation *re* tuberculosis,	Sirdar	19 00	
Mead, James	(Paid) Hire of saddle-horse, feed, and 1 meal *re* measles,	Skeena Crossing	3 50	
Brouse, J E, M D	Professional services, inspecting children *re* smallpox,	Slocan City	15 00	
Borden & Vigneux	Attendance on family and disinfecting *re* scarlet fever,	Slocan Junction	40 00	
Johnston, John F	Fare, return, *re* scarlet fever.	"	85	
Geo Little Lumber Yard	Lime ard cartage,	Smithers	4 90	
Maclean, C G G, M D	Annual health report,	"	5 00	
Calvert, W D, "	Professional services, inspecting logging-camp, $10; annual health report, $5;	Sooke	15 00	
Price, A G, "	Annual health report,	South Cowichan	5 00	
Brady, T	Services as Watchman, 18 days @ $2.50, *re* measles,	South Fort George	45 00	
Brewster, Mrs D A	Scavenger-work,	"	1 00	
Ewert, C, M D	Professional visits *re* measles,	"	22 50	
Johnston, F J	Scavenger-work and destroying dogs,	"	20 00	
Peterson, Mrs	Scavenger-work,	"	1 00	
Sayden, Peter	Burying-dog,	"	1 00	
Shearston, Frank	Services as Watchman, 18 days @ $2.50,	"	45 00	
Footman, Larry	Cleaning outhouse,	Stewart	1 00	
Andrew, F W, M D	Annual health report,	Summerland	5 00	
Darcy, E	1 return fare *re* measles,	Texas Creek	6 00	
MacLean, Alex D	Livery-hire and fare and return *re* measles,	31-Mile Post	4 50	
Biker, W J E	Expenses *re* water and sewerage systems,	Trail	6 25	
Coghlin, W A, M D	Annual health report,	"	5 00	
Consolidated Mining & Smelting Co, Ltd	Labour, repairing building for pest-house and inmates' board,	"	121 79	
Johnston, John F	Fare, return, *re* scarlet fever,	"	1 00	
Thom, J Bain, M D	Placarding houses *re* measles, typhoid fever, and whooping-cough, annual health report,	Trail	46 00	
Warren, F W	Salary as District Registrar of Births, Deaths, and Marriages, 12 mos. @ $10,	Trail	120 00	
Irving & Murphy	Professional services, inspecting and report *re* King Edward Sanatorium,	Tranquille	65 00	
	Carried forward		.....	47,982 96

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward		47,982 96
	XIII.—MISCELLANEOUS.—*Continued.*		
	Provincial Secretary's Department.—*Continued.*		
	***Vote No. 254.—Provincial Board of Health (other than Salaries).*—Concluded.**		
Nelson, Angus	Hire of saddle-horse *re* investigating sanitary conditions, Tranquille	9 00	
Alberni Trading Stores	Cheese-cloth, Ucluelet	7 20	
Dom Govt Tel Service	Telegrams, "	3 30	
Miles, V	Services as Nurse, 5 weeks 1 day @ $30, livery-hire, *re* diphtheria cases, Ucluelet	156 50	
Morgan, A D, M D	Three trips, *re* diphtheria quarantine, Ucluelet	150 00	
Pineo, C M	Medical supplies " "	32 69	
Stone, W J	Launch-hire " "	45 15	
London Grocery Co, Ltd	Groceries supplied to inspection launch, Vancouver	38 80	
Mitchell, E A	Jey's fluid, Vanderhoof	50	
Neil & Cryderman	Livery-hire, Vernon	2 00	
Bohart, S H	Hauling and burying horse, Wardner	5 00	
Campbell, James	Special ferry trip *re* report of smallpox, Westbank	2 50	
Urquhart, J C	Livery-hire, etc., *re* report of smallpox, refuse in creek, "	10 50	
Turnor, P, M D	Annual health report, Windermere	5 00	
Burns, Wm	First-aid books, etc., Victoria	54 00	
Burroughs Add Mach Co	Adding-machine (one-half of cost), "	146 25	
Calwell, H	Freight, "	2 05	
Canadian Express Co	Expressage, "	4 40	
C P R Telegraph Co	Telegrams, "	57 21	
Chandler & Fisher	Tongue-depressors, "	4 50	
Denker, J P	B.C. survey plat, "	6 50	
Dominion Express Co	Expressage, "	18 03	
Dom Govt Tel Service	Telegrams, "	11 22	
Grant, James F, M D	Written opinion *re* isolation, $5; professional services *re* leper, scarlet fever, etc., $32.50; Victoria	37 50	
G N Telegraph Co	Telegrams, Victoria	11 16	
Hall, W B	Motor-hire *re* outbreak of typhoid, "	15 00	
Holmes, C Denton, M D	Written opinion *re* Isolation Hospital at Nelson, "	5 00	
Imperial Oil Co, Ltd	Gasolene, distillate, oil, etc., "	116 36	
Macey Office Equip Co	Top and section cabinet, "	8 80	
Mainwaring, H D	Auto-hire *re* disposal of horse, "	2 50	
Mitchell, Arthur K	Examination, reports, expenses, etc., *re* sewerage system, "	453 40	
Parke-Davis Co	Antitoxin, vaccine, etc., "	198 71	
Rel Messenger Service	Trip to Jubilee Hospital, "	50	
Underhill, F T, M D	Written opinion *re* Infectious Hospital at Nelson, "	5 00	
Vance, John F C B	Analysis of samples of water, "	52 45	
Van General Hospital	Examination of sputum, etc., "	8 00	
Victoria Gas Co, Ltd	Gas and meter-rent, "	3 92	
Victoria Transfer Co	Expressage, "	25	
Walker, R Eden, M D	Written opinion *re* Infectious Hospital at Nelson, "	5 00	
West Disinfecting Co	Fumigators, disinfectants, etc., "	201 95	
B Wilson Co, Ltd, The	Ice, "	25 50	
Avison, Henry	Sanitory Inspector, South Fort George, expenses	357 65	
De Grey, F S	Travelling expenses	636 55	
Locke, N	do	139 14	
Miller, Munroe	do	28 05	
Oliver, George	Sanitory Inspector, South Fort George 67 days @ $3; expenses, $187.70	388 70	
Young, H E, Dr	Travelling expenses	282 20	
			13,822 97
	Vote No. 255.—Premiums on Guarantee Bonds.		
Dom of Can Guarantee & Accident Ins Co	Premium on sundry bonds	285 00	
Emp Liability Assurance Corporation, Ltd	do	339 50	
Imp Guar & Accident Ins Co of Canada	do	92 00	
London Guarantee & Accident Co, Ltd	do	434 00	
London & Lancashire Guar & Accident Co	do	106 00	
			1,256 50
	Vote No. 256.—Royal Commissions.		
	ROYAL COMMISSION ON INDIAN AFFAIRS.		
White, N W	Chairman, services, $ 2,500; L.A., $1,000.00— $3,500.00		
Carmichael, J S	Commissioner, " 1,980; " 990.00— 2,970.00		
Shaw, J P	do " 1,820; " 910.00— 2,730.00		
McKenna, J A J	do " 999.99; " 910.00— 1,909.99		
Macdowall, W H	do " 1,820; " 910.00— 2,730.00		
do	Allowance for services between 4th July, 1916, and 3rd February, 1917, completing report and proof-reading, $1,335; expenses, $9.55— 1,344.55		
Gibbons, C H	Secretary, petty-cash disbursements, $478.37; 6 months @ $450.00— 3,178.37		
Green, A H	Technical Officer, " " 6 ; 8 " 300.00— 2,406.00		
	Carried forward		63,062 43

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	63,062 43
	XIII.—MISCELLANEOUS.—*Continued.*		
	Provincial Secretary's Department.—*Continued.*		
	Vote No. 256.—Royal Commissions.—Concluded.		
	ROYAL COMMISSION ON INDIAN AFFAIRS.—*Concluded.*		
McArthur, J S	Clerk and Stenographer, 2 months @ $150.00—$ 300.00		
Freel, J E	Clerk, 6 days — 10.00		
Morley, H S	do 14 " — 35.00		
Maysmith, A	Stenographer, overtime, $17.05; 214 days @ $2; 1 month @ $80.00— 525.05		
Peddle, A M	do 294½ hours .30— 88.35		
Peddle, Alice	Proof-reading, etc., 17 " .30— 5.10		
Peacocke, L E	do 19½ " .30— 5.85		
Porritt, A	Stenographer, overtime, $5.10; 129 days 2.00— 263.10		
McKinnon, A P	do 6 " 2.00— 12.00		
Acme Press, Ltd	Printing	11,623.76	
B C Telephone Co, Ltd	Exchange service	36.65	
Cameron & Calwell	Cartage	3.00	
Canadian Pacific Ry Co	Telegrams, $25.84; transportation, $305.04	330.88	
Colonist Ptg & Pub Co	Maps, half-tones, etc.	1,600.93	
Cross & Co	Rent, $1,437.50; electric heater, $8	1,445.50	
Electric B Print & Map Co	Tracings and blue-prints	173.05	
Fleming, H	Photographs	2.88	
King's Printer	Stationery	654.52	
Melrose Co, Ltd	Lettering door	1.25	
McDowell, H P	Rubber stamps	3.75	
McTavish & Spencer	Table-lamp and repairs	6.25	
Price & Cousins	Locks	11.60	
Savannah, J	Enlargements and negatives	6.15	
Short, Hill & Duncan, Ld	Care of clock and repairs	7.50	
Smith, Davidson & Wright, Ltd	Wrapping and twine	2.80	
Sweeney-McConnell, Ltd	Rubber stamps and ink	5.00	
United Typewriter Co, Ld	Rent of typewriter, carbons, paper, etc.	51.48	
Vic Book & Stationery Co	Stationery	121.35	
Victoria Pioneer Towel Delivery	Towel-supply	6.25	
Victoria Transfer Co	Cartage	5.25	
	Total expenditure to March 31st, 1917	$38,113.16	
	Proportion payable by the Province of British Columbia	19,056 59	
	VANCOUVER ISLAND STRIKE RIOTS COMMISSION.		
Gregory, Hon Mr Justice	Commissioner ..... services, $1,500.00; expenses, $158.75	1,658 75	
Herchmer, H W	Services as Counsel ..... 41½ days @ 25.00; " 109.95	1,147 45	
Langley, H	do Secretary ..... 5 mos. 14 d. 175.00; " 201.32	1,155 34	
Hastings, H	do Interpreter ..... 28 days 6.50; " 47.70	229 70	
B C Telephone Co, Ltd	Long-distance calls	1 05	
City Taxi Cab Co	Auto-hire, etc.	12 00	
Fox, J	Hotel bill *re* Hastings	12 00	
Gold, G	Witness fee	2 00	
Gould, I	Hire of hall	15 00	
Le Clercq, L	Stenographer	20 50	
Mainwaring, A E	Witness fee	8 00	
Nanaimo Daily Herald	Advertising	17 50	
Nanaimo Free Press	do	15 05	
Roedding, S	Witness fee	10 00	
Saville, M E	Stenographer	15 75	
Thompson, E	do	20 25	
Waugh, E	do	10 35	
Weeks, T	Auto-hire	20 00	
	Total, $4,370.69		
	SETTLERS' RIGHTS COMMISSION.		
Herchmer, H W	Services as Counsel ..... 6½ days @ $25.00; expenses, $5.50	168 00	
Cowichan Leader	Advertising	2 16	
Nanaimo Daily Herald	do	34 65	
Nanaimo Free Press	do	30 80	
News-Advertiser	do	12 00	
	Total, $247.61		
	Re POINT GREY AUCTION SALE.		
Harris, R W	Services as Commissioner ..... 33 days @ $50.00; disbursements, $52.44	1,702 44	
Evans, F	do Stenographer, transcripts of evidence, etc.	213 90	
	Total, $1,916.34		25,591 23
	Carried forward	.....	88,653 66

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward	.....	88,653 66
	XIII.—MISCELLANEOUS.—*Continued.*		
	Provincial Secretary's Department.—*Continued.*		
	Vote No. 257.—Stationery.		
Barber-Ellis, Ltd.	Miscellaneous, for all departments and offices	4,569 62	
Barker Co, G W.	do "	12 35	
Belyea & Co, Ltd.	do "	3 00	
Bennett, A S.	do "	65	
B C Saddlery Co, Ltd.	do "	42 90	
Brown Bros, Ltd.	do "	742 72	
Brown, Arthur C	do "	75 00	
Buntin Gillies & Co, Ltd.	do "	199 51	
Burroughs Adding Machine Co	do "	175 25	
Burr, W R.	do "	1 00	
Canada Drug & Book Co.	do "	2 00	
Canada Parliamentary Guide	do "	4 00	
Carswell Co, Ltd, The	do "	4 15	
Carter, C H F	do "	7 00	
Carter Electric Co	do "	29 50	
City Drug & Stat Co	do "	5 75	
Clarke & Stuart Co, Ltd	do "	1,408 76	
Clayton, Geo L	do "	1 50	
Colonial Trust Co.	do "	110 00	
Colonist Ptg & Pub Co.	do "	121 60	
Columbia Paper Co	do "	3,858 55	
Copp-Clark Co, Ltd	do "	35 00	
Copeland-Chatterson Co.	do "	131 50	
Dennison Manufg Co.	do "	133 73	
Dept of Indian Affairs.	do "	94 80	
Diamond Machine Co.	do "	10 75	
Dom Govt Publications.	do "	5 00	
Dominion Express Co.	do "	95	
Eddy Co, Ltd, E B.	do "	132 97	
Elec Blue Print & Map Co	do "	1,889 20	
Flathead Trading Co.	do "	10	
Fraser & Co, Geo A	do "	1 25	
Fraser, Robert	do "	1 00	
Gage & Co, W J.	do "	253 63	
Henderson Directory Co	do "	80 00	
Hewitt & Co, Ld, Geo H	do "	141 95	
Hibben & Co, T N.	do "	817 35	
Hickman-Tye Hdwre Co.	do "	80	
Hope Transfer Co.	do "	25	
Houghton & Evans.	do "	61 29	
Hoskin, E A.	do "	50	
Hudson's Bay Co.	do "	1 90	
Huggins, H.	do "	2 00	
Imperial Oil Co.	do "	8 75	
Inland Express Co	do "	65	
Jobe, Leo E.	do "	171 00	
Kay, E P	do "	9 00	
King's Printer (Winnipeg)	do "	1 75	
Legett, Samuel J.	do "	5 00	
Le Page, J H	do "	5 50	
Leverton, George	do "	7 65	
Lodwick, R E.	do "	25 85	
Lucas, John	do "	25 59	
Macey Office Equip Co	do "	4,343 94	
Madigan, George O.	do "	50	
Mahoney, J.	do "	50	
Maynard, James.	do "	2 50	
Menzies & Co	do "	488 53	
Mitchell Bros.	do "	6 96	
Moss, Chas H.	do "	1 10	
McCready, W.	do "	4 00	
McCulloch & Mitchell.	do "	36 25	
McDowell, H P	do "	740 15	
McInnis, F D	do "	32 25	
McLean, John A	do "	3 70	
McQuade & Son, Ld, P.	do "	9 80	
McRae Bros, Ltd.	do "	1 30	
McTavish Bros.	do "	3 75	
Nat Drug & Chemical Co	do "	12 50	
Natal Drug & Book Store	do "	1 00	
News-Advertiser, The	do "	7 75	
Office Specialty Co.	do "	491 57	
Page & Co, Ltd, W J.	do "	9 94	
Peck, John	do "	50	
Pottenger, A B	do "	2 00	
	Carried forward	.....	88,653 66

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	88,653 66
	XIII.—MISCELLANEOUS.—*Continued.*		
	Provincial Secretary's Department.—*Continued.*		
	Vote No. 257.—Stationery.—Concluded.		
Price & Cousins	Miscellaneous, for all departments and offices	35	
Remington Typewr'tr Co	do "	635 72	
Shipman's Sons, Asa L	do "	56 57	
Smith, Arthur G	do "	15 25	
Smith Co, Ltd, The T H	do "	1 20	
Smith, Davidson & Wright	do "	1,864 91	
Speck, Geo	do "	1 00	
Spencer, Ltd, David	do "	13 50	
Stewart, John	do "	3 00	
Stone, T G	do "	7 00	
Sweeney-McConnell, Ld	do "	164 60	
Thomson Stationery Co	do "	352 74	
United Typewriter Co, Ld	do "	3,050 99	
Victoria Book & Stat Co	do "	1,749 75	
Victoria Furniture Co	do "	2 65	
Victoria Ptg & Pub Co	do "	137 82	
Vic Typewriter Exchange	do "	28 75	
Walker, R A	do "	2 60	
Wallace, J H	do "	2 00	
Warwick Bros & Rutter	do "	150 56	
Weiler Bros	do "	2 00	
Western Specialty Co	do "	445 71	
Wiley & Sons, Inc, John	do "	4 00	
Wilmot, H F	do "	1 50	
Wilson, W & J	do "	6 00	
			30,332 13
	Vote No. 258.—Subscriptions to Newspapers and Periodicals.		
American City, The	Subscription, Attorney-General's Department	3 50	
Am Forestry Assoc'n	do Lands Department	3 25	
Bella Coola Courier	do Mines "	1 00	
do	do Lands "	2 00	
do	do Provincial Secretary's Department	1 00	
do	do Attorney-General's Department	1 00	
Best Insurance News	do Insurance Department	30 00	
B C Federationist	do Agent-General, London	2 00	
do	do Inspector of Factories	2 00	
do	do Mines Department	1 50	
B C Financial Times	do Attorney-General's Department	2 00	
Canada Gazette	do Public Works "	40	
Can Electrical News	do " "	6 00	
Canadian Engineer	do " "	3 00	
Canadian Farm	do Provincial Secretary's "	1 00	
Canadian Mining Journal	do Inspector of Mines "	2 00	
Can Municipal Record	do Attorney-General's "	3 00	
Can Ry & Marine World	do Railways "	2 00	
Car Builders' Directory	do " "	6 00	
Cariboo Observer	do Agent-General, London	2 00	
Chilliwack Progress	do Inspector of Dykes	1 00	
Coal Age	do " Mines	16 00	
Coast Review	do Insurance Department	3 00	
British Columbian	do Mines "	5 00	
do	do Agent-General, London	5 00	
do	do Attorney-General's Department	5 00	
Cowichan Leader	do Mines Department	1 50	
Creston Review	do Provincial Secretary's Department	2 00	
do	do Agent-General, London	2 00	
do	do Mines Department	2 00	
Dominion Publications	do Railways "	6 00	
Elec Engineers' Diary	do Public Works Department	1 14	
Electric Railway Journal	do Railways "	4 50	
Engineering Magazine	do Public Works "	3 50	
Engineering Magazine	do Railways "	3 50	
Engineering News	do " "	7 00	
Engineering Record	do Inspector of Mines	3 05	
Engineering Record	do Railways Department	6 50	
Financial Post	do Inspector of Municipalities	3 00	
Golden Star	do Mines Department	2 00	
Grand Forks Gazette	do Provincial Secretary's Department	2 00	
Grand Forks Gazette	do Mines "	2 00	
Grand Forks Sun	do " "	1 00	
Grand Forks Sun	do Provincial Secretary's "	1 00	
Hedley Gazette	do Mines "	2 00	
Inland Printer	do Printing "	3 00	
	Carried forward	.....	118,985 79

TO WHOM PAID.		FOR WHAT SERVICE.	$ cts.	$ cts.
		Brought forward		118,985 79
		XIII.—MISCELLANEOUS.—*Continued.*		
		Provincial Secretary's Department.—*Continued.*		
		Vote No. 258.—Subscriptions to Newspapers and Periodicals.—Continued.		
Islander, The	Subscription,	Mines Department	1 50	
Kamloops Standard	do	Provincial Secretary's "	3 00	
do	do	Agent-General, London	3 00	
do	do	Lands Department	3 00	
Kam Standard Sentinel	do	" "	50	
do	do	Finance "	3 25	
do	do	Treasury "	25	
do	do	Premier's Office	25	
do	do	Mines Department	1 00	
Kootenaian, The	do	" "	2 00	
Kootenaian, The	do	Government Agent, Kaslo	1 75	
Ledge, The	do	" Greenwood	2 00	
do	do	Mines Department	2 00	
do	do	Provincial Secretary's "	2 00	
Lillooet Prospector	do	Mines "	2 00	
Mining, Engineering & Electrical Record	do	Railways "	3 00	
do	do	Attorney-General's "	3 00	
do	do	Inspector of Mines	3 00	
Mining & Scientific Press	do	" "	5 00	
Mining & Scien' Journal	do	" "	4 00	
Monetary Times	do	" Trust Companies	3 00	
do	do	" Municipalities	3 00	
do	do	Finance Department	3 00	
Moving Picture World	do	Censor of Moving Pictures	3 50	
Nelson Daily News	do	Mines Department	5 00	
Nelson Daily News	do	Government Agent, Kaslo	1 50	
Nanaimo Daily Herald	do	Mines Department	5 00	
Nat Municipal League	do	Attorney-General's "	5 00	
Omineca Herald	do	Provincial Secretary's "	4 00	
Omineca Herald	do	Agent-General, London	6 00	
Ottawa Free Press	do	Premier's Office	2 00	
Pacific Banker	do	Inspector of Trust Companies	3 00	
Port Alberni News	do	Government Agent, Alberni	4 00	
Prince Rupert Empire	do	Provincial Secretary's Department	10 00	
Prince Rupert Empire	do	Mines "	6 00	
Printer and Publisher	do	Printing "	1 00	
Railway Age Gazette	do	Railways "	6 00	
Ry & Locomotive Eng	do	" "	4 00	
Railway Signal Engineer	do	" "	1 00	
Revelstoke Review	do	Mines "	5 00	
do	do	Public Works "	3 00	
do	do	Attorney-General's "	3 00	
Saturday Night	do	Inspector of Trust Companies	3 00	
Scientific American & Supplement	do	Railways Department	8 25	
Scientific American	do	Public Works "	3 75	
Sidney & Islands Review	do	Provincial Secretary's "	1 50	
Sidney & Islands Review	do	Agent-General, London	1 50	
Similkameen Star	do	Mines Department	2 00	
Spectator, The	do	Superintendent of Insurance	4 00	
Trail News	do	Mines Department	2 00	
Tramway & Ry World	do	Railways "	7 20	
Trust Comp' Magazine	do	Inspector of Trust Companies	3 00	
Van Daily Province	do	Provincial Secretary's Department	7 00	
do	do	Mines "	3 00	
do	do	Attorney-General's "	3 00	
do	do	Finance "	3 00	
do	do	Board of Health "	3 00	
Van News-Advertiser	do	Lands "	3 00	
Vancouver Standard	do	Mines "	2 00	
do	do	Provincial Secretary's "	2 00	
do	do	Attorney-General's "	2 00	
Vancouver Sun	do	Premier's Office	6 50	
do	do	Attorney-General's Department	7 25	
do	do	Lands "	12 50	
do	do	Provincial Secretary's "	6 50	
do	do	Mines "	13 50	
do	do	Finance "	3 00	
Vernon News	do	Mines "	2 00	
Victoria Daily Colonist	do	Premier's Office	12 00	
do	do	Agent-General, London	60 00	
do	do	Mines Department	12 00	
do	do	Agriculture "	6 00	
do	do	Provincial Secretary's "	6 00	
do	do	Public Works "	6 00	
		Carried forward		118,985 79

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		118,985 79
	XIII.—MISCELLANEOUS.—*Continued.*		
	Provincial Secretary's Department.—*Continued.*		
	Vote No. 258.—Subscriptions to Newspapers and Periodicals.—Concluded.		
Victoria Daily Colonist	Subscription, Births, Deaths, and Marriages Department	90	
do	do Audit Office	6 00	
Victoria Daily Times	do Finance Department	6 00	
do	do Attorney-General's Department	6 00	
do	do Mines Department	9 00	
do	do Agent-General, London	3 00	
do	do Premier's Office	6 00	
do	do Provincial Secretary's Department	2 90	
do	do Agricultural Department	5 00	
Western Can Motorist	do Provincial Assessor and Collector	4 50	
			567 59
	Vote No. 259.—Superannuation.		
Beatty, Margaret	Superannuation allowance, 12 months @ $ 20	240 00	
Blake, C H F	do 12 " 25	300 00	
Corrigan, Mrs E J	do 12 " 25	300 00	
Edwards, J	do 12 " 25	300 00	
Green, S B	do 12 " 30	360 00	
Hopkins, Jno D	do 12 " 30	360 00	
Brown, A G	do 12 " 35	420 00	
Mason, J H	do 12 " 35	420 00	
Murphy, Patrick	do 12 " 35	420 00	
Strang, John	do 12 " 35	420 00	
Parsons, Mark	do 12 " 40	480 00	
Costerton, C E	do 12 " 40	480 00	
Cunningham, Geo	do 10 " 40	400 00	
House, W T L	do 12 " 40	480 00	
Phipps, S	do 12 " 40	480 00	
McAlman, J A	do 7 " 40	280 00	
Thomas, A	do 3 " 45	135 00	
Dodd, W	do 12 " 50	600 00	
Wolfenden, Mrs R	do 12 " 55	660 00	
Aikman, G W	do 12 " 60	720 00	
Stevenson, A	do 12 " 60	720 00	
Carney, A	do 12 " 62.50	750 00	
Boulton, F C	do 12 " 65	780 00	
Holt, C E	do 12 " 65	780 00	
Murray, G	do 12 " 65	780 00	
Simon, Geo	do 12 " 65	780 00	
Thompson, G	do 12 " 70	840 00	
Chipman, E E	do 12 " 70	840 00	
Mutter, J M	do 12 " 70	840 00	
Brymner, J G	do 12 " 70	840 00	
Anderson, J R	do 12 " 75	900 00	
Worsfold, J K	do 10 " 75	750 00	
Vicars, John	do 12 " 75	900 00	
Sprott, J H	do 12 " 75	900 00	
Morgan, Thomas	do 12 " 75	900 00	
Nelson, A C	do 12 " 75	900 00	
Burr, Joseph	do 12 " 75	900 00	
Gordon, W	do 12 " 80	960 00	
Porter, J	do 12 " 80	960 00	
Wooldridge, T E	do 12 " 80	960 00	
Bate, Mark	do 12 " 90	1,080 00	
Stephenson, D	do 5 " 90	450 00	
Gore, W S	do 12 " 100	1,200 00	
McKay, E B	do 12 " 100	1,200 00	
McLeod, J P	do 4 " 100	400 00	
Anderson, J A	do 12 " 105	1,260 00	
Phair, C	do 11½ " 113	1,299 50	
Smith, J McB	do 12 " 120	1,440 00	
			33,564 50
	Vote No. 260.—Grant to B.C. Regiments.		
Scharschmidt, Capt P F	Grant in aid of staff, Vancouver Co., Pioneer Reinforcements	125 00	
Roaf, Major J Richardson	do No. 4 Tunnelling Company	125 00	
Officer Commanding	do 225th Battalion	500 00	
			750 00
	Vote No. 261.—Grant to City of Phoenix.		
City of Phœnix	Grant for fiscal year 1916-17		4,000 00
	Carried forward		157,867 88

TO WHOM PAID	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		157,867 88
	XIII.—MISCELLANEOUS.—*Continued.*		
	Provincial Secretary's Department.—*Concluded.*		
	Vote No. 262.—Grant to City of Rossland.		
City of Rossland	Grant for fiscal year 1916-17		12,000 00
	Vote No. 264.—Grant in Aid of Kitimat Mail Service.		
Union S S Co of B C	Mail service from Hartley Bay to Kitimat for year ending 31st March, 1917		300 00
	Vote No. 265.—Grant to Governors of the University of British Columbia (conditional).		
Chancellor of Univ of B C	Grant to Governors of the University of British Columbia (conditional)		200,000 00
	Vote No. 266.—Grant to Canadian Patriotic Fund (Provincial Branch).		
Can Patriotic Fund	Grant to Canadian Patriotic Fund (Provincial Branch)		6,000 00
	Vote No. 267.—Grant to Boy Scouts (Province).		
Heneage, Rev & Hon T R	Grant to Boy Scouts (Province)		1,000 00
	Vote No. 268.—Grant to Victorian Order of Nurses (Province).		
Vic Order of Nurses	Grant to Victorian Order of Nurses		500 00
	Vote No. 269.—Grant to Returned Soldiers' Aid Commission.		
B C Telephone Co	Long-distance calls	36 05	
C P R Telegraph Co	Telegrams	107 46	
Dom Govt Teleg'h Service	do	3 26	
Great Norwest Teleg'h Co	do	20 90	
Hayes, Miss Olive	Stenographic assistance	4 00	
Hibben & Co, T N	Medical Dictionary	1 75	
Mail Printing Co	Subscription	2 50	
Montreal Daily Star	do	2 00	
Reliable Mes'engr Service	Messenger service	50	
Van Daily Province	Subscription	4 00	
Victoria Daily Times	do and 22 copies	3 55	
Victoria Daily Colonist	do	12 00	
World, Ltd, The	12 copies	50	
Waites & Knapton	Repairs to letter-case	90	
Hill, James H	Secretary ..... expenses, $9.55; 12 months @ $100	1,209 55	
Erskine, M A	Stenographer ..... 2 months @ $45; 10 " 60	690 00	
McKinnon Miss M	do ..... 3 " 45	135 00	
Pemberton, Miss M	do ..... 5 days @ $2.50; 12 days @ $2; 3 " 9 d. 45	183 07	
Pendray, Mrs E G	do 1 day	2 50	
Planta, A E	Expenses, attending Commission	40 00	
Webb, Robert	Stenographer ..... 2½ months @ $60	150 00	
Ret Soldiers' Club, Van	Allowance	1,800 00	
do Emp Com, Vic	do	1,800 00	
do do N West	do	1,200 00	
do do Nan	do	360 00	
			7,769 49
	Vote No. 269a.—Grant towards Cost of Repairs to Sunbury Wharf.		
Corporation of Delta	Grant towards cost of repairs to Sunbury Wharf		100 00
	Vote No. 269b.—Gratuity to the Widow of the late Hon. Ralph Smith.		
Smith, Mary E	Gratuity to the widow of the late Hon. Ralph Smith		3,000 00
	Vote No. 269c.—Funeral Expenses of the late Hon. Ralph Smith.		
Smith, Robert	Funeral expenses of the late Hon. Ralph Smith		629 30
	Vote No. 269d.—Gratuity to the Widow of the late J. P. McLeod.		
McLeod, Mrs J P	Gratuity to the widow of the late J. P. McLeod, equivalent of 3 months' salary @ $335 per month ..... $1,005 Less already paid on account of superannuation 400	605 00	605 00
	Carried forward		389,771 67

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		389,771 67
	XIII.—MISCELLANEOUS.—*Continued.*		
	Department of Mines.		
	Vote No. 270.—Coal-miners' Examinations (Allowance to Examiners and Secretaries).		
Martin, D.	Examiner, Coal Creek ... 12 days @ $ 5	60 00	
Hunter, W.	do " ... 12 " 5	60 00	
McCourt, J.	Secretary, " ... 12 months 10	120 00	
Trehearne, G.	Examiner, Corbin Colliery ... 1 day 5	5 00	
Gilmour, P.	do " ... 1 " 5	5 00	
Walker, Wm.	Secretary, " ... 8 months 10	80 00	
Smith, John.	Examiner, " ... 2 days 5	10 00	
Elmes, Geo.	do " ... 5 " 5	25 00	
Farrace, M.	do " ... 3 " 5	15 00	
Jaynes, F.	do Cumberland ... 1 " 5	5 00	
Robertson, S S.	do " ... 1 " 5	5 00	
Biggs, John G	Secretary, " ... 12 months 10	120 00	
Sloan, H.	Examiner, " ... 6 days 5	30 00	
Bennie, J.	do " ... 6 " 5	30 00	
Gillespie, John	do " ... 3 " 5	15 00	
Bevis, N.	do " ... 3 " 5	15 00	
Moore, Wm.	do East Wellington ... 1 " 5	5 00	
Hamilton, R N.	do " ... 5 " 5	25 00	
Budge, Thos.	Secretary, " ... 12 months 10	120 00	
Hemer, H	Examiner, " ... 1 day 5	5 00	
Moore, W H	do " ... 3 days 5	15 00	
James, Wm.	do Extension ... 9 " 5	45 00	
Strang, Thos.	do " ... 3 " 5	15 00	
Anderson, Wm.	do " ... 12 " 5	60 00	
Lowe, Ira E.	Secretary, " ... 10 months 10	100 00	
Greenwell, John S.	do " ...rent of hall, 12 months @ $2.50; 2 " 10	50 00	
Cunliffe, Thos	Examiner, Michel ... 12 days 5	60 00	
Mercer, James.	do " ... 9 " 5	45 00	
Gregory, Henry.	do " ... 3 " 5	15 00	
Spruston, R L	Secretary, " ... 12 months 10	120 00	
Hudson, George.	do Nicola ... 12 " 10	120 00	
Warburton, L.	Examiner, " ... 6 days 5	30 00	
Walker, Geo.	do " ... 10 " 5	50 00	
Brace, Tom.	do " ... 3 " 5	15 00	
McDonald, J C.	do " ... 1 " 5	5 00	
Hindmarch, R R.	Secretary, Nanaimo ... 12 months 10	120 00	
Jackson, T R	Examiner, " ... 9 days 5	45 00	
Batty, R.	do " ... 6 " 5	30 00	
Bradley, Wm.	do " ... 3 " 5	15 00	
Smith, A E	do South Wellington ... 7 " 5	35 00	
Roper, Wm.	do " ... 2 " 5	10 00	
Neen, W J	do " ... 9 " 5	45 00	
Manifold, A.	Secretary, " ... 9 months 10	90 00	
Taylor, George	do " ... 3 " 10	30 00	
Boyce, Tully	do examinations for coal-mine officials, 12 months @ $600 per annum; 3 days' hall-rent @ $5	615 00	
Bryden, Andrew	Expenses, train and hotel fare	26 40	
Strang, Jas.	Examiner ... 9 days @ $10	90 00	
Thomson, Andrew G.	do ... 3 " 10	30 00	
Williams, T H.	Express, insurance, and rent	3 30	
Wilkinson, George	Examiner ... 13 days @ $10	130 00	
			2,814 70
	Vote No. 271.—Grant to Western Branch of Canadian Mining Institute.		
Western Branch Can Mining Institute	Grant to Western Branch, Canadian Mining Institute		1,000 00
	Attorney-General's Department.		
	Vote No. 272.—Destruction of Wolves, Cougars, Coyotes, etc. (Bounties and Salaries).		
Sundry persons	Bounty on 31 cougars (3 young), Alberni Agency	442 50	
do	do 2,609 coyotes (22 "), Ashcroft "	7,794 00	
do	do 2 cougars, " "	30 00	
do	do 114 coyotes, Atlin "	342 00	
do	do 3 wolves, " "	45 00	
do	do 2,639 coyotes (231 young), Clinton "	7,570 50	
do	do 5 cougars, " "	75 00	
do	do 4 Golden eagles, " "	12 00	
do	do 159 coyotes (42 young), Cranbrook "	414 00	
do	do 9 cougars (2 "), " "	120 00	
do	do 10 cougars, Cumberland "	150 00	
do	do 11 wolves, " "	165 00	
	Carried forward		393,586 37

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward	.....	393,586 37
	XIII.—MISCELLANEOUS.—*Continued.*		
	Attorney-General's Department.—*Continued.*		
	Vote No. 272.—Destruction of Wolves, Cougars, Coyotes, etc. (Bounties and Salaries).—Concluded.		
Sundry persons	Bounty on 30 cougars, Duncan Agency	450 00	
do	do 398 coyotes (36 young), Fairview "	1,140 00	
do	do 7 cougars, " "	105 00	
do	do 72 coyotes (14 young), Fernie "	195 00	
do	do 4 cougars, " "	60 00	
do	do 1,891 coyotes, Fort Fraser "	5,668 50	
do	do 18 wolves, " "	270 00	
do	do 1,362 coyotes (18 young), Fort St. John "	4,023 00	
do	do 23 wolves, " "	345 00	
do	do 268 coyotes (4 young), Golden "	798 00	
do	do 15 cougars, " "	225 00	
do	do 19 coyotes, Grand Forks "	57 00	
do	do 133 " Greenwood "	399 00	
do	do 8 cougars, " "	120 00	
do	do 663 coyotes (4 young), Hazelton "	1,983 00	
do	do 8 wolves, " "	120 00	
do	do 3,072 coyotes (38 young), Kamloops "	9,159 00	
do	do 4 cougars (1 "), " "	52 50	
do	do 8 coyotes, Kaslo "	24 00	
do	do 1 cougar, " "	15 00	
do	do 10 cougars (1 young), Nanaimo "	142 50	
do	do 75 coyotes, Nelson "	225 00	
do	do 12 cougars, " "	180 00	
do	do 7 coyotes, New Westminster "	21 00	
do	do 6 cougars, " "	90 00	
do	do 968 coyotes (9 young), Nicola "	2,881 50	
do	do 1 cougar, " "	15 00	
do	do 3,869 coyotes (348 young), 150-Mile House "	11,085 00	
do	do 22 cougars, " "	330 00	
do	do 2 wolves, " "	30 00	
do	do 94 coyotes, Prince Rupert "	282 00	
do	do 46 wolves, " "	690 00	
do	do 216 coyotes (3 young), Princeton "	643 50	
do	do 8 cougars (3 "), " "	97 50	
do	do 933 coyotes (35 "), Quesnel "	2,746 50	
do	do 1 wolf, " "	15 00	
do	do 42 coyotes, Revelstoke "	126 00	
do	do 2 cougars, " "	30 00	
do	do 5 coyotes, Rossland "	15 00	
do	do 1,542 " (8 young), South Fort George "	4,614 00	
do	do 253 coyotes, Telegraph Creek "	759 00	
do	do 87 wolves (6 young), " "	1,260 00	
do	do 595 coyotes (17 "), Vernon "	1,759 50	
do	do 12 cougars, " "	180 00	
do	do 3 coyotes, Yale "	9 00	
do	do 257 " (12 young), per Provincial Game Warden, Vancouver	753 00	
do	do 50 cougars (3 "), " " "	727 50	
do	do 51 golden eagles, " " "	153 00	
do	do 18 wolves, " " "	270 00	
			72,499 50
	Vote No. 273.—Game Protection (including Temporary Salaries, Travelling Expenses, and Incidentals).		
Williams, A Bryan	Provincial Game Warden.....expenses	396 77	
Avery, Wm.	Deputy Game Warden.....expenses and allowances	413 73	
Baker, R	do .....12 days @ $2.50	30 00	
Barker, J R.	do .....expenses	105 35	
Bedford, H E R	do .....expenses and allowances	559 85	
Bishop, H	do ..... "	699 86	
Blackmore, G W	do ..... "	676 21	
Bond, R M	do ..... "	182 85	
Boyd, S	do ..... "	591 70	
Butterfield, G	do ..... "	630 75	
Brown, J	do .....33½ days @ $2.50; expenses, $20.85	104 60	
Campbell, C D	do .....3 months @ $75; expenses and allowances $108.65	333 65	
Carter, A	do ..... "	150 15	
Carter, W R	do ..... "	201 99	
Cochran, A S	do ..... "	498 27	
Cummins, A P	do ..... "	220 83	
Dennis, G	do ..... "	701 39	
Drinnan, W	do ....10½ days @ $2.50; " $7.65	33 90	
Dundas, R N	do ..... "	718 81	
Dunn, R	do ..... "	280 89	
Fergusson, H H	do ..... "	233 80	
Fisher, G R	do ..... "	85 03	
Gartrell, G N	do ..... "	661 95	
	Carried forward	.....	466,085 87

TO WHOM PAID.	FOR WHAT SERVICE.	cts.	$ cts.
	Brought forward		466,085 87
	XIII.—MISCELLANEOUS.—*Continued.*		
	Attorney-General's Department.—*Continued.*		
	Vote No. 273.—Game Protection (including Temporary Salaries, Travelling Expenses, and Incidentals).—Continued.		
Gidley, R	Deputy Game Warden ..... expenses and allowances	265 00	
Graham, J W	do ..... "	270 80	
Hadley, W H	do ..... "	79 75	
Harmer, F	do ..... "	558 20	
Harrop, A B H	do ..... 50 days @ $2.50; 60 days @ $1.25	200 00	
Hird, A	do ..... 15 " 2.50	37 50	
Holst, O	do ..... expenses and allowances	555 96	
Hughes, F W	do ..... "	29 70	
Johnson, F	do ..... "	27 50	
Lodwick, G	do ..... "	84 65	
Lothrop, J S	do ..... "	51 18	
Mader, L	do ..... "	436 30	
Morant, F G	do ..... "	515 22	
Nixon, W J	do ..... "	596 42	
North, F	do 2 months 18 d. @ $75; " $10.85	205 85	
Nowell, T	do ..... "	5 00	
O'Neill, J S	do ..... "	605 95	
Pilling, E	Assistant Stenographer ..... 1 month 13½ days @ $60	88 57	
Reed, H	Deputy Game Warden ..... expenses and allowances	451 52	
Reeves, W M	do ..... "	22 50	
Richardson, R T	do ..... "	711 60	
Robinson, S G	do ..... "	357 25	
Rushford, R	do ..... "	198 90	
Schisler, C	do ..... "	508 67	
Stirling, C W	do ..... "	270 60	
Strong, Wm	do ..... "	600 00	
Stuart, J	do ..... "	603 85	
Terrell, G a'B	do ..... "	152 05	
Thacker, T L	do ..... "	293 71	
Thomas, E	do ..... "	2 50	
Van Dyk, T	do ..... "	340 42	
Ward, A A	do ..... "	760 95	
Wearmouth, H F	do ..... "	106 70	
Arthur, C H	Oats	2 50	
Akerberg, Thompson & Co	Repairs to launches and supplies	34 55	
Anderson, S G	Mounting sheep's head	12 00	
Art Emporium, The	Framing pictures	6 25	
Bailey, A	Rowboat, etc	12 00	
Battery House, The	Battery and hydrometer	27 20	
Bell's Art Store	Framing picture	60	
Bishop & Christie	Moulding-hooks	35	
Bordino, P	Horse-hire	31 00	
B C Electric Railway	Car tickets	2 00	
B C Hop Co, Ltd	1 year's rent of Horst Farm for pheasant-raising to March 31st, 1917	100 00	
B C Telephone Co, Ltd	Telephone service	47 15	
Camera & Arts Co	Wire	45	
Campbell Bros	Provisions	7 40	
Can Bank of Commerce	Exchange on cheques	26 27	
Canadian Express Co	Expressage	3 20	
Can North Express Co	do	4 50	
C P R (Telegraph Dept)	Telegrams	113 87	
Carr, P	Meal, etc	85	
Clayton, D	Launch-hire	6 00	
Close & Co, P	Feed for pheasants	6 87	
Cowichan Merchants, Ld	Wheat for pheasants	50 05	
Craig, D	Auto-hire	10 00	
Craig, M	Charge incurred issuing gun licences	38	
Dawley, H B	Livery-hire, provisions, meals, beds, etc	7 80	
Dominion Express Co	Express charges	61 95	
Dom Telegraph Service	Telegrams	4 39	
Doyle, A	Auto-hire	20 00	
Dumaresq, F J	do	2 50	
Duncan Board of Trade	Freightage	9 00	
Duncan Garage	do	11 50	
Emde, E C	Supplies for launch	15 20	
English, J W	Witness fee and expenses, Rex *v.* Harris	6 25	
E & N Railway Co	Transportation	252 25	
Evans, J I	Cidol	2 25	
Evans, Coleman & Evans	Premium, "Nancy," $28; premium, "Wakesia," $210; premium, "Wat La." $490	728 00	
Exley, J W	Boat-hire and repairs to launch "Wakesia"	38 00	
Fletcher, E	Repairs to engine, launch "Alert"	14 50	
Fouracre, J	Provisions	2 10	
Fraser Hardware Co	Wire netting, batteries, nails, etc	19 80	
Fraser, L C	Flash-light bulb, oil	1 25	
Fraser & Bishop	Gasolene	5 75	
Georgia Pharmacy	Drugs	1 30	
Gibbs Tool & S Works	Gun-licence badges	34 00	
	Carried forward		466,085 87

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	466,085 87
	XIII.—MISCELLANEOUS.—*Continued.*		
	Attorney-General's Department.—*Continued.*		
	Vote No. 273.—Game Protection (including Temporary Salaries, Travelling Expenses, and Incidentals).—Concluded.		
Great N W Telegraph Co	Telegrams	51	
Green, W C	Auto-hire	5 50	
Gunn, G M	Postage	4 00	
Heather & Co, C G	Mounting specimens, etc.	12 50	
Hickey, J L	Lumber	2 50	
Houghton & Evans	Gun-licence badges	419 40	
Hutchings, J M	Stamps and expressage	2 00	
Imperial Oil Co	Gasolene, distillate, and oil for launches	593 84	
Inverness Cannery Co	Provisions	109 95	
Jackson, H S	Witness fees and expenses	17 50	
Johnson, J	Launch-hire	15 00	
Jones & Son, Ltd, C H	Tent and woolsey kit.	13 40	
Langstaff & Co, A	Feed for pheasants	249 82	
Lawson, C	Supplies and gasolene	26 60	
Manning, Ltd, Ira R	Provisions	44 20	
Manson, W M	Horse-hire	9 00	
Marshall, F	Feed for pheasants	6 00	
Mason, T G	Fares, livery-hire, expenses	10 25	
Matthews, R	Expenses as Special Constable	1 00	
Mellish, W K	Expressage	15 00	
Mellor, A	Provisions	5 65	
Montgomery, F J	Feed for pheasants	2 50	
McDowell, C A	Tanning and mounting bear and otter	33 00	
McLellan & McCarter, Ld	Feed for pheasants	2 90	
Newcomb, R L	Launch-hire	3 75	
Owl Drug Co	Drugs	12 15	
Pacific Great Eastern Ry	Expressage	45	
Pandora Sail & T Factory	Sleeping-bag	10 00	
Parkin & Ward Elec Co	Electrical fittings	104 35	
Plimley, T	Repairs to bicycle	32 70	
Postmaster, Vancouver	Stamps	500 00	
Pound, W C	Mounting sheep's head	12 00	
P Rupert Boat House	Moorage for launch	12 00	
Prior & Co, E G	Hardware	12 66	
Reid, W J	Telegrams	60	
Rithet & Co, R P	Premium of launch "Iris"	59 50	
Robertson & Hackett	Show-case	35 00	
Robson, W M	Expenses *re* gun licences	75	
Rockwell, Theal & Davison	Feed for pheasants	36 35	
Roo, F	Provisions	4 10	
Royal Transfer Co	Expressage	24 80	
Ruttledge, M H	Rent of broody hens	6 00	
Scott & Peden	Feed for pheasants	19 20	
Seaman, R L	Towing launch	10 00	
Spratt, J	Livery-hire	9 00	
Stearman, W C	Tins for fumigating office specimens	30	
Stork, F	Hardware	117 17	
Sylvester Feed Co	Carrots, sugar-beets, etc., and feed for pheasants	40 45	
Trites & Wood Co	Provisions	82 85	
Tupper, J H	Feed for pheasants and livery-hire	55 00	
Union Steamship Co	Expressage	45	
United Typewriter Co	Repairs to typewriter	5 15	
Vancouver Shipyard, Ltd	Supplies and repairs to launch "Watla"	137 60	
Webb, H F	Cedar boughs	3 00	
West Can Ranching Co	Meals, beds, and horse-feed	21 75	
Wilkinson, G	Auto and sleigh hire	52 00	
Yates, A	Witness fees and expenses	4 50	
Sundry persons	Feed for pheasants	210 28	
Forest Branch	Repairs to S.S. "Watla"	96 86	
			23,585 07
	Vote No. 274.—Departmental Libraries.		
Burroughs & Co, Ltd	Sundry books, Attorney-General's Department	53 00	
Butterworth & Co (Can)	do " "	26 60	
Can Law Book Co, Ltd	do " "	153 20	
Carswell Co, Ltd	do " "	205 55	
Dept of Public Printing & Stationery, Ottawa	do " "	3 00	
International Press, Ltd	do " "	6 00	
Law Society of B C	do " "	90 00	
Stevens & Haynes	do " "	4 04	
Green & Burdick Bros, Ld	Insurance premium on law-books bequeathed by the late Mr. Justice Irving	60 00	
Butterworth & Co (Can)	Sundry books, Finance Department	13 38	
Fire Protection	do " "	2 00	
Annual Review Pub Co	do Lands "	4 25	
			621 02
	Carried forward	.....	490,291 96

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		490,291 96
	XIII.—MISCELLANEOUS.—*Continued.*		
	Attorney-General's Department.—*Continued.*		
	Vote No. 275.—Legislative Library.		
Academy Political Sci'nce	Sundry books and subscriptions	7 80	
A L A Publishing Board	do	4 72	
Allen, Thomas	do	5 24	
Allen & Son, E G	do	1,439 51	
Am Academy Medicine	do	2 25	
American Architect	do	12 00	
American Association for Labour Legislation	do	1 00	
Am Assoc'n Law Libraries	do	2 00	
American City	do	3 50	
Am Civic Association	do	6 95	
American Consulate	do	2 50	
Am Economic Assoc'n	do	1 13	
Am Historical Society	do	3 00	
Am Inst Elec Engineers	do	5 75	
Am Issue Publishing Co	do	50	
American Machinist	do	5 50	
Aldrich Publishing Co	do	56	
Am S Hygiene Assoc'n	do	3 50	
Am Sociological Society	do	25	
Am Statistical Assoc'n	do	4 00	
Am Technical Society	do	8 44	
Anderson, J R	do	30 00	
Andover Press	do	3 70	
Annual Review Pub Co	do	26 25	
Appleton & Son, D	do	3 00	
Architectural Book Publishing Co	do	10 00	
Argus South African Papers, Ltd	do	3 25	
Atlantic Monthly	do	4 00	
Auckland Weekly News	do	3 31	
Australasian, The	do	8 72	
Ayer & Son, N W	do	10 00	
Baker-Taylor Co	do	310 98	
Bancroft-Whitney Co	do	6 25	
Banta Pub Co, George	do	4 15	
Banking Law Journal	do	1 00	
Batsford, B T	do	911 93	
Bella Coola Pub Co	do	1 00	
Bender, Moss & Co	do	16 00	
Bender & Co, Matthew	do	7 50	
Bibliographical Society of America	do	3 00	
Blake, W W	do	10 00	
Bobbs-Merrill Co	do	1 50	
Bookseller & Stationer	do	1 00	
Book Specialist	do	1 10	
Bon Marché	do	2 24	
Boston Book Co	do	25 52	
Boulger, Demetrius C	do	2 94	
Bowker, R R	do	8 98	
Boyden, George	do	2 00	
Briggs, William	do	6 13	
British Empire League	do	5 03	
British Museum	do	14 37	
Britnell & Son	do	32 84	
Brough & Sons, William	do	7 66	
Brown & Son, James	do	29 45	
Bulletin of Bibliography & Dramatic Index	do	2 00	
Burroughs & Company	do	64 25	
Burrows, Miss Amy C	do	1 35	
Butterworth & Co, Ltd	do	7 85	
Canadian Facts Co	do	2 50	
Canada Law Book Co	do	80 15	
Canadian Courier	do	3 00	
Can Manufact' Assoc'n	do	5 00	
Can Municipal Journal Co	do	2 00	
Can Parliamentary Guide	do	18 00	
Cariboo Observer	do	2 00	
Carnegie Inst of Wash'n	do	40 75	
Carrington, J	do	20 00	
Carswell Company, Ltd	do	463 10	
Columbian Co, Ltd	do	20 00	
Calgary Morn Albertan	do	3 00	
Cassell & Co	do	41 23	
	Carried forward		490,291 96

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	XIII.—MISCELLANEOUS.—*Continued.*		
	Attorney-General's Department.—*Continued.*		
	Vote No. 275.—Legislative Library.—Continued.		
Catholic Book & Church Supply	Sundry books and subscriptions	2 00	
Century Co	do	1 56	
China National Press	do	11 23	
Chollet, J C	do	25	
Christian Literature Society for China	do	3 58	
Clark, T R	do	45	
Clark Co, Arthur H	do	264 60	
Clark Co, John	do	38 08	
Coin & Medal Bulletin	do	50	
Copp-Clark Co	do	141 37	
Cotsworth, M B	do	10 00	
Cowichan Leader	do	65	
Cranbrook Herald	do	2 00	
Creston Review	do	2 00	
Cromarty, R R	do	108 00	
Diocesan Gazette	do	1 00	
Dent & Sons, Ltd, J M	do	68 81	
Denker, J P	do	6 50	
Dobbin, Lieut Graham L	do	5 00	
Dial, The	do	2 00	
Dodd, Mead & Co	do	4 50	
Dodd, Robert	do	10 38	
Dodwell & Co	do	10 10	
Dom Govt Publications	do	12 74	
Ducharme, G	do	1 85	
Dunbar, E M	do	40 50	
Dutton & Co, E P	do	5 00	
Edmonton Journal	do	3 00	
Edwards, Francis	do	92 23	
Engineer, The	do	4 41	
Engineering & Min Jour	do	6 50	
Elder & Co, Paul	do	14 03	
Empire Pub Co	do	46 00	
Englehardt, Fr Zepherin	do	4 50	
Evening Post, The	do	1 00	
Eyre & Spottiswoode, Ld	do	538 96	
Fraser, J D	do	25 01	
Garsides, Harrison	do	91 50	
Geographia, Ltd	do	80	
George's Sons, William	do	25 39	
Gibson, John	do	243 04	
Gill Co, J K	do	70	
Glaisher, Ltd, Wm	do	3 06	
Glasgow, Brook & Co	do	56 66	
Grand Forks Gazette	do	2 00	
Grant, John	do	1 06	
Gray, Henry	do	3 06	
Griffin Co, Charles	do	25 27	
Good Roads	do	2 00	
Greenwich House	do	1 20	
Harper Bros	do	1 81	
Harrison & Sons	do	10 91	
Hasty Messenger Delivery	do	25	
Henderson Directories	do	173 50	
Hessling, Bruno	do	108 73	
Hibben & Co, T N	do	186 59	
H M Printer, N S Wales	do	11 47	
Historical Pub Co	do	14 05	
Hitchman, John	do	82 65	
Hitchman, William	do	17 09	
Hodder & Stoughton	do	14 98	
Hopkins Press, The Johns	do	42 05	
Hotel Red Book Co, Ltd	do	18 00	
Houghton, Mifflin Co	do	36 90	
House & Garden	do	3 50	
Houston's Standard Publications	do	6 00	
Hudson Book Co	do	592 25	
Huebsch, B W	do	1 94	
Huntting Co, H R	do	3 34	
Huntingdon Gleaner	do	1 95	
Huston, A J	do	1 25	
Imperial Institute	do	2 64	
Inter Eng Congress	do	24 50	
Inter Military Digest	do	5 00	
International Press, Ltd	do	36 00	
	Carried forward		490,291 96

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	XIII.—MISCELLANEOUS.—*Continued.*		
	Attorney-General's Department.—*Continued.*		
	Vote No. 275.—Legislative Library.—Continued.		
Iron & Steel Co	Sundry books and subscriptions	7 35	
Japan Times Pub Co	do	6 10	
Jones Co, Marshall	do	20 00	
Jones, George	do	35 00	
Journal Am Inst Crim Law & Criminology	do	7 00	
Journal Can Bankers' Association	do	1 00	
Journal of Commerce	do	3 00	
Kamloops Standard	do	3 00	
Kamloops Telegraph	do	2 75	
Kelly, Chas H	do	3 81	
Kelly Publishing Co	do	62 00	
King & Son, Ltd, P S	do	152 58	
Lauriat Co, Charles E	do	128 30	
Law Book Co, N Zealand	do	31 91	
Lemcke & Buechner	do	16 99	
Library World	do	1 72	
Lippincott, Co, J B	do	47 58	
Literary Digest	do	1 00	
Little, Brown & Co	do	11 25	
Longmans, Green & Co	do	1 98	
Maggs Bros	do	121 60	
Malkan, Henry	do	3 35	
Martin, Archer	do	14 50	
Maynard, Laurens	do	83 83	
Makers of Canada	do	5 00	
Maurice & Co, A	do	87 96	
Maxwell, Charles F	do	52 71	
Melbourne Govt Ptg Office	do	78 52	
Mines Publishing Co	do	2 00	
Mining Journal	do	6 50	
Mining & Scientific Press	do	4 00	
Missionary Education Movement	do	4 75	
Mississippi Valley Historical Association	do	4 50	
Mitchell, T G	do	34 00	
Monetary Times	do	1 50	
Morris, C S	do	4 00	
Morris, Mrs Robert	do	3 00	
Munn & Company	do	19 02	
Museum Book Store	do	535 03	
Musson Book Co	do	59 22	
Mackenzie, G E	do	50 28	
MacLean Co, Ld, Hugh C	do	2 00	
McMillan Co, of Canada	do	193 57	
MacPhie, John	do	1 50	
McBride & Co, Robt M	do	4 40	
McBride Journal	do	3 00	
McClelland, Goodchild & Stewart	do	234 26	
McClurg & Co, A C	do	2 95	
McGraw-Hill Co	do	19 00	
Nanaimo Daily Herald	do	14 80	
Nat Assoc'n of S Libraries	do	5 00	
National Conference of Charities & Correction	do	5 76	
National Conference on Marketing & Farm	do	1 35	
Nat Municipal League	do	15 00	
Nat Progress Pub Co	do	1 00	
Negro Year Book Co	do	35	
Nelson Daily News	do	5 00	
Nelson & Sons, Thomas	do	24 64	
New Brunswick Gazette	do	2 00	
New York Times	do	38 25	
Nijhoff, Martinus	do	4 25	
Nisbet, W W	do	27 10	
Norcross, Miss Maria	do	8 50	
North American Review	do	8 36	
North, Ernest Dressel	do	13 75	
Oliver Ditson Co	do	2 05	
Otago Times & Witness	do	6 60	
Overland Monthly	do	50	
Oxford University Press	do	90 77	
Pac N W Library Assoc'n	do	4 00	
	Carried forward	.....	490,291 96

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	XIII.—MISCELLANEOUS.—*Continued.*		
	Attorney-General's Department.—*Continued.*		
	Vote No. 275.—Legislative Library.—Continued.		
Pineo, A V	Sundry books and subscriptions	72 50	
Polk & Co, R L	do	23 00	
Poor's, Manuel, Co	do	40 00	
Port Alberni Ptg & P Co	do	4 00	
Public Library, N S Wales	do	25 46	
Public, The	do	2 00	
Publisher's Weekly	do	2 00	
Pulker, Alfred	do	3 06	
Punnett, Mrs.	do	4 00	
Putnam's Sons, G P	do	1 50	
Quaritch, Bernard	do	109 80	
Quar Jour of Economics	do	3 00	
Rand, McNally & Co	do	12 94	
Renouf Publishing Co	do	29 35	
Revelstoke Review	do	4 00	
Rhoads, Samuel	do	33 94	
Rod and Gun	do	1 50	
Rossland Miner	do	5 00	
Round Table	do	2 50	
Schulte, Theo E	do	4 30	
Saturday Night	do	3 00	
Salmon Arm Observer Ptg & Pub Co	do	6 00	
Scottish Review	do	1 24	
Scribner's Sons, Charles	do	30 99	
Shakespeare Memorial Theatre	do	13 25	
Shaw Correspond School	do	3 00	
Sheriden, M F	do	1 60	
Small, Maynard & Co	do	1 47	
Smith, George D	do	41 00	
Southeran & Co, Henry	do	295 51	
Spectator Co	do	50	
Stammer, P	do	3 50	
State University of Iowa	do	75	
State Coll of Washington	do	5 25	
Steehart, G E	do	7 53	
Stevens, Son & Stiles, H	do	857 26	
Stock, Elliot	do	6 98	
Standard, Ltd	do	3 00	
Stokes Co, Frederick A	do	97	
Studio, The	do	125 35	
Survey, The	do	5 55	
Superintendent of Documents, Washington	do	5 40	
Syms-York Co	do	4 00	
Theosophical Book Concern	do	25 52	
Thin, James	do	61 30	
Thomson Stationery Co.	do	1 42	
Times Book Club	do	1 65	
Torch Press, The	do	45 17	
U S Cavalry Association	do	25 60	
Univer of Chicago Press	do	10 14	
Van Daily Province	do	7 80	
Van News-Advertiser	do	9 00	
Van Sun Pub Co, Ltd	do	37 28	
Vancouver World, Ltd	do	16 50	
Van Nostrand Co, D	do	65	
Vernon News	do	2 00	
Victoria Book & Stat Co.	do	148 13	
Victoria Daily Colonist	do	72 90	
Victoria News Agency	do	8 50	
Victoria Times P & P Co.	do	51 00	
Victoria Week	do	27 30	
Walbran, Florence M	do	27 75	
Wesley & Son, William	do	78 00	
Westminster Co	do	1 50	
Wheldon & Co, John	do	2 40	
Williams, John D	do	5 60	
Wilson, Alfred	do	196 00	
Wilson, Louis N	do	4 00	
Wilson Co, H W	do	77 31	
Woodward, E	do	25 00	
World Peace Foundation	do	4 00	
Yale University Press	do	83 94	
American Express	Expressage	46 40	
	Carried forward		490,291 96

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	Brought forward	.....	490,291 96
	XIII.—MISCELLANEOUS.—*Continued.*		
	Attorney-General's Department.—*Continued.*		
	Vote No. 275.—Legislative Library.—Concluded.		
Austin, Katherine	Overtime	25 00	
B C Telephone Co	Telephone	1 00	
Calwell, H	Freight, etc.	164 25	
C P R Telegraph Co	Telegraph service	56 20	
Dominion Express Co	Expressage	90 77	
Dom Govt Telegraph	Telegraph service	40	
E & N Railway Co	Freight	35 42	
FitzGerald, Stokes & Co.	do	6 97	
Forsyth, John	Overtime	40 00	
Gaylord Bros	Periodical record-cards	6 75	
G N Express Co	Express	90	
Great Northwestn Tel Co	Telegraph service	25 34	
Hosie, John	Overtime	40 00	
Library of Congress	Cards for Cataloguing Department	4 53	
McTavish Bros	Freight	41 99	
Scholefield, E O S	Sessional allowance	60 00	
Spencer Co, Ltd, David	Felt and tacks	6 15	
Turner, Beeton, & Co	Freight and insurance	74 15	
Vic Book & Stationery	Stationery	35 50	
			13,238 77
	Vote No. 276.—Travelling Libraries.		
Bibliopole, The	Sundry books	2 75	
Boston Book Co	do	3 16	
Bowker Co, R R	Subscription	2 00	
Briggs, W	Sundry books	57 08	
Britnell & Son, J	do	33 90	
Cadmus Book Shop	do	7 25	
Copp-Clark Co, Ltd	do	515 19	
Ducharme, G	do	23 40	
Huntting Co, Inc, H R	do	187 07	
Library Bureau	Subscription	2 25	
Lowman & Hanford Co	Sundry books	37 38	
Museum Book Store	do	15 12	
Macmillan Co of Can, Ltd	do	179 14	
McClurg & Co, A C	do	125 33	
McDevitt-Wilson's	do	36 85	
Oxford University Press	do	15 85	
Scribner's Sons, C	1 book	2 00	
Standard Book Co	Sundry books	12 72	
Vic Book & Stationery Co	do	63 45	
Wilson Co, The H W	Subscriptions	11 00	
Calwell, H	Freight, etc.	392 69	
Dominion Express Co	Express	20 30	
Leigh & Sons	Boxes	82 75	
Strong, Wm	Freight, brokerage, and war tax	4 75	
			1,833 38
	Vote No. 277.—Motor-traffic Regulation (Plates, Badges, Express, etc.).		
Bailey, F	Sorting and shipping licence-plates 4 days @ $2.50	10 00	
Barber, C G	Postage-stamps	11 00	
Bleakley, D E	Express	4 35	
B C Electric Ry Co, Ltd	Electric light	4 34	
Burr, J	Freight and cartage	1 50	
Cameron, C	Express	2 20	
Canadian Express Co	do	12 47	
C P Railway Co	Freight and cartage	8 73	
Cooper, Rex	do	1 70	
Cullen, G	do	2 25	
Dominion Express Co	Express	18 79	
Gash, D	Freight and express	5 45	
Graham, E C	Express	50	
Grierson, S	do	3 00	
Hamilton, A C	Freight and cartage	1 70	
Hannay, J	(Paid) Expressage	1 85	
Huggins, H	Meals for overtime-work	3 00	
Kier, Wm	Expressage and freight	1 02	
Moss, Chas H	do	75	
Mustart, Alex D I	do	80	
McNeely, A D	do	2 75	
McQuarrie, D J	Postage-stamps	60 00	
Macdonald, J	Expressage	55	
Macdonald, Manufg Co	Auto-markers	268 53	
MacPherson, R G	Postage-stamps	218 00	
	Carried forward	.....	505,364 11

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	505,364 11
	XIII.—MISCELLANEOUS.—*Continued.*		
	Attorney-General's Department.—*Concluded.*		
	Vote No. 277.—Motor-traffic Regulation (Plates, Badges, Express, etc.).—Concluded.		
Owen, W	Expressage	80	
Simpson, J	do cartage, and freight	8 70	
Smith, T	do	21 90	
Stephenson, A T	do	1 10	
Taylor, J R	do	7 90	
Victoria Transfer Co	Cartage	8 50	
Welsby, G	Expressage	1 30	
West Transfer Co	Freight	2 07	
Woodruff, E L	Auto-markers and plates, etc	3,988 50	
			4,686 00
	Vote No. 278.—Special Surveys.		
Devereux, F A	Professional services. 9 days @ $15; expenses, $93.40	228 40	
King's Printer	Advertising	20 00	
Bourke, D D	Compensation *re* special survey, District Lot 172, N.W.D	275 00	
Clausen, Mrs A	do " "	71 27	
Bole, W N	do " "	1,157 20	
McQuarrie, N H	do " "	166 25	
Mead, G	do " "	606 01	
Pont, J T	do " "	310 90	
Davis, Marshall, MacNeill & Pugh	do " "	108 65	
			2,943 68
	Vote No. 279.—Contribution to City of Vancouver towards Purchase of certain Lanes in Lot 301, New Westminster District.		
Corp City of Vancouver	Contribution *re* purchase of certain lanes in Lot 301, N.W.D	.....	5 000 00
	Department of Railways.		
	Vote No. 280.—Cross-section Books.		
Mackenzie, Mann & Co, Ld	Blue-prints, binder, and bolts, etc	.....	55 75
	Vote No. 281.—Fraser River Bridge, New Westminster (Salaries, Maintenance, and Repairs).		
Gifford, T S	Superintendent. 12 months @ $155	1,860 00	
Adamson, A	Towerman 12 " 105	1,260 00	
Sayer, J	do 12 " 105	1,260 00	
Gilchrist, H	Spare man 12 " 90	1,080 00	
Newell, Jr, R	Watchman 12 " 80	960 00	
Newell, Sr, R	do 12 " 75	900 00	
Johns, J	do 12 " 75	900 00	
Poingdestre, J	do 11 " 75	825 00	
Godson, J	do 1 " 75	75 00	
Henning, J	Caretaker 12 " 80	960 00	
Purvis, C	Painter 119½ days 4	478 00	
Kilpatrick, R	do 119 " 4	476 00	
Benson, Harry	Watchman 4 months 5 d. 75	311 85	
Pay-list	Labour	228 00	
Aitchison, J N	5 uniforms for bridge employees	175 00	
Anderson & Lusby	Coal-oil, chains, etc	196 73	
Annandale Supply Co	Coal-oil	108 00	
British America Paint Co	Paint	583 05	
B C Electric Railway Co	Light and power	965 25	
B C Electric Railway Co	Labour, repairing and bonding track, maintenance of track on bridge and approaches	1,211 29	
B C Refining Co, Ltd	Asphaltum	37 68	
B C Clean Towel Sup Co	Toilet and towel-supply	15 00	
B C Telephone Co	Telephone service	77 80	
Brunette Saw Mills	Lumber and drayage	652 40	
Belyea & Co, Ltd	Coal, expressage on machinery, etc	158 92	
Can Fairbanks-Morse Co	Storage-batteries, drum, etc	52 73	
Can Northern Railway Co	Material and labour, and patrolling and inspecting track	27 26	
C P R Telegraph	Telegram	1 91	
Fraser River Pile D Co	Labour *re* repairs to east trestle approach	3,151 50	
Galbraith & Sons	Bearings	5 40	
Gen Railway Signal Co	Field coils	25 00	
Gilley Bros	Crushed rock and sand	89 80	
	Carried forward	.....	518,049 54

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	Brought forward		518,049 54
	XIII.—MISCELLANEOUS.—*Continued.*		
	Department of Railways.—*Continued.*		
	Vote No. 281.—Fraser River Bridge, New Westminster (Salaries, Maintenance, and Repairs).—Concluded.		
Great Northern Ry Co..	Labour and material *re* repairs to track and approach to bridge and temporary trestle	632 05	
Hassan Paving Co.	Taking up bridge approach and relaying with Hassan paving	200 00	
Hill, E T	Vaseline	6 53	
Hoy, L Frank	Examination and report *re* railway approach and walk ... 5 days @ $7.50	37 50	
Imperial Oil Co, Ltd	Gasolene	9 20	
Mahony & Gifford	Lamp-standard repairs, etc	79 18	
Mayers, Joseph	Coal	17 00	
Moulton, C	Materials for lighting bridge	92 01	
Merchants, Ltd, The	Linoleum	25 35	
Postmaster, N Westmstr	Postage-stamps	3 00	
Corp of New Westminster	Electric light, $110.70; water, $240	350 70	
Royal City Decorating Co	Painting, lettering signs, etc	433 00	
Railway Signal Engineer	Subscription	1 00	
Railroad Supply Co	Magnet coils	14 00	
Reliable Furniture Co	9 army folding cots	29 25	
Small & Bucklin Lbr Co.	Lumber	490 69	
Trapp, T J	Canvas, hardware, hose, etc	349 82	
Webb & Gifford	Ironwork, machine-work, and blacksmithing	2,653 88	
Westminster Iron Works	Iron brackets, etc	9 76	
			24,542 49
	Vote No. 282.—Songhees Indian Reserve Improvements.		
Pay-lists	Labour and team-hire	45,403 04	
Icke, H A	Engineer in Charge ... 12 months @ $200	2,400 00	
Fleming, P R	Relief Officer ... 8 months 5 d. @ $150; expenses, 12.90	1,237 90	
Humber, Russ	Superintendent ... 70 days 5; " 24.65	374 65	
Armstrong Bros	Repairs to damage to roof caused by blasting	5 00	
B C Electric Ry Co, Ltd.	Half-cost of connecting motor, oil	144 40	
B C Equipment Co	Steam-shovel (second-hand), loading, and freight	5,181 71	
Cameron Lumber Co, Ld	Lumber	24 72	
Canadian Explosives, Ld	Dynamite, caps, wire, Polar ammonia, etc	6,582 48	
Can Fairbanks-Morse Co.	Friction-clutch, pulleys, grease, valves, etc	309 87	
Carter & McKenzie	Repairs to batteries	1 15	
Drake Hardware Co, Ltd	Blacksmith's coal, bolts, sledge-handles, etc	47 80	
E & N Railway Co	Repairs to damage done by blasting	35 88	
Esquimalt Water Works	Water and installing service for air-compressor	54 35	
Fleming, P R	Rent of office furniture, 17 months $119; hall safe, typewriter, desk, etc., $185	304 00	
Fraser, W S	Hardware, plumbing supplies, pipe, fittings, etc	2,624 70	
Gardiner, W W	Drugs	12 07	
Giant Powder Co of Canada, Ltd	Powder, fuse, exploders	2,277 13	
Green, J	Alteration to safe	2 50	
Hall & Walker	Coal	147 50	
Hawkins & Hayward	Electrical supplies and repairs	340 81	
Heaney, J	Hauling	218 35	
Hickman-Tye Hdwre Co	Coal	42 95	
Hutchison Bros & Co, Ld	Cast-iron brake-shoes, material, and labour	31 67	
Jones & Rant, Ltd	Dynamite, ammonia, rent of rails, and haulage	1,569 65	
Kingham & Co, J	Coal	7 50	
Lemon, Gonnason & Co..	Lumber	48 11	
Mable, W	Blacksmithing	23 90	
Marine Iron Works	Repairs to engine and materials	546 82	
Marvin & Co, E B	Oil, chain, rope, graphite, etc	39 85	
Mellor, F	Signs	20 00	
McLennan, McFeely & Co, Ltd	Track-spikes	24 40	
Moore-Whittington Lumber Co	Lumber	879 52	
Newson, Keene & Townley, Ltd	Dump-cars	297 00	
Newton & Greer Co, Ltd	Paint and brush	4 05	
Post Office	Rent of post-office drawer for 1 month to 31st March, 1917	1 20	
Powell & Sons, G	Iron, bolts, washers, spikes, oil, grease, etc	125 98	
Prior & Co, Ltd, E G	Hardware, cable, etc	35 37	
Producers Rock & Gravel Co	Sand	15 60	
Robertson Iron Works..	Blacksmithing, etc	876 37	
Sweeney Cooperage Co..	Barrels and cartage	13 50	
United Typewriter Co	Repairs to typewriter	2 50	
Vic Machinery Depot Co	Oil and grease	167 88	
Cloughley, A	Full compensation for injuries received and expenses incurred in accident at Reserve	10 00	
Denley, W	do " " "	49 00	
Heale, R	do " " "	750 00	
Mason, A	do " " "	200 00	
	Carried forward		542,592 03

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	Brought forward		542,592 03
	XIII.—MISCELLANEOUS.—*Continued.*		
	Department of Railways.—*Concluded.*		
	Vote No. 282.—Songhees Indian Reserve Improvements.— Concluded.		
Ross, R	Full compensation for injuries received and expenses incurred in accident at Reserve	40 00	
Webster, A	do " " "	25 00	
Bechtel, A D, M D	Professional services *re* accidents at Reserve	25 00	
Fraser, R L, M D	do "	30 00	
Grant, J F, M D	do "	47 50	
Stark, H L	do "	25 00	
Prov Royal Jubilee Hosp	Treatment, F. Schulte	15 65	
St Joseph's Hospital	do R. Hutchinson	30 50	
			73,751 48
	Agent-General's Office, London.		
	Vote No. 283.—Salary of Agent-General, including Clerical Assistance, Advertising, etc., 12 Months to 31st March, 1917.		
McBride, Sir Richard	Agent-General 12 months @ $1,250	14,999 87	
do	(Paid) Salaries of office staff	5,155 32	
do	(Paid) *Re* pay-list, Caretaker, Porter, and Cleaners	1,783 17	
do	(Paid) Expenses and petty cash payments	2,132 10	
Ainslie, H	Services as Typist	12 00	
Ashcroft Journal	Subscription	6 00	
Belg Relief Food Fund	do	5 09	
B C Federationist	do	1 50	
Brit Window Cleaning Co	Cleaning windows	130 57	
Brown, A E	Services *re* article on British Columbia	14 55	
Burr, Alfred	Fire and air-craft damage insurance premiums	321 31	
Can Bank of Commerce	Cheque-books, interest, registration of cable address, etc	56 24	
Can Gazette, Ltd, The	Subscription	3 64	
Can Newspaper Co, Ltd	do	6 06	
Can Pacific Ocean Serv	Freight and charges on bear-skins	23 99	
Carter-Paterson & Co	Carriage on parcels of literature	6 20	
Charing Cross Hospital	Contribution	5 09	
Charrington, Sells, Dale & Co	Coal	38 80	
City of London Electric Lighting Co, Ltd	Electric light	4 32	
City Office Towel Sup Co	Towel-supply	47 76	
Clarke, Edwin	Cleaning and renovating heads and bear-skins	15 76	
Collins, M L	Services as Stenographer and expenses	582 07	
Commercial Cable Co	Cables	236 13	
Cooke's Mimeograph Co	Supplies for machine	12 97	
Cowichan Leader	Subscription	1 50	
Critchley, M	Cutting stencils	20 93	
Davidson Aviation Co	Making and fixing window fitment and supplying labels	74 08	
Denny, Mott & Dickson	Pieces of pine and spruce	17 22	
Dent & Co, E	Clock	40 74	
Dominion Express Co	Express charges	38 80	
Elliott, Son & Boyton	Professional services *re* assessments	117 13	
Gale & Polden	Photograph enlargement	5 09	
Gas Light & Coke Co	Fixing meter and stove, gas-supply, and rent of meter and stove	7 47	
Germinal Products, Ltd	Glycerine	4 97	
Gibbons, C H	Press-clipping service	50 00	
Gibb, Son & Co, B	Jacket, etc., for Caretaker	30 56	
Giddy & Giddy	Commission on letting of rooms	82 94	
Globe-Wernicke Co, The	Files, folders, etc.	6 79	
Goodstein, J	Picture-frames	35 53	
Gripper & Beatley	Curbs, rests, and fire-irons	32 98	
Harden & Son, E	Wood	6 31	
Harris, The Sign King	Fish-cases, signs, directory boards, etc	388 72	
Harrod's, Ltd	Coal	16 49	
Hoster, Mrs	Typing	3 76	
Kelly's Directories, Ltd	Directory	6 06	
Kineto, Ltd	Packing-cases and charges *re* shipment of films	103 33	
Le Grand & Sutcliffe	Bolt fitted to weight-chain of well	5 82	
Levy & Son, A	Coke	976 32	
Locket & Judkins	Coal	144 41	
London Chamber of Commerce	Subscription	10 19	
London & Northwestern Railway	Freight	12 61	
London Tel Service	Telephone service	221 62	
L & S E Packing Co	Cleaning requisites and supplies	159 41	
Mansford & Sons, A	Office Stationery	147 17	
Mash & Austin	Apples	30 72	
Meadows & Co, T	Dock dues, cartage, etc	13 75	
	Carried forward		616,343 51

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		616,343 51
	XIII.—MISCELLANEOUS.—*Continued.*		
	Agent-General's Office, London.—*Concluded.*		
	Vote No. 283.—Salary of Agent-General, including Clerical Assistance, Advertising, etc., 12 Months to 31st March, 1917.—Concluded.		
Montreal Gazette	Subscription	6 06	
Nanaimo Daily Herald	do	5 00	
National Review	do	4 85	
Nelson Daily News	do	5 00	
New Fire Extinguisher Co, Ltd.	Hand-grenades and baskets	10 43	
Penticton Herald	Subscription	2 50	
Postmaster-General, The (London Tel Service)	Telephone charges, war surcharge, fixing wire, etc	31 76	
Prince Rupert Empire	Subscription	3 00	
Railway Guides Co, Ltd.	Advertising	375 88	
Hugh Rees, Ltd.	Atlas, geography, and guard-book	2 91	
Roneo, Ltd.	Typewriter ribbons and supplies for copying-machine	67 01	
Royal Agricultural Socy of England	Subscription	4 85	
Schoolmistress, The	Illustrations	12 13	
Scrutton Sons & Co	Dock dues, duty, etc	112 50	
Smith & Son, W H	Extra newspapers, periodicals, etc	18 92	
St James & Pall Mall Electric Light Co, Ltd.	Electric light	699 50	
Story & Co	Linoleum and fittings	113 35	
Straker Bros, Ltd	Photographs, printing, and stationery	430 01	
Tax Collector	Income-tax account, 1 to 3 Regent Street, under Schedule A, and interest	692 43	
Underwood Typewr Co	Typewriters and supplies	170 76	
Vancouver World	Subscription	3 00	
Walker, C J	Advertising, $2,913.65; making blocks and electros for advertising and illustrations, $155.03	3,068 68	
Waring & Gillow, Ltd	Canvas screen	7 28	
Waterlow & Sons, Ltd	Office stationery	282 63	
Waygood-Otis, Ltd	Inspection of lifts and fitting push-button, etc	51 79	
Western Union Tel Co	Cables	550 16	
Wilson, E.	Dollar table	2 55	
Wyman & Sons	Pamphlets, etc	2 75	
			35,151 62
	Immigration and Publicity.		
	Vote No. 284.—Miscellaneous Requirements.		
Allbutt, Frank	Stenographer, transcripts	16 20	
Annual Review Pub Co	"Canadian Annual Review of Public Affairs for 1915"	5 25	
Balfour-Guthrie & Co	Freight, etc	68 15	
B C Consumers' League	Advertisements ..... 9 months @ $40.00	360 00	
B C Federationist	Advertising	470 00	
British Columbian	Subscription	1 00	
Calwell, H	Freight	13 35	
Can Newspaper Co, Ltd.	Subscription	7 00	
C P R Telegraph Co	Telegram	53	
Cath Children's Aid Soc.	Advertising space	50 00	
Colonist Ptg & Pub Co, Ltd	Maps, copies of Budget speech, etc	374 12	
Denker, J P	Copy of survey plat	6 50	
Dom Govt Telegraphs	Telegram	25	
Dominion Express Co.	Express	23 43	
Fleming, Edgar	Views at Government House, etc	27 25	
Fleming, Harold	Photographs	26 50	
Fleming Bros	do	15 25	
Fruit & Farm Magazine	Advertising	270 00	
Grand Forks Gazette	Subscription	2 00	
Heaton's Agency	Freight, postage, subscription, etc	31 02	
Henderson Directories.	Directories	16 00	
Hibben & Co, T N	Photo post-cards	40	
Hudson, G H E	Photograph	6 00	
Industrial Progress	Subscription	2 00	
Island Motorist	Advertising	110 00	
Jacobs, E.	Publicity-work *re* mining in British Columbia ..... 11 months @ $83.33	916 63	
Kamloops Standard	Subscription	3 50	
King Studio	Views	7 00	
Ladysmith Chronicle	Subscription	6 90	
Mail-Herald	do	2 90	
Meth Recorder P & P Co	Advertising	225 00	
McTavish Bros.	Prepaid freight and brokerage	47 75	
Nanaimo Daily Herald	Subscription	1 00	
Nelson Daily News	do	5 00	
Port Alberni Ptg & P Co	do	4 00	
	Carried forward		651,495 13

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	651,495 13
	XIII.—MISCELLANEOUS.—*Continued.*		
	Immigration and Publicity.—*Concluded.*		
	Vote No. 284.—Miscellaneous Requirements.—Concluded.		
Postmaster, Victoria	Stamps	300 00	
P P P Journal of West	Advertisement	200 00	
Rognon, O J	Photograph	6 00	
Rossland Daily Miner	Subscription	75	
Salmon Arm Observer	do	4 00	
Trades & Labour Council	Advertisement	30 00	
Trail News	Subscription	4 00	
Trio, Photographer	Photographs	31 50	
Van News-Advertiser	Subscription	3 00	
Van Daily Province	do and "Industrial Review," advertising natural resources of B.C.	1,503 00	
Vernon News	do	2 00	
Victoria Book & Stat Co.	Enlargements	4 00	
Western Can Motorist	Advertising	100 00	
			5,310 13
	General.		
	Vote No. 286.—Freight, Express, and Cartage.		
American Express Co	Expressage	8 93	
Babbage, Richard W	Freight, etc.	4 12	
Baird, John	Expressage	35	
Barber-Ellis, Ltd.	Freight	20 23	
Bell, J J	Cartage and express	3 75	
Belyea & Co	Cartage on stationery	2 40	
Blackstock Bros	Cartage	25	
Brindle, A S	Stage and boat charges	50	
B C Electric Railway Co	Freight	35	
Brown, N R	Expressage	35	
Burke, J J	Cartage	25	
Burr, J L	do	75	
Calwell, H	Freight, cartage, and prepaid freight	1,229 53	
Campbell, F C	Expressage	35	
Can Bank of Commerce	do	3 80	
Canadian Express Co	do	262 26	
Can Pacific Railway Co	Freight	206 18	
City Trans & W'rhse Co	Cartage	1 00	
Clark, H S	Expressage	3 75	
Cottrell, Geo H	Freight	10 36	
Cullen, T G	Cartage	50	
Craig, A M	Stage and boat charges	1 50	
Dominion Express Co	Expressage	2,136 02	
Duncan, W	do	2 60	
Dwyer, N E	Cartage	4 43	
Eastern B C Railway Co	Expressage	35	
E & N Railway Co	Freight	118 67	
Evans, Coleman & Evans	do	1 05	
Falconer, T W	Cartage	1 00	
Fernie Livery Co	do	50	
Fleming, W B	Expressage	2 50	
Fraser, Robert	do	50	
Fraser Transfer	Cartage	50	
Garvey & Hawkins	Freight, express, etc	4 25	
Gash, D	Cartage	75	
Gorman, M	Expressage	2 00	
Grand Forks Transfer	Cartage	50	
G T P Railway Co	Freight	63 23	
G T P Coast SS Co	do	3 05	
Great Eastern Express Co	Expressage	3 10	
G Northern Express Co	do	18 90	
Grierson, Sam	Cartage and express	31 90	
Griffin, W B	Expressage	5 35	
Hartley, G W	do	2 80	
Heaney, J	Cartage	35 40	
Henderson, John A	do	50	
Hibben & Co, T N	Freight	1 10	
H M Customs	Cartage	25	
Hope Transfer Co	Expressage	25	
Hoskin, E A	Moving safe	3 50	
Hudson, G	Expressage	65	
Hudson's Bay Co	Freight	3 95	
Inland Express Co	Expressage	8 80	
Johnston Bros	Cartage	1 25	
Kaslo Transfer Co	do	25	
Mahony, J	do	5 25	
Mander Bros	Freight	55	
	Carried forward	.....	656,805 26

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward			656,805 26
	XIII.—MISCELLANEOUS.—*Continued.*			
	General.—*Continued.*			
	Vote No. 286.—Freight, Express, and Cartage.—Concluded.			
Mason, T G	Expressage		75	
Miller, E O	do		1 75	
Mitchell Bros	(Paid) Freight		560 75	
Morden, E B	Express and cartage		2 00	
Morris, F	Cartage		41 75	
Moss, Chas H	Freight and cartage		1 00	
Motor Boat Transport Co	do		1 00	
Moynihan, C	Expressage		1 00	
Mustart, Alex D I	do		40	
McEwan, T	Hauling ice		5 00	
McLean, J A	Freight		5 64	
McNeely, A D	Express		1 60	
McTavish Bros	do and brokerage		16 28	
Nanaimo Transfer	do		50	
Newton, John	(Paid) Freight		2 30	
Nickolson, Chas	Cartage		1 10	
Nicola Livery Stable	Express, freight, and cartage		5 50	
Noble, A	Freight		89	
Norris, L	Express		2 05	
Pacific Cartage, Ltd	Freight and cartage		50 55	
Pacific Coast SS Co	do		7 30	
P G E Railway	do		2 81	
Peck, John	Expressage		11 65	
Pelly, J	(Paid) Express and cartage		1 05	
Pineo, M W	Cartage		75	
Pottenger, A B	Express and cartage		61 55	
Royal Transfer Co	Cartage		1 00	
Ruddy & MacKay	Freight and cartage		16 11	
Schulz, L	do		2 00	
Shaw, A	Cartage		1 00	
Simms, J G	do		60	
S Okanagan Transfer Co	Freight		1 60	
Stirling, F R	do		77	
Strachan, John	Cartage		2 75	
Smith, Arthur G	do		3 35	
Sutherland, J P	do		1 00	
Toms, H E	do		50	
V T Railway & F Co	Freight		5 11	
Victoria Transfer Co	Cartage		93 70	
Wallinger, N A	Express		1 70	
West Transfer Co	Cartage		2 00	
Williams, T H	Express		6 90	
Williams, John D	Cartage		5 00	
Wilmot, H F	do		50	
Wise, R G	Freight		11 78	
Wood, Wentworth F	Express		1 80	
				5,173 20
	Vote No. 287.—Fuel, Light, Power, and Water.			
Alberni City	Electric light, $15.35; water, $9.60;	Alberni	24 95	
Bayne, D	Firewood,	"	24 85	
Croll, J A	do	"	9 00	
Paine, E R	Coal-oil, lamps,	"	9 50	
Ashcroft, W E & I Co	Water, $80.65; electric light, $123.40;	Ashcroft	204 05	
Bidding, G	Piling wood,	Atlin	16 00	
Fraser, J A	Janitor services,	"	179 00	
Hall, D L	Haulage,	"	114 75	
Kershaw, J B	Electrical fittings and repairs,	"	8 95	
Marshall, J	Cutting wood,	"	30 00	
McDonald, M J	Gasolene and coal-oil,	"	156 00	
Nevile, C W A	Water, 12 months @ $20,	"	240 00	
Schulz & Sinclair	Haulage,	"	81 00	
Harper, F	Gasolene, coal-oil, mantles, and alcohol,	Barkerville	10 75	
Shepherd, J	Sawing and piling 9 cords of wood @ $2.50 per cord,	"	22 50	
Roddick, J P	Sawing, splitting, and piling firewood,	"	44 50	
Strutt, W A	Allowance for fuel and light, 12 months @ $2.50,	Beaton	30 00	
B C Electric Railway Co	Electric light,	Chilliwack	7 38	
Elk Creek Water W Co	Water,	"	12 00	
Robertson, J P	Coal,	"	104 60	
Barton, J O	Cordwood, 20 cords @ $3.25,	"	65 00	
Barton, A	Haulage,	Clinton	32 50	
Claus, H	Splitting, hauling, and stacking firewood, 4 d. @ $2.50,	"	10 00	
Clinton Electric Co	Electric light,	"	10 00	
Clinton Trading Co	Supplies and repairs to gasolene-lighting system,	"	7 95	
Crowl, R C	Cutting, stacking, and hauling wood,	"	7 00	
	Carried forward			661,978 46

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts
	Brought forward			661,978 46
	XIII.—MISCELLANEOUS.—*Continued.*			
	General.—*Continued.*			
	Vote No. 287.—Fuel, Light, Power, and Water.—Continued.			
Cullen, D D	Felling, splitting, and stacking wood,	Clinton	50 00	
Davis, F	Hauling wood,	"	21 00	
Dumond, M	Flash-light, battery, and postage,	"	60	
Engeman, F W	Flashlight, battery, and bulb,	"	1 10	
Fraser, R	Coal-oil, matches, etc.,	"	51 85	
Fraser, J	Wood,	"	33 60	
Hadley, W H	Sawing, splitting, and stacking wood,	"	15 75	
Indian Prosper	Wood,	"	27 00	
Indian Bones	do	"	12 00	
Lambert, E	Splitting and stacking wood,	"	6 60	
McQuair, J	do	"	5 00	
Parker, J	Repairs to water system,	"	6 00	
Rush, J H	Splitting and stacking wood,	"	3 00	
Benbow, R	Wood,	Cranbrook	45 00	
City of Cranbrook	Water,	"	75 60	
City Transfer & W'rhse Co	Coal,	"	157 28	
Cranbrook Elec L Co, Ld	Electric light, $86.31; lamps and repairs, $8.05;	"	94 36	
Cranbrook Exchange	Electric light globes,	"	3 60	
Cranbrook Sash & D Co	Sawdust, wood,	"	4 75	
Heath, M B	Wood,	"	30 00	
Johnson, J C	do	"	44 00	
Jones & Doris	do	"	88 50	
Manners, C	do	"	10 00	
Morrison, M	do	"	36 00	
McNeil, R S	do	"	4 00	
Orr, J	do	"	33 50	
Cumberland Elec L Co	Electric light, 11 months @ $1.20,	Cumberland	13 20	
Cumberland & Union Waterworks Co	Water, 11 months @ $1.25; repairs, etc., $2.15;	"	15 90	
Hutton, W	Wood,	"	4 50	
Pearse, C	do	"	6 50	
Pearse, T	do	"	6 50	
Royston Saw Mill Co	do	"	12 00	
City of Duncan	Water, $16.20; electric light, $5;	Duncan	21 20	
Cowichan Merchants, Ld	Coal-oil,	"	1 65	
Price, J	Wood,	Endako	40 00	
Braithwaite, D	Splitting wood,	Fairview	9 00	
McCuddy, J P	Coal-oil,	"	25 00	
Graham, J	Wood,	"	192 50	
City of Fernie	Electric light and water,	Fernie	99 40	
Crow's Nest Pass Coal Co	Coal and coke,	"	358 50	
Fernie Livery Co	Wood,	"	16 00	
Fort Fraser Drug Co	Alcohol and gas-mantles,	Fort Fraser	4 10	
Fort Fraser Mercantile Co	Gasolene,	"	28 05	
McRae, J	Cutting and piling wood,	"	22 00	
Reeves, C E	Gasolene,	"	5 50	
Golden Light, P & W Co	Electric light and power,	Golden	321 00	
Moodie, H R	Coal,	"	248 42	
Parson, Ltd, H G	Coal and electric globes,	"	144 06	
City of Grand Forks	Electric light and water,	Grand Forks	71 40	
Grand Forks Transfer	Coal,	"	263 49	
Miller & Gardner	Tungsten lamps,	"	1 60	
Scott Bros	Wood and coal,	"	246 20	
Greenwood City Water Works Co	Electric light, $120; lamps, etc., $20.80; water, $47;	Greenwood	187 80	
McArthur Contractig Co	Wood,	"	9 50	
McKee, H	Coal,	"	315 41	
Nichols, C	Filling coal-bunker,	"	8 00	
Allen, F	Haulage,	Hazelton	13 96	
Cary, N	Overhauling lighting system,	"	1 50	
Cunningham & Sons, R	Globes, mantles, gasolene, etc.,	"	14 40	
Fowler, L	Wood,	"	25 00	
Holland, W	do	"	25 00	
Hudson's Bay Co	Gasolene, coal-oil,	"	12 00	
McMillan, N	Hauling wood,	"	27 22	
Sargent, Ltd, R S	Coal-oil, gasolene, etc.,	"	64 50	
Sweet, E	Wood,	"	70 00	
Jones, A	do	Jedway	60 00	
Dalgleish, N S	Lights,	Kamloops	11 40	
City of Kamloops	Electric light and water,	"	304 15	
Lund, H	Coal,	"	213 42	
Milton, J	do	"	657 82	
Marsh Bros	Electric lamps,	"	12 75	
City of Kaslo	Electric light and water,	Kaslo	357 70	
Kaslo Transfer Co	Coal,	"	282 10	
Weaving, S	do	Ladysmith	5 50	
Lillooet Water Works	Water,	Lillooet	12 50	
Phair, C A	Coal-oil,	"	3 00	
	Carried forward			661,978 46

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	661,978 46
	XIII.—MISCELLANEOUS.—*Continued.*			
	General.—*Continued.*			
	Vote No. 287.—Fuel, Light, Power, and Water.—Continued.			
Terry, R	Wood,	Lillooet	28 00	
City Light Co	Electric light and water,	Merritt	30 70	
Munro, D L	Coal,	"	108 00	
Nakusp Co-operative Soc	Coal-oil,	Nakusp	1 60	
City of Nanaimo	Water,	Nanaimo	36 00	
Hoskin, E A	Coal,	"	165 00	
Nanaimo City Gas Co	Gas,	"	8 47	
Nanaimo Electric Light, Power & Heating Co	Electric light, $74.95; lamps, $5.25;	"	80 20	
City of Nelson	Electric light and power, $275.37; water, $249.67;	Nelson	525 04	
Howe Electric Co	Electric globes, bulbs,	"	42 00	
Matheson, J H	Electric lamp,	"	2 50	
McFarland, D A	Coal,	"	1,095 48	
New Denver Light & Power Co	Electric light,	New Denver	42 00	
Denver Waterworks Co	Water,	"	22 75	
Watson, A	Wood,	"	54 00	
Belyea & Co, Ltd	Coal and wood,	New Westminster	350 50	
B C Electric Railway Co	Electrical power,	"	46 50	
City of N Westminster	Electric light, $284.83; water, $471.73;	"	756 56	
Gilley Bros, Ltd	Coal,	"	435 61	
Mayers, J	do	"	623 50	
New Westminster Gas Co	Gas,	"	58 70	
Armstrong's Dept Store	Matches,	Nicola	2 00	
Davies, R	Wood,	"	8 00	
Howse Co, Ltd, A E	Coal-oil, gasolene, matches, etc.,	"	11 83	
Nicola Livery Stable	Coal and wood,	"	90 50	
Cariboo Trading Co, Ltd	Coal-oil, gasolene, lamp-shades, burners, etc.,	150-Mile House	45 75	
Crosina, Mrs L J	Lamp-globe,	"	35	
Paxton, R	Wood,	"	55 00	
Paxton, T W	do	"	110 00	
City of Prince George	Electric light,	Prince George	4 80	
Garvey & Hawkins	Wood,	"	18 00	
Green, A F	Coal,	"	1 00	
Albert & McCaffery, Ltd	do	Prince Rupert	952 50	
City of Prince Rupert	Electric light, $248.52; water, $83.78;	"	332 30	
Pacific Cartage, Ltd	Coal,	"	116 00	
Parkin & Ward Elec Co	Electrical supplies and repairs,	"	24 80	
Prince Rupert Coal Co	Coal,	"	118 50	
Thompson Hardware Co	Coal-oil,	"	5 25	
Garrison, W S	Coal,	Princeton	65 00	
Howse Co, A E	Electric lamp,	"	1 35	
Princeton Coal & L Co	Electric light,	"	72 00	
Princeton Water W Co	Water,	"	42 00	
Cochrane, D	Coal-oil, matches, lamp-chimneys, etc.,	Queen Charlotte City	25 50	
Fairbairn, W H	Splitting and stacking wood,	"	85 00	
Allison Drug & Book Co	Wood-alcohol,	Quesnel	75	
Carson, A	Wood,	"	40 00	
Cowan Supply Co	Gasolene,	"	7 00	
Howison Estate, J W	Gasolene and wood-alcohol and repairs,	"	4 25	
Johnston Bros	Wood,	"	188 00	
Loomis, K	do	"	45 00	
Sears, W H	do	"	25 00	
Wilson & Steeve	do	"	16 00	
Zschiedrich, C	do	"	42 00	
Carrachio, A	Wood,	Revelstoke	9 00	
City of Revelstoke	Electric light and water,	"	156 55	
Coroniocho, A	Wood,	"	4 50	
Griffiths, T	do	"	5 00	
Lawrence Hardware Co	Battery, fuse-plugs, lamps,	"	4 00	
Robbins, S G	Coal,	"	420 84	
Sibbald & Son	do	"	491 20	
Sutherland, J P	Wood, etc.,	"	15 00	
City of Rossland	Water, $48; electric light, $7.45;	Rossland	55 45	
McGillivray Creek Coal & Coke Co	Coal,	"	234 20	
Plester Cartage & L Co	Wood,	"	7 50	
Rossland Water & L Co	Light,	"	81 95	
Braun, E	Cutting wood,	South Fort George	4 00	
Can Gen Electric Co, Ld	Electric-light meter,	"	18 80	
City of Prince George	Lamps,	"	7 20	
Finlaison, C S	Wood,	"	81 25	
Forbes, G	Hauling wood,	"	12 00	
N Lbr & Mercantile Co	Coal-oil,	"	4 50	
N Telephone & P Co	Electric light,	"	62 15	
Santarello, T	Cutting and splitting wood,	"	36 37	
Somerton, Wm	Electric light,	"	30 50	
Williams, G B	Hauling wood,	"	196 00	
	Carried forward		.....	661,978 46

TO WHOM PAID.	FOR WHAT SERVICE.		$ cts.	$ cts.
	Brought forward		.....	661,978 46
	XIII.—MISCELLANEOUS.—*Continued.*			
	General.—*Continued.*			
	Vote No. 287.—Fuel, Light, Power, and Water.—Concluded.			
B C Electric Railway Co	Electric light,	Sidney	76	
Falconer, T W	Coal-oil,	Stewart	15 60	
George, G	do	"	8 00	
Young, F	Hauling coal,	"	15 00	
Ball, G	Sawing wood,	Telegraph Creek	15 00	
Callbreath, J F	Coal-oil, candles, matches, etc.,	"	48 00	
Hyland Estate, J	Water,	"	30 00	
Johnson, G M	Sawing wood,	"	25 00	
Reid, B	do	"	12 50	
Simpson, L	do	"	15 00	
Sorensen, J	do	"	60 00	
Warnock, W	Wood,	"	250 00	
Brindle, A S	Candles,	Trout Lake	25	
Craig, A M	Hauling wood,	"	3 00	
Johnson, G	Wood,	"	6 00	
Le Beau, F	Water, $18; wood, coal-oil, etc., $36.40;	"	54 40	
Lermo, O	Wheeling and piling wood,	"	3 50	
B C Electric Railway Co	Electric light and power,	Vancouver	2,618 40	
Inland Coal & Coke Co	Coal,	"	2,577 66	
Lang Elec Fixture Co, N	Electrical supplies,	"	265 35	
Smith & Salter	Wood,	"	10 50	
Van City Water Works	Water,	"	476 05	
Vancouver Gas Co	Gas,	"	12 10	
Carswell, R	Wood,	Vernon	64 00	
City of Vernon	Electric light and water,	"	534 91	
Edgar, J M	Electrical supplies,	"	26 48	
Gottfreidson, F	Wood,	"	34 50	
Hardwood, J	Hauling and repiling wood,	"	26 40	
Hunter, J T	Wood,	"	62 25	
Huntley, Mrs A A	do	"	16 87	
Neil & Cryderman	Wood and hauling,	"	23 60	
Parmley, R	Wood	"	4 00	
Pollard, A	do	"	35 75	
Richards, B M	do	"	12 00	
Stuckey, J	do	"	218 25	
Uttke, F M	do	"	256 50	
Vernon Hardware Co, Ld	Electrical supplies,	"	5 40	
B C Electric Ry Co, Ltd.	Electric light and power,	Victoria	4,855 86	
Carter Electric Co	Electrical supplies,	"	290 40	
Hawkins & Hayward	do	"	385 55	
Kirk & Co	Coal,	"	544 88	
Mackay & Gillespie, Ltd.	Wood,	"	110 50	
Painter & Son, J E	do	"	293 50	
Victoria Fuel Co, Ltd	Coal,	"	7,663 44	
Victoria Gas Co, Ltd	Gas,	"	25 06	
Victoria Water Works	Water,	"	1,461 13	
Barbour, J S	Wood, coal-oil, matches,	Wilmer	59 70	
C P Railway Co	Water,	Yale	12 00	
Creighton, D J	Coal and coal-oil,	"	162 20	
Indian Bob	Sawing wood,	"	3 50	
			———	39,911 20
	Vote No. 288.—Interest on Suitors' Fund Deposits.			
Abbott, Macrae & Co	Interest paid *re*	Dorrell *et al. v.* Campbell and Wilkie	16 85	
Bass & Bullock-Webster	do	Benson and "Land Registry Act"	47 98	
Bird, J E	do	Banta *v.* Bhag Singh	9 36	
Bodwell & Lawson	do	Rottenburg *v.* Bank of Vancouver *et al.*	26 75	
Bodwell & Lawson	do	Cameron *v.* Western Life Assurance Co.	1 50	
Bole, J P Hampton	do	Murphy *v.* Stewart	9 00	
Bourne & McDonald	do	Dorrell *et al. v.* Campbell and Wilkie	42 12	
Bowser, Reid, Wallbridge & Co	do	Tecla *v.* Burns *et al.*	3 75	
Brown, Edgar N	do	Dorrell *et al. v.* Campbell *et al.*	9 60	
Burns & Walkem	do	Pochin *et al. v.* B.C.E.R.	185 00	
Chim Cam	do	Tai Sing Co. *v.* Chim Cam *et al.*	1 10	
Crease & Crease	do	Thorburn *v.* Mott *et al.*	18 46	
Davis, Marshall, Macneill & Pugh	do	Brown *v.* Bank of Montreal	6 88	
do	do	E. V. Dunlevie *v.* C.N.P.R.	27 35	
do	do	C.N.P. Ry. Co. and *re* Westminster Trust & Safe Deposit Co., Ltd., *et al.*	343 75	
Donaghy, Dugald	do	Corey Hesse *v.* Vancouver Furniture Manufacturing Co., Ltd.	3 57	
Duncan, George	do	Estate of Lide E. Swalwell, deceased	348 63	
Fulton F J	do	Clemes *v.* Lawrence	13 50	
Goddyn, Hortense	do	Insurance Policy, Odd Fellows' Relief, and Estate of A. G. Goddyn	18 17	
Higgins, Frank	do	"Municipal Act" and Fairfield Expropriation	62 86	
	Carried forward		.....	701,889 66

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	701,889 66
	XIII.—MISCELLANEOUS.—*Continued.*		
	General.—*Continued.*		
	Vote No. 288.—Interest on Suitors' Fund Deposits.—Concluded.		
Jackson & Baker	Interest paid *re* Standard Loan Co., Ltd., *v.* J. Temple	24 00	
Jeremy, J E	do Scottish Temperance Life Assurance Co., Ltd., *v.* Janet Johnson.	1 00	
Lucas & Lucas	do Dorrell *et al. v.* Campbell and Wilkie	40 18	
Macdonell, John Scott	do John Scott Macdonnell Estate	313 71	
McMullen, J E	do Kootenay Central Railway Expropriations and C. Dunbar	140 00	
Percival, Harold Spencer	do Percival *v.* Anderson	320 81	
Russell, Mowat, Wismer & McGeer	do Bird & Son *v.* Newton & Greer	42	
Shrapnel, Anita	do Anita Shrapnel *v.* C.P.R. Co.	4 85	
Taylor, Harvey, Grant, Stockton & Smith	do McIlwee *v.* Foley Bros.	7 50	
Taylor, Harvey, Grant, Stockton & Smith	do Clarke *v.* Carroll	6 78	
Tupper, Kitto & Wightman	do Milne *v.* Central Okanagan Lands, Ltd.	1 15	
Tupper, Kitto & Wightman	do Hawthorne *v.* B.C.E.R. Co.	537 39	
Union Contracting Co.	do Union Contracting Co., Ltd., *v.* Vancouver City	18 75	
Union Contracting Co.	do " " "	21 65	
Wilson & Whealler	do Russell & Co., Ltd., *v.* Johnson & Co., Ltd., *et al.*	2 25	
Wood, James	do C. G. Major *v.* Douglas Symington *et al.*, *re* Estate of Robert Mackie, deceased	11 67	
			2,648 29
	Vote No. 289.—Refunds.		
Andrews, W S	Refund of naturalization certificate fee	5 00	
Bacon, F H	do revenue-tax	15 00	
Bailey, H O	do pre-emption fees	2 00	
Black, A S	do "	4 00	
Brandon, Jas S	do hearing fee	5 00	
Bray, Harry R	do "	5 00	
Blumberg, J E	do pre-emption fees	2 00	
Bromfield, Charles	do "	2 00	
Clark, A R	do "	2 00	
Col Val Fruit Lands, Ltd	do taxes	10 40	
Constantine, Maurice	do pre-emption fees	2 00	
Crowley, Dan	do "	2 00	
Dawson, Alexander	do "	2 00	
Darville, John Stanley	do "	2 00	
De La Matyr, Harry A	do "	2 00	
Deputy Minister of Lands	do amount deposited on purchase of Lot 594, Group 1, Lillooet District	120 82	
Fetherstonhaugh, R D	do mining receipt No. 9696A	100 00	
Fell, Thornton	do overcharge of rental	150 30	
do	do "	540 00	
Fris, Charles O	do pre-emption fees	2 00	
George, Edwin M	do overcharge of rental	29 75	
Gillis, Samuel	do fees for mining leases	100 00	
Hanson, Jacob	do pre-emption fees	2 00	
Haynes, Val C	do overcharge on certificate of purchase	6 83	
Higgins, Thos. John	do pre-emption fees	2 00	
Howarth, William	do "	2 00	
Howarth, George	do "	2 00	
Hudson, Geo & Barrett, Robt F	do "	2 00	
Huff, Wm Henry	do "	2 00	
Jensen, F C	do "	2 00	
Joice, William	do "	2 00	
Kay, Winslow	do "	2 00	
Kirkwood, John	do "	2 00	
Land, Log, & Lbr Co, Ltd	do overcharge of rental	2,805 60	
Lang, Hamilton	do fees paid in error	6 50	
Lavoie, Joseph	do pre-emption fees	2 00	
Leahy, Edward	do "	2 00	
Logan, A A	do mineral-tax	25 38	
Louden, Michael	do pre-emption fees	2 00	
Loosemore, A C	do marriage licence fee	5 00	
Lyall, Wm H	do pre-emption fees	2 00	
Martin, Geo; Aitken, Wm; Forschner, Lewis and Willgoose, Jno Thomas	do "	2 00	
Martin, Percy E	do "	2 00	
Matheson, William A	do amount paid for free miner's certificate	5 00	
Mayne, B	do pre-emption fees	2 00	
Mearns, Alexander	do "	2 00	
Miller, George	do "	2 00	
Mitchell, Robert	do "	2 00	
Morgan, Robert	do C.P.R. *v.* Barwick & Castellarin	71 00	
	Carried forward	.....	704,537 95

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	704,537 95
	XIII.—MISCELLANEOUS.—*Continued.*		
	General.—*Continued.*		
	***Vote No. 289.—Refunds.*—Concluded.**		
Myers, George	Refund of pre-emption fees	2 00	
MacDonald, John St L.	do "	2 00	
McCombs, Daniel C.	do "	2 00	
McGivern, Herbert	do certificate of improvement issued in error	2 00	
McMillan, Manson	do free miner's certificate	5 00	
McShame, John	do coal and petroleum licence fee	100 00	
Nimpkish Lake Log Co.	do amount allowed for timber cut and owned by the company	2,839 86	
Olson, John	do pre-emption fee	2 00	
Pacific States Fire Ins Co	do taxes	86 19	
Palmer, Frank	do pre-emption fee	2 00	
Paterson, Francis	do "	2 00	
Paulson, Mrs A E	do taxes	18 00	
Peterson, Christian	do pre-emption fee	2 00	
Prestlien, Melvin A	do overcharged interest	4 75	
Pugin, H Welby	do leave of absence pre-emption fee	2 00	
Ritchie, Geo E	do deposit on plans and specifications	10 00	
Rosen, A J	do pre-emption fee	2 00	
Sampson, W Curtis	do cheque No. 88474	50 00	
Scott, Charles	do certificate of improvements issued in error	2 00	
Shadrach, J E, & Pinkerton, Leila	do pre-emption fee	2 00	
Smith, S McB	do "	2 00	
Sweet, N D & W S	do "	4 00	
Thompson, James Peter	do "	2 00	
Thompson, G H	do naturalization fee	2 50	
Toole, Frank O	do pre-emption fee	2 00	
Vanderburgh, Wm C	do "	2 00	
Wade, Milton	do "	2 00	
Walker, E G	do taxes	18 00	
Watt, George M	do pre-emption fee	2 00	
White, Cleeve G	do hearing fee, Loenholm *v.* Law	5 00	
White, William	do pre-emption fee	2 00	
Wilson, Albert Austin	do overpayment of interest and principal	38 00	
Williams, David E.	do pre-emption fee	2 00	
			7,291 88
	Vote No. 290.—Rents.		
Fraser, H	Rent of lock-up, Abbotsford	144 00	
Priestley, A F	do police quarters, Ayansh	10 00	
Strutt, W A	do office, Beaton	120 00	
Fletcher, F J	do lock-up, Blue River	86 00	
Britannia Stores	do " Britannia	120 00	
Benedict, C E	do " Bull River	120 00	
Brown, E A	do " Clearwater Crossing	64 00	
Crow's Nest Pass Coal Co	do " Coal Creek	24 00	
Corbin Coal & Coke Co.	do " Corbin	63 00	
Monte Creek Trading Co	do " Ducks	134 00	
Bailey, A E	do " and office, Endako	159 00	
C P Railway Co	do " site, Field	1 00	
Bittancourt, A R	do " Ganges	144 00	
Granby Con M & S Co.	do " Granby Bay	144 00	
Revilion Freres	do " Hudson Hope	80 00	
Bennett, A S	do room, Kelowna	6 00	
Stewart, J	do office, Ladysmith	60 00	
Seward, Fred	do " and lock-up, Lucerne	142 50	
Ritchie, J J	do lock-up, Marysville	110 00	
Lavertue, A	do " Mount Olie	60 00	
Schell, Fred P	do " New Hazelton	125 00	
Smith, W T	do " Notch Hill	120 00	
C P Railway Co	do " North Bend	1 00	
Palmer, Frank	do " Pouce Coupe	192 00	
Sherberg, O A	do office, Quatsino	60 00	
North Amer Timber Co.	do " Queen Charlotte City	120 00	
Kepner, Edward L	do " Quesnel	146 67	
Hanson, T R	do " and lock-up, Rock Creek	10 00	
McNeish, Thos	do " Slocan	120 00	
Orchard, E E	do " and lock-up, Smithers	192 50	
Hudson's Bay Co	do site for Government Buildings, South Fort George	75 00	
Higgins, A	do lock-up, Telkwa	108 00	
Tyson, L F	do Court-room and Constable's quarters, Trail	270 00	
B C Land & Investment Agency, Ltd	do Provincial Motor and Game Licence Office, Victoria	300 00	
Cross & Co	do Assessor's Office, Victoria	1,200 00	
Palmer, Ben	do lock-up, Waldo	177 00	
Unionist Investment Co.	do " Wasa	60 00	
Bruce, R R	do office, Wilmer	96 00	
			5,164 67
	Carried forward	.....	716,994 50

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	716,994 50
	XIII.—MISCELLANEOUS.—*Continued.*		
	General.—*Continued.*		
	Vote No. 291.—Telegrams.		
C P Ry Co Telegraph	Messages to and from Government offices	4,382 50	
Dom Govt Tel Service	do "	1,360 40	
Fort George & Alta Tel & Elec Co, Ltd.	do "	33 90	
G T P Telegraph Co	do "	81 91	
G N Railway Co	do "	10 42	
G N W Tel Co of Canada	do "	556 43	
Sundry persons	do "	346 75	
			6,772 31
	Vote No. 292—Telephone Service.		
Bella Coola Tel Co	Rent of instruments, messages, tolls, etc	10 00	
B C Telephone Co, Ltd	do "	14,719 76	
Brouse Rural Tel Co	do "	34 65	
Chilliwack Tel Co, Ltd	do "	50 50	
City of Prince Rupert	do "	485 00	
Creston Power, Light & Telephone Co	do "	36 00	
Dom Govt Tel Service	do "	866 13	
Kootenay Tel Lines, Ltd	do "	1,074 45	
Mission City Tel Co	do "	27 00	
Northern Tel Co	do "	234 25	
Okanagan Tel Co	do "	510 05	
Quesnel Tel Co, Ltd	do "	82 15	
Revelstoke Tel Co	do "	159 00	
Sundry persons	do "	275 23	
			18,685 27
	Vote No. 293.—Temporary Assistance.		
Rossiter, E J	Services in Agricultural Dept., Victoria ..... 4 d. @ $125; 3 months @ $62.50	203 60	
Pearson, C P L	do Audit " " ..... 2 mos. 28 d. 90	261 30	
Quinn, M	do Bureau of Information, " ..... 4 days 2.50	10 00	
Barker, J R	do Free Text-book Branch, " ..... 6 " 2.50	15 00	
Bradbury, H J	do " " ..... 2 " 2.50	5 00	
Brewster, J	do " " ..... 13 " 2.50	32 50	
Cunningham, S de T	do " " ..... 6½ " 2.50	16 25	
Ewart, A	do " " ..... 4 " 2.50	10 00	
Flinton, E	do " " ..... 24½ " 2.50	61 25	
Hoby, Charles B	do " " ..... 20½ " 2.50	51 25	
Kirk, Geo	do " " ..... 2 " 2.50	5 00	
Matthews, J	do " " ..... 26½ " 2.50	66 25	
Morgan, W D	do " " ..... 16½ " 2.50	41 25	
Strachan, A	do " " ..... 17 " 2.50	42 50	
Tomlinson, F	do " " ..... 19 " 2.50	47 50	
Wood, E C	do " " ..... 66 " 2.50	165 00	
Quinn, M	do Inspec. of Trust Co.'s Dept., " ..... 1 " 2.50	2 50	
Hurst, Myrtle	do " " ..... 12 " 2.50	30 00	
Gibson, N	do " " ..... 24 " 2.50	60 00	
Gibson, N C	do Joint-stock Co.'s Dept., " ..... 79 " 2.50	197 50	
McBrady, R H	do Land Registry Office, " 12 mos. @ $60; less military pay, 365	355 00	
Campbell, A M	do Lieut.-Governor's Office, " ..... 10 days 2.50	25 00	
Hirsch, Mrs	do " " ..... 7 " 2.50	17 50	
Foggo, Miss	do " " ..... 5 " 2.50	12 50	
Campbell, A	do " " ..... 39 " 2.50	97 50	
Ferguson, F A	do " " ..... 5 hours .45	2 35	
Graham, Ashton	do mail-room, " ..... 10 days 2.50	25 00	
King, Wilma	do Premier's Department, " .....48 days @ $3; 12 " 2.50	174 00	
Jones, Geo	do Provincial Library, " ..... 2 mos. 11 d. 35	81 50	
Cox, Dennis	do Public Works Dept., " ..... 12 days 3	36 00	
Johnston, A	do " " ..... 8 mos. 8 d. 75	619 35	
Moyes, Ebenezer	do " " ..... 152 days 3	456 00	
Eccles, J H	do " " 3 months 11 d. @ $75; 20 days @ 80 overtime, 255 hours @ $0.50	430 70	
Banwell, S	Services in Provincial Secy's Dept., Victoria ..... 3 m. 22 d. @ $90	336 00	
Jesse, E	do " " ..... 7 days 2.50	17 50	
Randall, W	do " " ..... 5 " 3	15 00	
Seymour, L J	do " " ..... 17 " 2.50	42 50	
Wicks, A	do " " ..... 3½ " 2.50	8 75	
Bullock, F	do Railway Department, " ..... 10 " 2.50	25 00	
Macintyre, R W	do " " .....228 " 10	2,280 00	
Rossiter, E J	do " " ..... 3 months 62.50	187 50	
Campbell, A M	do " " ..... 12 days 2.50	30 00	
Roper, R W	do Supreme and County Court, Victoria ..... 14 " 70	31 60	
Jackson, J J	do Telegraph Dept. Victoria ..... 11 " 3.60	39 60	
McPhee, James	do " " ..... 12 months 30	360 00	
	Carried forward	.....	742,452 08

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		742,452 08
	XIII.—MISCELLANEOUS.—*Continued.*		
	General.—*Continued.*		
	***Vote No. 293.—Temporary Assistance.*—Concluded.**		
McPhee, D A	Services in Telegraph Department., Victoria ..... 13 days @ $30	12 58	
Starr, A E	do " " 12 mos. @ $80; extra allowance during night session, $60	1,020 00	
Kirchin, Wm	Services in Travelling Library, Victoria ..... 17 days @ $2.50	42 50	
Foreman, A E	Procuring data and making report for Minister of Railways in respect to arbitration for land and other matters in reference to the proposed Johnson Street Bridge, month of December, 1916	250 00	
Foreman, A E	Report upon the location of the Pacific Great Eastern Railway Co. in the vicinity of Quesnel, B.C. (5 copies); trip to Vancouver in connection with same	245 00	
Brewer, C P	Services in Censor's Office, Vancouver ..... 12 months @ $96	1,152 00	
Foster, J R	do " " ..... 65 days 5	325 00	
Hope, Anna	do " " ..... 2 mos. 10 d. 60	139 30	
Wade, J B	do " " ..... 2 " 7 d. 100	222 54	
Haugh, K	do Court-house, " ..... 1 month 50	50 00	
Halpin, S J	do " " ..... 83½ days 2.50	208 75	
Johnson, A V H	do " " ..... 4 mos. 22 d. 50	233 87	
Jones, D	do " " ..... 1 " 22 d. 65	114 60	
Knox, T J	do " " ..... 12 months 75	900 00	
Lund, Gustav	do " " ..... 23 days 65	48 25	
Mayhew, J E	do " " ..... 2 mos. 26 d. 65	184 50	
Coots, J	do " " ..... 5 months 60	300 00	
Crummer, P J	do Government Agent's Office, " ..... 4 days 80	10 35	
Pyke, J A	do " " ..... 10 mos. 10 d. 90	929 05	
Rose, F A	do " " ..... 2 " 30 d. 75	222 65	
Kerr, G R	do Inspector of Factories Office, Vancouver ..... 12 days 2.50	30 00	
Angus, M E	do " Vancouver ..... 8 mos. 15 d. 60	509 04	
Lawson, H S	do " Ashcroft ..... 12 months 15	180 00	
Fraser, J A (Jr)	do Gov't Agent's Office, Atlin 9 hrs. @ 50c.; 205 hrs. @ 53c.; 121 hrs. .55	220 15	
Barton, Dorothy	do " Clinton 2 m. @ $60; 20 days @ $2; 93½ hrs. .35	192 65	
Elgee, E P	do " Cranbrook ..... 78 days 3	234 00	
Higgins, Miss	do " " ..... 3 mos. 18 d. 35	129 30	
Hunt, P de Vere	do " " ..... 237 days 3	711 00	
Worthington, F H	do " " ..... 27 " 3	81 00	
Day, V P	do " Duncan ..... 3 months 35	105 00	
Bradley, W W	do " Golden 11 months @ $31.66; 1 " 31.74	380 00	
Crothers, Beatrice	do " " 5 months 60.00; 18 days 2	336 00	
McGiven, Agnes	do " " ..... 18 " 2	36 00	
Grant, Agnes M	do Assessor's Office, Hazelton ..... 27 " 2	54 00	
Frost, J	do " " ..... 26 " 90	78 38	
McNicol, N	do " Kamloops ..... 2 mos. 20 d. 90	238 06	
Seymour, L J	do Land Registry Office, " ..... 2 " 10 d. 75	174 19	
Ure, R F	do Gov't Agent's Office, " ..... 1 " 23 d. 90	159 67	
Phair, Caspar	do Mining Recorder's Office, Lillooet ..... 15 days 189	94 50	
Kirkup, R K	do Assessor's Office, Nanaimo ..... 7 months 75	525 00	
Thompson, Ethel	do Gov't Agent's Office, " ..... 2 " 50	100 00	
Gigot, H	do Land Registry Office, Nelson ..... 14 days 70	31 50	
Goulding, J S	do " " ..... 9 mos. 22 d. 90	876 00	
Johnson, Henry H	do Inspector of Mines, " ..... 10 " 2 d. 150	1,509 67	
Mills, Thomas A	do Acting-Registrar, " ..... 1 " 90	90 00	
Jorgenson, N C	do Locator, Prince George ..... 58 days 3	174 00	
Roberts, Joseph	do Assessor's Office, Prince Rupert ..... 8 mos. 12 d. 90	756 00	
Macleod, H F	do Acting-Registrar, " ..... 15 days 25	12 50	
Clapperton, A	do Assessor's Office, " ..... 1 mos. 23 d. 90	156 78	
Windt, Henry	do " Quesnel ..... 5 " 29 d. 90	534 19	
Fox, T A	do " " ..... 1 " 15 d. 90	138 20	
McGuire, John	do " Revelstoke ..... 1 " 28 d. 60	115 00	
Paget, E W B	do " " ..... 4 " 3 d. 60	245 00	
Gregg, W F	do Gov't Agent's Office, South Fort George ..... 12 " 90	1,080 00	
West, Wm	do " " ..... 27 days 3	81 00	
			24,008 22
	Vote No. 294.—Miscellaneous (not detailed in Estimates).		
American Bank Note Co	Engraving and furnishing debentures, with coupons	850 00	
A 1 Messenger Service	Messenger service	50	
Anderson, W	Consulting Engineer, Sumas Prairie Reclamation.. 21 days @ 20; expenses, $207.45	627 45	
Annie (Indian)	Washing floors, Government Office, Duncan	7 50	
Armstrong, E L	Witness fee, investigation into fire, Ladies' Tailoring Co., Vancouver	2 00	
Armstrong, T H	Compensation for Lot 13, Block 49, District Lot 103, New Westminster, sold in error at New Westminster Tax Sale, December 1st, 1902	150 00	
Baird Motion Picture Machine Co	Baird intermittent star, cam, and shaft	17 00	
Banton, F W	Expenses as Messenger	1 00	
Barton, A S, Bullen, H F, Musgrave, J	Services *re* arbitration, Johnson Street Bridge	300 00	
Bath, F	(Paid) Hose, brass bushings, and plugs for test-pumps	3 00	
	Carried forward		766,460 30

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		766,460 30
	XIII.—MISCELLANEOUS.—*Continued.*		
	General.—*Continued.*		
	Vote No. 294.—Miscellaneous (not detailed in Estimates).—Continued.		
Belyea & Co, Ltd	Duty and brokerage	20 40	
Betts, B B	Typing Voters' List	10 00	
Biddell, R W	Fire reports	2 16	
Birks & Sons, Ltd, H	Winding clocks	50 00	
Bowes, C H	Hairbrush, comb	3 50	
Braun, Mrs	Repairs to flag	1 50	
B C Electric Ry Co	Car tickets	10 00	
B C Equipment Co	Test-pump	45 00	
B C Printing & Litho, Ltd	Official cheques and expressage, Alberni and 150-Mile House	79 75	
Brown Bros & Co Ltd	Wreath	20 00	
Brown & Co, R A	Glue-brush	40	
Brown, J	Roller-brackets	3 00	
Burnett & McGugan	Blue-print and preparing statements *re* dykes	8 50	
Burr, W R	Blue-printing	2 25	
Burroughs Adding Machine Co	Attending to machine, etc	27 36	
Buscombe & Co, Ltd, F	Jugs	2 70	
Calbick, Mrs C H	Repairs to flag	50	
Calwell, H	Haulage and (paid) freight	50 55	
Campbell, F C	(Paid) "Pacific Canadian" newspaper, 20c.; corkscrew and awl, 45c	65	
Campbell, D M	Membership fees to Fire Marshalls' Association of North America	20 00	
Can Bank of Commerce	Amount paid Bodwell & Lawson for professional services, $250; commission, etc., $12.36	262 36	
Can Fairbanks-Morse Co	Leather belting for blue-print motor	1 44	
Can Forestry Association	Minister of Lands, membership fees, Canadian Forestry Association, for years 1915 and 1916	2 00	
Can General Electric Co	Supplies for censor of Moving Pictures	174 47	
Canadian May-Otway Fire Alarm, Ltd	Inspection	8 30	
Carlisle, —	Fire Reports	194 00	
Carnahan Bros	Hauling ashes, etc., Vancouver Court-house	338 00	
Carter Electric Co	Supplies for blue-print machine	68 00	
Chisholm, A	Boat-hire	3 50	
Clarke, T E	Fire reports	2 15	
Clarke & Stuart Co, Ltd	Crayons and erasers	1 75	
Clinton Trading Co	Repairs to flags	2 00	
Colonist Ptg & Pub Co	Official cheques, printing debentures, etc	1,048 00	
Continental Marble Co	Marble switchboards, etc., Censor of Moving Pictures	100 19	
Coolahan, W	Burying dead dog	2 00	
Cope & Sons	Battery for flash-light	35	
Coquitlam Municipality	Proportion of assessment upon Lot 305	50 00	
Correlli, J	Services as Interpreter *re* Barbers fire, Vancouver	4 00	
Cowichan Merchants, Ld	Toilet-paper, matches	95	
Cox & Dougal	Repairs to magnet-springs	2 62	
Cronant, Mrs N E	Repairs to flag	1 50	
Crosbie, C A	Travelling expenses *re* consultation with Minister of Finance	18 55	
Crowe, R C	Counsel fee and expenses *re* investigation of fire at Trail	127 50	
Crowe, B	Boat-hire	3 50	
Cull, N G	Repairs to office glasses, M. G. Watkis	2 75	
Cunninghams, Ltd	Hardware for Censor of Moving Pictures	15 30	
Curtis & Co, D S	Supplies for flue-gas analysis apparatus	19 50	
Cussack, Mrs R	Unpacking glassware, washing, etc	4 00	
Darling & Co, F	Newman clock-dials	4 50	
Davis, T	Fire reports	78 00	
Dickinson, J W	do	10 30	
Dodd, W	Supplying and fixing tidal pole	6 50	
Dominion Exclusives, Ld	Condensers	2 50	
Downie, J	Tubing, etc., for test-pump	2 80	
Eggert, J	Overhauling regulators	6 00	
Elec Blue Print & Map Co	Blue and white prints	103 50	
Electric Supply Co	Flash-light and battery	1 75	
Elec Maintenance Co	Supplies, Censor of Moving Pictures' Office	90	
Electrical Mfg Co	Bar copper	8 55	
Ellis, J H	Fire reports	9 72	
Empress Hotel	Lunches, Australian and New Zealand delegates, $75.15; Sir R. Borden, $27.25	102 40	
Evans, F	Attending and transcribing proceedings at fire inquests	84 80	
Evans, J A	Fire reports	14 32	
Falconer, T W	Cement	5 00	
Farr, L E	Fire reports	12 50	
Fernie, City of	Sewer rental, sidewalk-frontage tax	10 60	
Findlay, J	Fire reports	18 65	
Fitzgerald, N	Attendance and transcript of proceedings at meeting of P.G.E. Ry. officials and Government *re* fair-wage clause	62 50	
Fleming, P R	Provincial Relief Officer, expenses	685 15	
Flett, Ltd, J A	Sundry supplies for Censor of Moving Pictures' Office	86 94	
	Carried forward		766,460 30

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	766,460 30
	XIII.—MISCELLANEOUS.—*Continued.*		
	General.—*Continued.*		
	Vote No. 294.—Miscellaneous (not detailed in Estimates).—Continued.		
Foley Bros, Welch & Stewart	Labour, dynamite, caps, fuse	8 85	
Foster, J	Ash-trays	7 50	
Fraser, R	Fire-hose, etc	9 75	
Fraser & Co, Ltd, W S	Granite dipper	75	
Gault Bros, Ltd	Cheese-cloth	10 80	
General Film Co	Lens mount	5 50	
Georgia Pharmacy	Combs, brushes	6 65	
Gibbs, W R	Witness fee *re* fire at Cranbrook	2 00	
Goepel, P A	(Paid) Supplies for test-pump	20	
Goodman, A E	Clerical services and expenses, Dewdney Dyking Commission	30 25	
Gosnell, R E	Allowance on account of Better Terms Commission..... 9 months @ $83.34	750 06	
Graham, E	Fire reports	1 06	
Graves, J H	do	7 91	
Great N West Tel Co	Messenger service	4 10	
Griffiths, J P	Sundry supplies for Censor of Moving Pictures' Office	329 25	
Gunther, E F	(Paid) Louie Chong for services *re* Ashcroft Fire	9 00	
Guthrie, D	Fire reports	11 33	
Hafer Machine Co, Ltd	Overhauling motor and supplies for blue-print machine	12 20	
Hames, W A W	Fire reports	15 00	
Hanna, L	Hauling ashes, etc	15 75	
Hanson, H	Scavenging	12 00	
Harrison & Co, Ltd, W M	Nail-brushes and whisks	3 70	
Harwood, W E	Fire reports	3 00	
Hawkins & Hayward	Pyrene fire-extinguishers, refills, tape	98 10	
Hayward Bros	Cleaning and repairing clock	5 50	
Heilbroner, M	Repairs to clock	2 50	
Helmcken, Dr J S	Retiring allowance for year ending 31st March, 1917	400 00	
Hem, P	Services, locating Nip Shy Tong	41 00	
Hendry Crossman Electric Co, Ltd	Canadian General Electric Co. Motor	50 00	
Herchmer & Martin	Counsel fees and expenses *re* McDermid investigation	124 05	
Herne, T W	(Paid) Bank B.N.A., protest fees	2 59	
Hickman-Tye Hdwre Co	Screw-driver	40	
H M Customs, Vancouver	Duty on simplex projection-machine, etc	137 73	
Hodgson Plumbing & Heating Co, Ltd	Repairs to projection-machine, etc	1 75	
Holt, W M	Fire reports	3 15	
Hoskin, E A	Removing ashes, Court-house, Nanaimo, $6; livery-hire, $2.50	8 50	
Houlgate, R K	Travelling expenses *re* consultation with Minister of Finance	15 00	
Howatson, W R C	Services *re* P.G.E. inquiry, 49 d. @ $6; living allowance 21 days @ $3; expenses, $10.10	367 10	
Hudson's Bay Co	Photographic films, paper and sheeting	4 33	
Hughes, A D	Services as Surveyor, locating boundaries on Pine Creek	25 00	
Ivel's Pharmacy	Sponges	2 85	
Jarvis, J	Cleaning chimney	2 50	
Jenkins, M	Fire reports	9 20	
Jeune & Bro, Ltd, F	Flags and repairs	109 42	
Jobe, L E	Repairs to typewriter	8 00	
Johnson, A	Services as Scavenger, Princeton	12 00	
Jones, C	do Fairview	16 00	
Kamloops, City of	Sewer rental	450 00	
Kennedy, J S	Services as Engineer, investigating P.G.E. Ry. and making report to Minister of Finance, 15 days @ $30; 5 days @ $5; expenses, $172	697 00	
Kennedy, J S	Services as Engineer, salary 4 months 26 days @ $300; expenses, $204.43; total $1,656.03 (Government to pay half)	828 02	
Kershaw, J B	White lead, oil, paint, etc	9 25	
Knight, G H	Repairs to flag	1 40	
Knight, T P	Fire reports	4 24	
Kydd Bros, Ltd	Hardware supplies, Censor of Moving Pictures	4 75	
Leigh & Sons, J	Lumber	3 00	
Lemon-Gonnason Co, Ld	Map-sticks, snow-shovels	22 10	
Linney, J R	Laundry	75	
Lipsett, E	Union Jack and repairs to flags	72 34	
Little, H	Fire reports	11 00	
Landon, E B	do	20 20	
Madigan, G O	Steam-hose for test-pump	2 00	
Mainland Boiler Works	Chisels	2 50	
Mason, T G	Horse-hire, meal and horse-feed *re* investigation of fires	3 00	
Maspero, E	Repairs to flags	8 00	
Matheson, J H	Repairs to files	1 50	
Megaw, W R	Duck for copying letters	60	
Melrose Co, Ltd	Paint and brush	2 45	
Mitchell & Duncan	Repairs to clock	1 50	
Moffat, J F	Fire reports	6 40	
Moffitt, J	Fixing flag-halyards	5 00	
Moore, W H	Grant to assist in organizing Mines Safety Association for Vancouver Island	500 00	
Moore, P	Blue-prints	65	
	Carried forward	.....	766,460 30

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	766,460 30
	XIII.—MISCELLANEOUS.—*Continued.*		
	General.—*Continued.*		
	Vote No. 294.—Miscellaneous (not detailed in Estimates).—Continued.		
Morris, F	Hauling ashes, etc	15 75	
Muir Electric Co	Battery for flash-light	35	
Mutual Film Corporation of Canada, Ltd	Supplies for Censor of Moving Pictures	45 00	
Murphy, J	Services in connection with drafting proposed amendments to "Water Act," 6 days @ $50; 9 days @ $35; expenses, $30	645 00	
Murray, W C	Fire reports	3 27	
Macdonald, R D	do	10 30	
Macintyre, R W	Services, Railway Department ..... 3 months @ $250=$750 Less amount by P.G.E. Ry. ..... 2 " 125= 250	500 00	
McCorrie, A	Inspection of Lot 2610, Kamloops District	7 50	
McDonald, M J	Gasolene	93 50	
McCall, L D	Fire reports	1 08	
McClelland, D A	do	1 00	
McDonald, D H	do	7 21	
McDiarmid, N A	do	6 66	
McDougall, D	do	13 89	
McGarrigle, C	Filling in dangerous well	8 25	
McGown, G C	Soap, candles, matches	2 50	
McIlveen, T	Fire reports	7 60	
McInnis, F D	Repairing and cleaning adding-machine	11 00	
Mackay, R	Fire reports	6 15	
McLaren, J N	Expenses *re* examination of Lot 3879, Kamloops District	7 60	
McLennan, McFeely & Co	Supplies for Censor of Moving Pictures	4 81	
McLeod & Hodgson, Ltd	Bon Ami	75	
McMicking, W B	Testing and maintaining May-Otway fire-alarm system	40 00	
McNeil, T L	Auto-hire	12 00	
McTavish Bros	Expressage and brokerage	11 70	
McVety, J H	Expenses *re* Committee of Investigation on Workmen's Compensation Laws	821 71	
Nairne, D	Auto-hire	14 00	
National Drug & Chemical Co of Canada	Drugs	107 75	
Nat Fire Protection Assn	Subscription to September, 1917	6 00	
Nelson, A	Livery-hire	2 50	
Nelson, City of	Sewer rental, 1916, on Lots 1 to 24, Block 65	41 15	
Neville, E	Repairs to Government flags	1 50	
News-Advertiser	Law-stamps	261 00	
Nor Electric Co, Ltd	Sundry supplies for Censor of Moving Pictures	653 30	
North West Auto Sup Co	Oil-cans	80	
O'Connor, C	Expenses *re* investigation of fire at St. Eugene Mill, Moyie	4 60	
Offin, E B	Laundry	6 00	
Ollason, J	Fire reports	11 33	
Olson, J	Compensation *re* Pre-emption No. 1634, Barclay District	200 00	
Oswald, W A	(Paid) Supplies for Censor of Moving Pictures	15 32	
Palmer, J	Fire reports	7 30	
Pandora Sail & Tent Factory	Union Jacks	45 38	
Park, W J	Fire reports	2 50	
Parkin, J	do	21 63	
Parkinson, W	do	26 78	
Parkin, Ward Electric Co	Dry cells for electric buzzer	1 00	
Patten, R	Scrubbing and cleaning office	4 50	
Paxton, T	Scavenging, etc., 150-Mile House	9 00	
Paxton, W G	Laundry, Atlin	3 25	
Pearson & Co, G S	Battery for electric bell	50	
Peck, J	(Paid) Duty on blue-prints, pipettes, etc	5 72	
Perkins, W K	Fire reports	2 00	
Perrin, H J	Services *re* audit of Pacific Great Eastern Railway .. 7 days @ $25; overtime, $50; expenses, $64	289 00	
Perry, F G	Services *re* investigation of fire at Cranbrook ..... 2 days @ $5 per day; expenses, $8.20; transcript, $22.80	41 00	
Piper, A	Scavenging, Fairview	20 00	
Plimley, T	Auto-hire and supplies	248 30	
Pond, W G	Fire reports	3 12	
Pope, E	do	7 70	
Powell & Sons, G	Rubber hose	1 32	
Price, Waterhouse & Co.	Expenses *re* Provincial audit .... 1 man, 11½ days @ $35, $402.50; 1 man, 85½ days @ $25, $2,137.50; 6 men, 373¾ days @ $15, $5,606.25; junior, 28½ days @ $10, $285; living allowance and expenses, $2,301.75	10,733 00	
Prince Rupert, City of	Local improvement taxes for year 1916	4,982 16	
Princeton Drug & B Store	Flags	1 50	
Raymer, F	Fire reports	11 33	
Reece, G W	do	8 64	
Reliable Messenger Serv	Messenger tickets	20 00	
Rem Typewriter Co, Ld	Repairs and supplies for typewriter	8 03	
Robertson, D	Expenses *re* Committee of Investigation on Workmen's Compensation Laws	549 91	
	Carried forward	.....	766,460 30

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		766,460 30
	XIII.—MISCELLANEOUS.—*Continued.*		
	General.—*Concluded.*		
	Vote No. 294.—Miscellaneous (not detailed in Estimates).—Concluded.		
Rogers & Co, A	Lock for cash-box, Vernon	4 75	
Rotheram, T H	Fire reports	5 40	
Roxborough, J	Meals for men fighting fire, etc., Atlin	18 75	
Ryall, H	Brushes, combs, etc	2 25	
Sargison, A G	Flag	15 00	
Savage, A E	Fire reports	3 00	
Schaeffer & Budenborg	Test-gauges, throttling calorimeter, etc	53 81	
Scientific Materials Co	Pipettes	9 00	
Scott Bros	Hauling ashes, Grand Forks	8 00	
Sealy, J C K	Water-barrel	2 00	
Seattle Stage Lighting Co	Simplex projection-machine	392 65	
Short, Hill & Duncan, Ld	Repairs to clocks	11 50	
Short, A	Expenses *re* advice on Civil Service Bill	449 95	
Shotbolt, T	Drugs	23 00	
Simson, Balkwill & Co	Supplies for Censor of Moving Pictures	11 79	
Smith, J	Hauling rubbish, etc	501 50	
Smith, F	Services, repairing, painting, etc., Government launch "Tagish"	33 00	
Smith, A G	(Paid) plans and blue-prints	6 85	
Sommer, A J	Photographic films, developing, etc	85	
Speck, G R	Fastener for typewriter desk	35	
Spencer, D, Ltd	Sheeting	9 80	
Squire, F J	Repairs to flags	6 25	
Stevens, S	Photographic films and prints	1 25	
Stewart, R	Pump-case	12 50	
Strigings, N	Scavenging, Quesnel	5 50	
Storey & Campbell	Tool-bags	23 25	
Strangeway, R	Making boxes	4 25	
Syme, J	Fire reports	5 35	
Tallmire, Mrs E W	Repairs to flag and material	5 00	
Tatham, F	Filing vouchers, 2½ days @ $3	7 50	
Taylor & Co, A C	Flag	8 00	
Taylor, H	Auto-hire	3 00	
Thomas, T	Repairs to flag	2 50	
Timberlake, Son & Co	Cleaning and repairing clock	1 00	
Tite, G B	Repairs to flag	3 50	
Turner, A	Fire reports	14 50	
Turner, Hon J H	Income-tax	129 60	
United Photo Stores	Films	75	
Urquhart, A	Supplies for Censor	10 84	
Vancouver, City of	do	6 50	
Van Map & Blue Print Co	do	3 85	
Victoria, City of	Taxes and local improvement assessment	2,961 54	
Victoria Electric Co	Battery for flash-light	35	
Victoria Gas Co	Gas	75	
Victoria Scavenging Co	Scavenging at Court-house	40 50	
Victoria Typewriter Exch	Overhauling and care of adding-machines	25 00	
Van Machinery Depot, Ld	Cutting piece out of boiler	5 50	
Waddell, A G	Fire reports	11 36	
Waites & Knapton	Making key and repairs	8 15	
Warnour, Fairleigh & Co	Carbons	4 95	
Watson, J H	Fire reports	24 61	
Watson, W T	Overhauling boiler, testing pumps, etc	22 25	
Weiler Bros, Ltd	Nail-brushes	6 00	
Western Oil & Supply Co	Supplies for Censor	41 06	
White, J M	Films and developing, electric cord and fuses	5 50	
Williams Machinery Co	Supplies for Censor	434 67	
Wilmot, E A	Dyking assessments	38 39	
Williams, F J	Hairbrushes and combs	16 30	
Wolfenden, V A	Auto-hire	1 50	
Wood, Vallance & Leggat	Supplies for Censor	16 28	
Woodward, A J	Wreaths for the late Hon. Mr. Justice Irving and Mrs. Loewen	35 00	
Wragge, E C	Services, taking evidence at fire investigation, Cranbrook, $55; expenses, $34.10	89 10	
Wright, A R	Fire reports	8 30	
Pay-lists	Men fighting fire, etc., Atlin	260 00	
		37,994 31	
	Cr. Amount transferred, being proportionate cost of engraving, etc. charged to P.G.E. Ry. as part advance, "Loan Act, 1916," 820 debentures @ 50c. $410		
	Refund by Canadian Bank of Commerce on account of legal expenses in connection with issuance of Treasury Bills No. 1, Series E 125		
	Sundry refunds 15		
		550 00	
			37,444 31
	Carried forward		803,904 61

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	803,904 61
	XIII.—MISCELLANEOUS.—*Continued.*		
	Special Warrants Nos. 3, 5, and 13.—Workmen's Compensation.		
McVety, J	Services *re* investigation on Workmen's Compensation Laws	750 00	
Pineo, A V	do " " "	500 00	
Robertson, D	do " " "	750 00	
Hinsdale, F W	do Organizer, "Workmen's Compensation Act"... 5 months 8 days @ $500; expenses, $137.73	2,766 76	
Fennell, B L	do Stenographer, "Workmen's Compensation Act".. 4 mos. 16½ d. @ $60	271 93	
Hirsch, M E	do " " " .. 4 " 11 d. 60	261 29	
Hurst, M	do " " " .. 2 " 11 d. 60	141 29	
Macalister, J	do " " " .. 5 " 18 d. 60	334 84	
Till, A I	do " " " .. 4 " 11 d. 60	261 29	
Worswick, M L	do " " " 6 m. @ $60; 1 day 2.50	362 50	
Dominion Express Co	Expressage	1 05	
Rem Typewriter Co	Rental of typewriters	18 00	
Underw'd Typewriter Co	do	10 00	
			6,428 95
	Special Warrant No. 4.—Gratuity to Widow of the late T. Cunningham.		
Cunningham, Mrs T	Gratuity equivalent to 3 months' salary	.....	600 00
	Special Warrant No. 6.—Gratuity to Widow of the late H. F. Langton.		
Langton Mrs H F	Gratuity equivalent to 3 months' salary	.....	303 00
	Special Warrant No. 7.—Gratuity to Widow of the late R. Howard.		
Howard, R	Gratuity equivalent to 3 months' salary	.....	288 00
	Special Warrant No. 11.—Gratuity to Widow of the late Captain F. Mackay.		
Mackay, Mrs F	Gratuity equivalent to 3 months' salary	.....	315 00
	Special Warrant No. 12.—Gratuity to Widow of the late E. H. Kemp.		
Kemp, Mrs B	Gratuity equivalent to 3 months' salary	.....	240 00
	Special Warrant No. 14.—Funeral Expenses of late Hon. E. Dewdney.		
B C Funeral Co	Funeral expenses of late Hon. E. Dewdney	.....	404 50
	Special Warrant No. 16.—Gratuity to Widow of the late T. H. Spilling.		
Spilling, Mrs A	Gratuity equivalent to 3 months' salary	.....	225 00
	Special Warrant No. 17.—Grant to British Sailors' Relief Fund.		
British Sailors' Relief Fnd	Special grant	.....	1,000 00
	Special Warrant No. 18.—Gratuity to Widow of the late J. Kirkup.		
Kirkup, Mrs J	Gratuity	.....	590 00
	Special Warrants Nos. 21 and 33.—Purchase of Seed-grain for Farmers.		
Armstrong Growers' Assn	Oats and barley	1,852 87	
G T P Railway	Freight	1,478 11	
Hedley-Shaw Mill Co, Ld	Wheat and oats	1,860 00	
Heslip, T	Labour, handling grain, 3½ days	10 00	
Noble Foundation, Ltd	3,530 bushels oats @ 94c	3,318 20	
			8,519 18
	Carried forward	.....	822,818 24

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	822,818 24
	XIII.—MISCELLANEOUS.—*Continued.*		
	Special Warrant No. 22.—Gratuity to Widow of the late W. M. Fatt.		
Fatt, Mrs W M	Gratuity equivalent to 3 months' salary	.....	346 50
	Special Warrant No. 23.—Gratuity to Widow of the late M. Christian.		
Christian, Mrs M	Gratuity equivalent to 1 month's salary	.....	75 00
	Statutory Expenditure (Chap. 25, 1916).		
Powell, G S	Interest *in re* Estate J. L. Powell, 4 years 1 month on $37.61 @ 3%	4 60	
Hornung, R J	Interest on Official Guardian deposit *in re* Estate of B. K. Arndt, 1 year on $1,167.54 @ 3 %, $35.01, one-half share of the same due R. J. Hornung	17 50	
			22 10
	Statutory Expenditure (Sec. 76. "Public Schools Act").		
City of Cranbrook	Amount of delinquent taxes for year ending December 31st, 1915	5,442 35	
City of Enderby	do " " " 1915	1,062 21	
Municipality of Saanich	do " " " 1916	713 93	
City of Slocan	do " " " 1916	514 60	
			7,733 09
	Statutory Expenditure.—Gratuity to J. H. Turner, Retiring Agent-General for B.C.		
Turner, J H	Gratuity	5,000 00	
Turner, J H	Pension 12 months @ $500 per month	6,000 00	
			11,000 00
	Statutory Expenditure (Sec. 31, 1916, Workmen's Compensation Board).		
Workmen's Compensation Board	Grant for the purpose of assisting the Board in defraying expenses	.....	10,000 00
	Statutory Expenditure (Sec. 60, "Workmen's Compensation Act").		
Winn, E S H	Chairman 3 months @ $5,000 per year	1,250 01	
Williams, P	Commissioner 3 " 4,000 "	999 99	
Gilmour, H B	do 3 " 4,000 "	999 99	
			3,249 99
	Statutory Expenditure.—Kettle Valley Railway (under Chap. 35, 1912, and Chap. 64, 1914).		
Kettle Valley Ry Co	Final payment	.....	100,000 00
	Statutory Expenditure ("Coal-Miner's Certificates Act," and Chap. 42, 1916).		
Macdonald, Mr Justice W A	Presiding Commissioner, investigation of Comox Collieries 8 days @ $50; expenses and attendance, $28	428 00	
Henderson, R	Commissioner, investigation of Comox Collieries 5 days @ $25; expenses and attendance, $6.75	131 75	
Hindmarch, R R	Commissioner, investigation of Comox Collieries 5 days @ $25; expenses and fares, $13.85; auto-hire, $35	173 85	
Bullock-Webster, W H	Services as Counsel investigation of Comox Collieries 7 days @ $35; exp., $20	265 00	
Allbutt, F	Stenographer, investigation of Comox Collieries 6 days @ $7.50; transcript, $190.80; binding copies of Record, $1.50; expenses, $15.70	253 00	
Bennie, J	(Paid) Islander P. & P. Co., for printing posters and ballots	13 00	
			1,264 60
	Statutory Expenditure ("Mines Development Act, 1916," Chap. 43, 1916).		
Aberdeen Mine Syndicate	Payment of 50 per cent. total cost of construction of wagon-road; total cost, $5,799.50; 50 per cent. $2,899.75, less $1,500 paid from district vote	1,399 75	
Batiche, D	Horse-hire	188 00	
Bell & Co, R B	Hardware, fuse, caps, etc.	46 45	
	Carried forward	.....	956,509 52

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	956,509 52
	XIII.—MISCELLANEOUS.—*Concluded.*		
	Statutory Expenditure ("Mines Development Act, 1916," Chap. 43, 1916).—Concluded.		
Broughton & McNeil	Hardware, cutlery, crockery, etc	227 90	
Burns, R M	Horse-hire	11 00	
Buxton, J	Blacksmithing	11 00	
Byers, Giegerich, Green Co	Powder, fuse, caps	132 30	
Caldwell, C F	Payment on road from the Jackson Mine to the Bell Mine	439 45	
Canadian Explosives, Ltd	Powder and freight	52 50	
Carscadden, —	Launch-hire	7 90	
Con Mining & Smelting Co of Canada	Stumping-powder	25 50	
Cook, F P	Hardware, powder, caps, fuse	15 95	
Coupland, J	(Paid) Freight	20 00	
Creston Mercantile Co	Files and powder	44 15	
Dalrymple, Wm	Blacksmithing	7 10	
Dominion Express Co	Expressage	2 10	
Donald, M	Services, inspecting and reporting on cost of trail to Salmas Bros.' mine, 1 day	5 00	
Duff, G	Boat-hire, etc	12 30	
Fairbairn, A	Pack-saddle, lash-rope, and blankets	10 00	
Gilker, J A	Lumber	18 27	
Graham, J	Steel chain	20 00	
Great North Express Co	Expressage	3 90	
Green Bros, Burden & Co	Survey of road, New Denver to Three Forks	693 40	
Hagen, M	Boat-hire	29 00	
Harbour Shipping Co, Ld	Freight	43 15	
Harris, A	Boat-hire and towing scows	55 00	
Heal, H	Horse-hire	7 87	
Hedley Trading Co	Hardware, powder, fuse, and caps	283 55	
Henderson's Livery	Livery-hire, haulage, etc	16 50	
Hoops, B N M	Horse-hire, hauling, freight, horse-feed, etc	344 95	
Hunter Bros, Ltd	Hardware, crockery, cutlery, powder, fuse, caps	55 80	
Ingraham, A J	Services as Engineer, locating roads, etc ..... 31 days @ $7.50	232 50	
Jenns, P A	do Cronin Road ..... 25 " 6	150 00	
Jones & Son, Ltd, C H	Tents	63 28	
Keffer, F	Payment of 50 per cent. of wagon-road from Ashcroft-Mamete Road to Highland Valley Mining and Development Co'.s mine; total cost of road, $7,162.93, 50 per cent	3,581 46	
Kent, G A	Packing supplies	28 40	
Ketchum & Co, F F	Hardware, powder, fuse, caps, etc	79 78	
Lee & Bryan	Powder, caps, fuse, etc	24 95	
Letcher, Wm	Boat-hire	19 50	
Lima, J E	Horse-hire	5 00	
Mainland Transfer Co, Ld	Haulage	9 50	
Martin, Finlayson & Mather, Ltd	Hardware	51 40	
McLennan, McFeely & Co	Wire rope	126 44	
Paine & McMillan	Steel, dynamite, caps, fuse, etc	100 05	
McPeak, Mrs M J	Allowance for construction of trail on Corn Creek	250 00	
McRae, J	Horse-hire	34 00	
Nelson Hardware Co	Hardware, tent-flys, etc	75 62	
N Vancouver Cartage Co	Haulage	1 95	
Paine, J B	Launch-hire	22 50	
Paine & McMillan	Dynamite, powder, fuse hardware	410 39	
Palace Livery Stables	Livery-hire	10 00	
Paulon, T H	Hardware, cutlery, dynamite, powder, etc	211 88	
Queen Mines, Inc	Dynamite	16 25	
Read, J E	do fuse, caps, hardware	157 80	
Rennie, W S	Horse-hire	82 00	
Riddle, G A	Transportation charges	1 35	
Salmas Bros	Work on trail and 2 bridges, Alice Arm	362 00	
Salmo Trading Co, Ltd	Powder, fuse, caps, hardware, $41.80; rent of house, 1 month @ $8	49 80	
Sargent, Ltd, R S	Hardware, cutlery, etc	172 15	
Schorn, L	do	35 15	
Seaman, W	Freighting powder, etc	7 50	
Shaw, R L	50 per cent. of cost of wagon-road from Dorreen Station to Fiddler Group mill-site; total cost, $12,000	6,000 00	
Short, F S	Horse-hire, oats, hay	27 40	
Simson, Balkwill & Co	Wire rope, clips	22 72	
Trout Lake Livery & T Co	Dynamite, fuse, caps	51 50	
Wilmes, N	2 scrapers	26 00	
Wood, Vallance Hardwre Co, Ltd	Hardware	57 30	
Pay-lists	Labour and team-work	31,967 72	
			48,754 98
			1005264 50

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	XIV.—DEPARTMENT OF LANDS.		
	Forest Branch.		
	Vote No. 295.—Determination of Lumber Values under "Royalty Act," and Investigation of Timber Measurement (Salaries and Travelling Expenses).		
Barclay, S W	Acting Assistant Inspector, expenses, $ 64	64 00	
Pidcock, W E	Services as Accountant, 2 months @ $125; " 137.85	387 85	
McIntyre, H R	do 2 " 125; " 135.60	385 60	
B C Telephone Co	Long-distance call	1 05	
			838 50
	Vote No. 296.—In Aid of Encouraging Lumber Trade (including Salaries, Travelling Expenses, and Purchase of Materials).		
Woods, J G	Services as Timber Commissioner, London, salary 8 mos. 11 d. @ $250=$2,088.77; expenses and allowance, $1,960.01	4,048 78	
Beale, L B	Services as Eastern Lumber Commissioner, 8 months 17 days @ $125=$1,068.55; 2 months 14 days @ $175=$429.03; expenses and allowance, $1,725.70	3,223 28	
Beasley, Rose	Services as Stenographer, 11 months 16 days @ $60	690 90	
Benedict, R E	Travelling expenses	223 36	
Bevan, A	Services as Forest Assistant, 1 month 22 days @ $100=$173.33; expenses, $65.45	238 78	
Bonney, P S	do Prairie Lumber Commissioner, 2 mos. @ $133.33=$266.66; " 202.70	469 36	
Grainger, M A	Travelling expenses as Chief Forester	51 65	
MacMillan, H R	do	49 26	
Shives, A R	do *re* Prairie exhibit	257 03	
Van Dusen, W J	do	232 60	
Watts, A E	do	48 70	
Alsask News	Advertising and subscription	4 80	
American Lumberman	do	12 07	
Canada Lumberman & Woodworker	do	290 20	
Canadian Woodworker	do	105 00	
Commercial Press, Ltd	do	140 00	
Contract Record & Engineering Review	do	69 24	
Farm & Ranch Review	do	173 80	
Farmers' Advocate, Ltd	do	174 72	
Gagnier, Ltd, H	do	439 81	
Grain Growers' Guide	do	261 90	
Hanna Herald	do	14 40	
Heath & Co, Ltd, E H	do	115 20	
Hooper Publishing Co	do	57 00	
Leader Pub Co, Ltd	do	1 50	
Montreal Star Pub Co	do	406 40	
MacLean Co, Ltd, Hugh	do	318 56	
MacLean Daily Reports	do	50 00	
MacLean Publishing Co	do	163 80	
Nor-West Farmer	do	245 80	
Oyen News	do	9 60	
Prairie Farm and Home	do	84 00	
Prince Albert Herald	do	1 25	
Progress Publishing Co	do	100 00	
Retail Merchants' Assn of Canada Inc	do	1 00	
Roulston, C A	do	12 00	
Saturday Night, Limited	do	71 40	
Saturday Press Pub Co	do	43 92	
Swedish Can Pub Co, Ld	do	5 04	
Timberman, The	do	6 00	
Toronto World, The	do	63 00	
Toronto City Bd of Trade	do	70 00	
Trades & Labor Council	do	15 00	
United Farmrs of Alberta	do	45 00	
Warner Record	do	9 00	
Western Can Contractor	do	2 00	
Western Lumberman	do	72 00	
William Weld Co, Ld, The	do	180 00	
Winnipeg Telegram	do	27 00	
Woodworker Publishg Co	do	35 00	
Ainslie, H	Typewriting	9 34	
Baker, E D	Flash-lights	3 10	
Bawlf Cartage & Transfer	Cartage	20 70	
Bell Telepne Co of Canada	Exchange service	70 55	
Berry, J	Making boxes and packages, 1½ days @ $4.25	6 37	
Bower, J	Carpentery-work, 20 hours .50	10 00	
Bowering, J	Cartage	2 25	
Brighton Express	do	1 70	
British Can Securities, Ld	Rent of office and storage-room	180 00	
British Col Box Co, Ltd	Lumber	5 40	
B C Elec Railway Co, Ltd	Replacing pole	32 26	
B C Telephone Co, Ltd	Long-distance calls	86 80	
	Carried forward		838 50

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward		838 50
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 296.—In Aid of Encouraging Lumber Trade (including Salaries, Travelling Expenses, and Purchase of Material).—Continued.		
Brown & Stainton	Index-cards	1 40	
Brunette Saw Mills Co, Ld	Boxes, crates, and baskets	18 35	
Calwell, H	Freight prepaid	407 52	
Campbell, Ltd	Enlargements	2 60	
Can Bank of Commerce	Drafts	32 58	
Canadian Express Co	Express	2 50	
C N R Co	Freight	7 40	
Can Pacific Railway Co	do cartage, and storage	234 39	
C P R Telegraph Co	Telegrams	505 73	
Canadian Photo Co	Photos	12 25	
Canadian Western L Co	Freight	15 16	
Collins, M L	Stamps for timber letters	60 63	
Colonist P & Pub Co, Ltd	Cuts for advertising, etc	658 27	
Commercial Cable Co	Cables	188 69	
Crowther, George	Stencils	2 30	
Cunningham & Son, Ld, R	Nails and board	1 45	
Curly's Auto Livery	Livery service	12 00	
Cushing Bros, Ltd	Tables and seat	43 80	
Davis, E	Stenographic services	1 00	
Dixon & Murray	Freight and cartage	464 59	
Dominion Express Co	Express and freight	188 87	
Dom Govt Telegraph	Telegrams	5 31	
Dominion Transport Co	Unloading car and freight	23 51	
Elec Blue Print & Map Co	Blue-prints	298 34	
Electrotypers, Ltd	Electrotypes	4 68	
E & N Railway Co	Freight	199 58	
Fawcett Hardware, Ltd	Hardware	6 55	
Fleming, Edgar	Views	4 00	
Fleming, Harold	Photos and prints	208 70	
French, E R	Cartage and help	4 80	
Goss, O P M	Investigation of block paving	146 55	
Grand & Toy, Ltd	Stationery	5 90	
Grant, F	Motor-hire	18 00	
G N W Telegraph Co	Telegrams	128 98	
Hanbury & Co, Ltd, J	Labour and material *re* exhibits	246 28	
Henderson, John	Services as Assistant at exhibit 4 days @ $4.25	17 00	
Hole, Frank	Papering and cleaning	14 40	
Hudson's Bay Co	Flags and bunting	6 25	
Hurd, R H	Services as Carpenter *re* exhibits 28 hours @ 50c.	14 00	
Iowa Lmbr & Tmbr Co, Ld	Crates, express and stencils	20 87	
King's Printer	Printing, binding and stationery	7,287 93	
Kispiox Lumber Co	Lumber	7 88	
Laidlaw & Co, R	do	142 97	
Lane, E C	Dressing fir samples	3 75	
Langmuir Mfg Co, M	Leather case	12 00	
Leigh & Sons, James	Boxes	17 75	
Lemon-Gonnason Co, Ld	Lumber	8 01	
Luke, H H	Services as Carpenter and Painter	5 50	
Macey Office Equipmt Co	Cases and guides	20 23	
Mack, Chas W	Line pat. stamps	2 45	
Manville Hardware Co	Hardware, paper, etc	23 24	
Monarch Lumber Co, Ltd	Lumber, etc	44 55	
Moore & Whittington Lumber Co, Ltd	do and cartage	104 53	
Morrison, G K	Auto-hire	5 00	
McCausland & Son, Ld, J	Labour and material, varnishing, etc	314 30	
McKay Construction Co	Carpenter-work, erecting platform, etc	28 00	
McRobert & Gibeau	Time and cartage	15 00	
McTaggart, W E	Freight and cartage	6 93	
McTavish Bros	Brokerage and freight	1 60	
Nicola Val Pine Lmbr Co	Lumber	25 23	
North Canada Lmbr Co	do and felt	28 93	
Osborne, F F	Making boxes and packages	12 75	
Otis-Staples Lbr Co, Ltd	Lumber	81 05	
Pacific Coast Pipe Co, Ld	Stave pipe, etc	51 75	
Pacific Box Co, Ltd	Crates	13 20	
P A Sign Co	Cloth sign	4 65	
Peart Bros Hardware Co	Hardware	5 00	
Pocock, R L	Photos	2 00	
Pollard, P T	Carpentry and labour 25 hours @ 50c.	12 50	
Postmaster, Regina	Stamps	235 00	
Pringle & Booth	Photos and enlargements	45 63	
Prior & Co, Ltd, E G	Hardware	6 99	
Ransom, Ltd	Zinc half-tone lumber scene	3 25	
Regina Cartage Co, Ltd	Cartage, storage, and freight	75 45	
	Carried forward		838 50

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		838 50
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	***Vote No. 296.—In Aid of Encouraging Lumber Trade (including Salaries, Travelling Expenses, and Purchase of Material).*—Concluded.**		
Reid, John	Services as Assistant Carpenter ..... 21 hours @ 50c.	10 50	
Remington Typewr Co	Typewriter, carbon paper, etc	60 75	
Robert Simpson Co, Ltd.	Velour-covered rope	13 75	
Robertson & Hackett	Lumber, tables, etc	1,337 86	
Rognon, O J	Photos	4 75	
Ross, D	Services as Janitor ..... 2 months @ $2	4 00	
Ross, D H	Shipping, freight, and cartage *re* Melbourne exhibit	26 89	
Rossie, E C	Photos	5 25	
Ruddy & MacKay	Express and freight	1 50	
Sask Picture Framing Co	Putting glass in pictures	1 60	
Noble-Scott, Ltd	Identification cards	3 50	
Scratch, Roy M	Cotton sign	12 00	
Security Lumber Co	Lumber and supplies for platform	50 00	
Simmers, J A	Ferns and fibre saucers	5 26	
Simpson, Irwin	Machine-work on samples, etc	46 96	
Smith & Co, F J	Rent of office	1,200 00	
Standard Publishers, Ld	Printing cards	2 00	
Stevenson, W H	Card signs	3 85	
Stewart & Webster	Signs and lettering	14 50	
Stewart, C	Moving boxes	10 00	
Straingeway, R	Making boxes	6 40	
Thurston-Flavelle Lbr Co	Lumber and prepaid freight	32 63	
Turner, W	14-foot boat, oars, etc	86 00	
Van Cooperage & W Co	Barrels	33 20	
Victoria Book & Stat Co	Building estimator, films, etc	30 40	
Victoria Furniture Co, Ld	Leaf cabinet	51 50	
Victoria Photographic Co	Mounting and framing photos	7 40	
W C Lumberman's Ass'n	Hand-books	56 00	
Western Distributors	Packing goods and draying	19 00	
Western Union Cable Co	Cables	168 25	
Wickett & Craig, Ltd	½ cord bark	8 00	
Williamson, Wm	Labour and material supplied at Exhibition, Toronto	401 42	
Willing, N G	Services as Assistant at Prairie exhibit	13 50	
Winnipeg Indus' Bureau	Rental, Winnipeg exhibit space	250 00	
Young, H B	Services as Stenographer ..... 6 days @ $3	18 00	
			30,745 33
	Vote No. 297.—Forest Products Investigations (Salaries and Travelling Expenses).		
Newlin, J A	Travelling expenses		8 50
	Vote No. 298.—Forest Protection Fund.		
Pay-lists	Labour, fighting fire, Atlin District	25 00	
do	do Cranbrook "	221 65	
do	do Hazelton "	398 35	
do	do Islands "	335 05	
do	do Kamloops "	32 15	
do	do Nelson "	179 70	
do	do New Westminster "	133 50	
do	do Prince Rupert "	210 39	
do	do South Fort George "	1,864 55	
do	do Vancouver "	3,664 69	
do	do Vernon "	130 85	
Gilmore, C E	Guard, Atlin District, 123 days @ $ 4.00; expenses, $225.80	717 80	
Blenkinsop, G	do Clinton " 4½ months 75.00; " 251.60	589 10	
Clarke, R R	Patrolman, " " 46 days 3.00	138 00	
Cuthbert, J	Guard, " " 4 mos. 7 d. 75.00; expenses, $ 34.05	349 80	
Hume, R A	do " " 4½ " 100.00; " 140.95	545 95	
Johnson, F	Ranger, " " 4 " 25 d. 108.33; " 68.25	589 07	
King, H	Patrolman, " " 16 days 3.00	48 00	
Lyne, J W W	Guard, " " 1 mo. 3 d. 75.00; expenses, $ 26.55	106 61	
Mawdsley, M	do " " 4½ months 100.00; " 184.65	634 65	
McKinley, J H	do " " 4½ " 100.00; " 179.15	629 15	
McLean, J K	Ranger, " " 6 " 116.66; " 311.73	1,011 69	
McDougall, A	Patrolman, " " 72 days 3.00	216 00	
McPhail, J B	Guard, " " 2 mos. 18 d. 75.00; expenses, $ 26.55	221 55	
Parsons, F	do " " 2 " 22 d. 75.00; " 21.75	225 00	
Tatten, A H	do " " 3 " 6 d. 75.00; " 120.25	360 25	
Benson, J G	do Cranbrook " 4 " 14 d. 100.00; " 209.14	652 69	
Boiven, W	do " " 2 " 12 d. 90.00; " 108.96	325 25	
Bush, W S	do " " 2 " 6 d. 75.00; " 86.26	249 48	
	Carried forward		31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward.....	.....	31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	***Vote No. 298.—Forest Protection Fund.*—Continued.**		
Cameron, R	Guard, Cranbrook District, 4 mos. 14 d. $100.00; expenses, $152.29	595 84	
Chamberlain, A.....	do " " 2 " 27 d. 90.00; " 186.70	447 70	
Cronin, C	do " " 4 m. 11 d. $90; 29 d. 2.50; " 233.09	698 78	
Crook, C	do " " 3 mos. 27 d. 90.00; " 210.79	561 79	
Foisey, W L.....	do " " 4 " 13 d. 100.00; " 203.82	644 04	
Fisher, J	Labourer, " " 29 days 3.00	87 00	
Hamilton, H	Lookout-man, " " 2 mos. 14 d. 75.00; expenses, $ 49.33	234 33	
Hart, J C.....	Ranger, " " 5 " 116.66; " 350.77	934 07	
Hendren, G.....	Guard, " " 3 " 11 d. 75.00; " 129.53	382 03	
Ingham, C.....	do " " 2 " 28 d. 75.00; " 77.28	295 83	
Ingham, F. H.....	do " " 3 m. 18 d. $90; 2 d. 2.50; " 190.71	519 42	
James, A G.....	do " " 4 mos. 13 d. 100.00; " 173.99	614 31	
Jorgenson, G	do " " 3 m. 18 d. $90; 21 d. 2.50; " 185.48	561 69	
Letcher, T.....	do " " 3½ mos. 75.00; " 106.25	368 75	
Long, R J	Ranger, " " 1 " 30 d. 116.66; " 22.00	251 56	
Miller, A	Acting-Ranger, " " 3 " 28 d. 100.00; " 206.75	597 07	
Miller, J E	Guard, " " 4 " 2 d. 75.00; " 140.81	444 44	
Mitchell, D.....	do " " 2 " 24 d. 75.00; " 58.13	266 76	
Myers, J P	do " " 4 m. 13 d. $90; 30 d. 2.50; " 202.92	677 11	
McIntosh, M.....	do " " 1 mo. 6 d. 75.00; " 54.82	143 12	
Nicol, A H	do " " 4 mos. 14 d. 100.00; " 200.07	643 62	
Rock, F	Lookout-man, " " 1 " 2 d. 75.00; " 20.84	98 99	
Watson, G B.....	Ranger, " " 5 " 116.66; " 310.19	893 49	
Weaver, W	Guard, " " 3 " 23 d. 75.00; " 134.42	416 27	
Allen, R E.....	District Forester, Hazelton " ..... " 184.85	184 85	
Ballard, G H	Guard, " " 1 mo. 16 d. 75.00; " 39.85	153 55	
Brearley, J	do " " 4 mos. 13 d. 90.00; " 102.40	501 59	
Carter, C.....	do " " 4 " 1 d. 75.00; " 75.50	376 70	
Chettleburgh, F B.....	Acting-Ranger, " " 5 " 11 d. 100.00; " 239.03	775 69	
Cory, R M	Guard, " " 4 " 13 d. 75.00; " 54.00	386 66	
Dover, G	Ranger, " " 6 " 108.33; " 165.85	815 83	
Grant, A M.....	Stenographer, " " 6 " 60.00	360 00	
Guest, H	Guard, " " 4 " 2 d. 90.00; expenses, $112.40	476 75	
Kerr, G A	do " " 3 " 27 d. 100.00; " 77.74	466 44	
Lathom, J.....	Ranger, " " 6 " 108.33; " 121.65	771 63	
Martin, A.....	Guard, " " 3 " 14 d. 75.00; " 60.00	317 66	
Morgan, J	do " " 3 " 15 d. 90.00; " 67.50	382 50	
Morrison, K	do " " 4 " 2 d. 90.00	364 35	
McDougall, J D.....	do " " 4 " 8 d. 75.00; expenses, $ 50.95	371 51	
McKenna, J	do " " 4 " 13 d. 90.00; " 122.46	519 23	
McPherson, J.....	do " " 3 " 6 d. 75.00; " 67.45	307 45	
Scott, D.....	do " " 2 " 17 d. 75.00; " 85.25	277 99	
Slavin, P	do " " 4 " 4 d. 90.00; " 116.40	486 56	
Swann, J	do " " 4 " 9 d. 75.00; " 52.55	373 11	
Ainsworth, F W.....	do Islands " 3 " 15 d. 75.00; " 59.63	322 13	
Benedict, R E.....	Assistant Forester, Islands " ..... " 5.00	5 00	
Bittancourt, F J.....	Guard, Islands " 6 mos. 17 d. 100.00; expenses and launch allowance 1,053.84	1,707 71	
Calhoun, S.....	do " " 4 mos. 15 d. 75.00; expenses, 102.75	440 25	
Clarke, G.....	Engineer and Patrolman, Islands " 4 mos. 3 d. $75; 9 d. 3.00; " 102.10	435 39	
Clow, R.....	Labourer, Islands " 11 days 3.00	33 00	
Davey, J	Guard, " " 3 mos. 30 d. 75.00; expenses, $ 29.90	328 69	
Drinkwater, W B	do " " 1 " 8 d. 75.00; " 46.20	139 34	
Fisher, H T L.....	do " " 4 " 24 d. 90.00; " 87.75	519 75	
Fitzgerald, J.....	do " " 3 " 90.00; " 33.02	303 02	
Gill, K.....	do " " 3 " 30 d. 75.00; " 55.35	354 14	
Gillespie, K.....	Guard and Patrolman, Islands " 3 mos. $75; 16 d. 3.00; " 23.30	296 30	
Gilmour, J D	Acting Assistant Forester, Islands " ..... " 120.25	120 25	
Grieve, J.....	Guard, Islands " 4½ months @ $100.00; " 148.75	598 75	
Hawking, H E.....	do " " 5 " 100.00; " 149.49	649 49	
Livingstone, J.....	Guard and Patrolman, Islands " 5 " 5 d. 90.00; " 160.60	625 60	
Lomas, A H	Guard, Islands " 1 " 15 d. 75.00; " 10.00	122 50	
Loveland, W F.....	Ranger, " " 5 " 1 d. 116.66; " 36.25	623 44	
McDonald, R	Guard, " " 5 " 100.00; " 30.00	530 00	
McGarrigle, T.....	do " " 5 " 100.00; " 187.05	687 05	
Pilling, A E.....	do " " 3½ " 100.00; " 26.25	376 25	
Ponsford, G W.....	do " " 4 " 21 d. 100.00; " 190.91	658 66	
Sharp, W F.....	do " " 1 " 14 d. 75.00; " 14.35	122 01	
Shields, J E.....	do " " 4 " 27 d. 90.00; " 142.27	582 88	
Stilwell, J E	Ranger, " " 6 " 108.33; " 148.39	798 37	
Alvo, F F.....	Labourer, Kamloops " 12 hours .30	3 60	
Balmer, M.....	Guard, " " 4 mos. 15 d. 90.00; expenses, $117.50	522 50	
Bayes, R E	do " " 2 " 24 d. 75.00; " 56.00	266 00	
Bunyan, M G.....	Packer, " " 7½ days 4.00; " 1.25	31 25	
Blackmore, R.....	Riverman, " " 5 " 5.00	25 00	
Campbell, F	Guard, " " 4 mos. 2 d. 90.00; expenses, $130.02	494 37	
Cottar, S.	do " " 3 " 7 d. 100.00; " 64.67	388 00	
	Carried forward.....	.....	31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		31,592 33
	IV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	***Vote No. 298.—Forest Protection Fund.*—Continued.**		
Cowan, D.	Acting-Ranger, Kamloops District, 3 m. 22 d. $100; 5 d. $3.00; expenses, $ 87.47	475 80	
Daniels, C.	Guard, " " 4 mos. 13 d. 75.00; " 118.85	449 09	
Hankins, A E.	do " " 4 " 2 d. 90.00; " 82.57	446 92	
Harper, G	do " " 4 " 2 d. 75.00; " 218.45	522 08	
Hawkin, J W.	do " " 3½ " 100.00; " 70.00	420 00	
Hedstrom, G E.	Riverman, " " 5 days 5.00	25 00	
Holliday, W	Ranger, " " 5 months 100.00; expenses, $ 53.70	553 70	
Keyes, G	do " " 6 " 108.33; " 390.80	1,040 78	
Knutson, L.	Guard, " " 15 days 75.00; " 6.40	43 90	
Lane, A	Labourer, " " 12 hours .30	3 60	
Leslie, T.	Guard, " " 4 mos. 15 d. 100.00; expenses, $207.70	654 47	
Loffley, J.	Labourer, " " 7½ hours .40;	3 00	
Maddock, A	Packer, " " 6 days 4.00;	24 00	
Martin, F C	Labourer, " " 12½ hours .40;	5 00	
Mills, C R	Actg. Dist. Forester, " " expenses, $42.70	42 70	
McDougall, P.	Labourer, " " 40 hours @ $ 0.35;	14 00	
McKirdy, F A	Guard, " " 4 mos. 2 d. 100.00; expenses, $182.18	587 02	
McLaren, D.	do " " 1 " 29 d. 75.00; " 37.85	183 01	
McLennan, J	do " " 2 " 28 d. 75.00; " 103.87	321 61	
McLuskey, A.	Labourer, " " 60 hours .33;	19 80	
Neale, R	do " " 7½ " .40;	3 00	
Noble, W E.	Acting Ranger, " " 4 mos. 16 d. 100.00; expenses, $213.48	663 80	
Smith, C A	Guard, " " 4 " 2 d. 75.00; " 139.08	442 71	
Stone, C.	do " " 4 days 3.50;	14 00	
Wells, J F	do " " 4 mos. 13 d. 100.00; expenses, $222.74	666 28	
Wilkinson, R	do " " 3½ months 75.00; " 12.00	274 50	
Black, A M	Ranger, Nelson " 6 " 108.33; " 261.50	911 50	
Boutelier, O L.	Guard, " " 3 mos. 15 d. 75.00; " 94.32	356 82	
Burns, G	do " " 2 " 25 d. 75.00; " 81.87	294 37	
Cawley, A.	do " " 4 months 90.00; " 139.45	499 45	
Christian, J.	do " " 3 " 90.00; " 155.00	425 00	
Dinsmore, W H.	do " " 4 mos. 15 d. 100.00; " 212.70	662 70	
Doyle, G	do " " 4½ months 90.00; " 130.31	535 31	
Gibson, H	do " " 3½ " 100.00; " 127.70	477 70	
Haigh, A E.	do " " 4½ " 90.00; " 53.25	458 25	
Harrison, A J.	do " " 4½ " 90.00; " 132.45	537 45	
Homison, J.	do " " 4½ " 90.00; " 153.40	558 40	
Law, J	do " " 4½ " 90.00; " 179.75	584 75	
Macpherson, H	do " " 4½ " 90.00; " 213.00	618 00	
Magoon, W	Labourer, " " 1 day 3.00	3 00	
Mawdsley, H	Guard, " " 4½ months 90.00; expenses, $162.45	567 45	
Miller, B.	do " " 3 " 75.00; " 96.99	321 99	
Mix, C A	Ranger, " " 6 " 108.33; " 418.03	1,068 03	
Murray, H	Guard, " " 4½ " 75.00; " 187.90	525 40	
McGregor, G	Labourer, " " 2 days 3.00	6 00	
McKay, W A	Guard, " " 4½ months 100.00; expenses, $161.84	611 84	
Nelson, H S.	Ranger, " " 6 " 108.33; " 247.10	897 10	
Ody, F	Guard, " " 4½ " 75.00; " 157.90	495 40	
Price, J T	Ranger, " " 6 " 108.33; " 206.60	856 60	
Rae, A	Labourer, " " 3 days 3.00	9 00	
Roynon, T.	Guard, " " 4½ months 90.00; expenses, $198.80	603 80	
Shaw, B.	do " " 2 " 13 d. 75.00; " 83.64	263 88	
Silman, J.	do " " 14 days 75.00; " 2.75	36 62	
Stevens, E.	do " " 4½ months 90.00; " 71.91	476 91	
Strathearn, W B.	do " " 4½ " 100.00; " 203.39	653 39	
Thompson, G W.	do " " 4½ " 90.00; " 188.50	593 50	
Williams, W	do " " 4½ " 100.00; " 121.95	571 95	
Bernhardt, A G.	do Prince Rupert " 3 " 90.00; " 180.00	450 00	
Crew, H O.	Clerk, " " 2 " 75.00	150 00	
Lane, W.	Guard, " " 3 " 17 d. 90.00; expenses, $212.90	532 25	
Lunos, J H.	do " " 3½ " 100.00; " 76.95	426 95	
Marvin, M W	do " " 4½ " 75.00; " 112.25	449 75	
McCorkindale, A.	Ranger, " " 6 " 108.33; " 3.90	653 88	
McKinnon, F A.	Guard, " " 2 " 4 d. 75.00; " 128.00	288 00	
MacPherson, D C	Ranger, " " 1 " 11 d. 100.00	135 48	
MacRae, F.	do " " 6 " 108.33; expenses, $7.00	656 98	
MacRae, D J.	Engineer, "Eva R.," " " 6 " 75.00	450 00	
Robertson, A	Guard, " " 2 " 17 d. 90.00; expenses, $109.99	339 34	
Sandison, W L.	Ranger, " " 6 " 108.33; " 177 50	827 48	
Studdy, J.	Guard, " " 4 " 2 d. 75.00; " 30.80	334 43	
Adams, J	do South Fort George " 4 " 1 d. 75.00; " 120.48	421 70	
Barnett, W.	do " " 5 " 100.00; " 169.75	669 75	
Bateman, J E.	do " " 4 " 12 d. 75.00; " 140.35	468 19	
Baves, G F.	do " " 4 " 13 d. 90.00; " 88.70	487 80	
Bolam, J R.	do " " 4½ " 75.00; " 126.45	463 95	
Boursin, H.	do " " 4 " 3 d. 75.00; " 105.45	411 67	
Brown, A F.	do " " 2 " 27 d. 75.00; " 151.63	366 93	
	Carried forward		31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 298.—Forest Protection Fund.—Continued.		
Colebank, G F	Guard, South Fort George District, 4½ months @ $75.00; expenses, $109.50	447 00	
Condy, R L	Stenographer, " " 2 " 60.00	120 00	
Dowie, E E	Guard, " " 4 " 20 d. 90.00; expenses, $239.55	659 55	
Ellis, S A	do " " 5 " 1 d. 90.00; " 212.20	665 60	
Finlaison, C S	do " " 4 " 90.00; " 171.70	531 70	
Ford, L	do " " 4 " 14 d. 90.00; " 138.35	538 45	
Graham, L	do " " 3 " 14 d. 75.00; " 139.25	398 15	
Hollin, W	do " " 3 " 29 d. 75.00; " 130.75	427 53	
James, C R	do " " 4 " 14 d. 75.00; " 138.90	474 00	
Kynoch, A	do " " 3 " 29 d. 75.00; " 129.55	425 93	
Lavoie, J	Canoeman, " " 12 days 5.00; " 31.15	91 15	
Lawrence, E	Stenographer, " " 5½ " 2.50	13 75	
Little, W H	Guard, " " 4½ months 90.00; expenses, $240.20	645 20	
Lowden, D A	do " " 3 " 26 d. 90.00; " 177.75	524 45	
Moore, W S	do " " 3 " 30 d. 75.00; " 165.15	462 75	
Muir, W L	Ranger, " " 7 " 100.00; " 270.65	970 65	
MacDonald, J G	do " " 7 " 100.00; " 324.13	1,024 13	
McAdams, J P	Guard, " " 3½ " 75.00; " 254.66	517 16	
McCormick, J	Patrolman, " " 6 days 3.00	18 00	
McEwan, R M	Labourer, " " 35 " 3.50	122 50	
McKale, J	Guard, " " 4 mos. 26 d. 90.00; expenses, $99.68	537 78	
McKinnon, A	Foreman, " " 35 days 4.00	140 00	
Pallatt, R M	Acting-Ranger, " " 4½ months 100.00; expenses, $172.15	622 15	
Patterson, A V	Compassman, " " " 2.75	2 75	
Porter, W J	Guard, " " 2½ months @ $75.00; " 63.45	250 95	
Quinn, J	Clerk, " " 2 " 90.00	180 00	
Quinn, J G	Guard, " " 1 " 25 d. 90.00	150 50	
Renshaw, R	do " " 4 " 13 d. 75.00; expenses, $ 88.06	418 32	
Robins, W J	do " " 2 " 26 d. 90.00; " 186.73	442 13	
Roddie, J A	do " " 2 " 12 d. 75.00; " 145.75	324 81	
Sharkey, P	Ranger, " " 7 " 108.33; " 300.50	1,058 81	
Sharkey, T	Guard, " " 6 m. $90; 18 d. 4.00; " 252.75	864 75	
Shives, A K	Forest Assistant, " " " 119.25	119 25	
Smith, J H	Canoeman, " " 4 mos. 1 d. $75.00; " 107.38	408 60	
Smith, W B	Guard, " " 1½ " 75.00; " 127.25	239 75	
Thomas, J	Labourer, " " 35 days 3.50	122 50	
Townshend, G E	Ranger, " " 7 months 108.33; expenses, $241.45	999 76	
Walsh, F G	Guard, " " 4 " 8 d. 75.00; " 205.35	523 51	
Walters, H L	do " " 5 " 4 d. 75.00; " 135.15	520 75	
Williamson, J O	Clerk, " " 4 " 5 d. 90.00; " 12.20	387 20	
Wright, A	Acting-Ranger, " " 3 " 28 d. 100.00; " 124.15	516 09	
Andrews, J	Labourer, Vancouver " 27 hours .30	8 10	
Balmain, S D	Patrolman, " " 43 days 3.00; expenses, $ 4.30	133 30	
Blackstone, J L	Guard, " " 4 mos. 10 d. 75.00; " 21.35	344 40	
Bond, W	Patrolman, " " 96 days 3.00; " .50	288 50	
Carter, G C	Labourer, " " 65 hours .35	22 75	
Chestnut, R H	Acting-Ranger, " " 2 m. $75; 4 m. 90.00; expenses, $39.15	549 15	
Colpitts, S R	Patrolman, " " 102 days 3.00; " 7.50	313 50	
Conant, W C	Guard, " " 4 mos. 3 d. 100.00; " 4.10	412 15	
Conley, G F	Ship's Carpenter, " " 114½ days 2.75	305 95	
Connell, D M	Ranger, " " 6 months 116.66	699 96	
Coville, E	Engineer, "R. J. Skinner," Van. " 5 " 2 d. 75.00	380 00	
Cowie, A	do "Allanbee," " " 6 " 75.00; expenses, $ .75	450 75	
Docksteader, G A	Guard, " " 3 " 4 d. 90.00; " 93.00	375 00	
Dondale, K P	do " " 4 " 9 d. 90.00; " 156.50	541 20	
Edwards, B	Patrolman, " " 6 days 3.00	18 00	
Elder, M	Labourer, " " 3 " 2.50	7 50	
Elsden, H E	Telephone expert, " " 141 " 4.50; expenses, $ 85.45	719 95	
Fairbank, J A	Guard and Patrolman, Vancouver " 4 m. 17 d. $75; 2 d. 3.00; " 67.00	415 50	
Fairman, C E	Guard, Vancouver " 4½ months 90.00; " 111.00	516 00	
Fee, G S	Engineer, "Kiora," " " 6 " 75.00	450 00	
Fletcher, F J	Guard, " " " 4½ " 90.00; expenses, $ 98.00	503 00	
Fulton, A R	Engineer, "Thurston Bay," Van. " 6 " 100.00; " 17.10	617 10	
Goodman, P	Cook, "R. J. Skinner," Vancouver " 1 " 23 d. 60.00	104 50	
Harper, J	Patrolman, Vancouver " 61 days 3.00; expenses, $ 23.40	206 40	
Harris, D	Guard, " " 4 mos. 24 d. 100.00; " 268.70	745 65	
Harris, S	Engineer, "Geraldine R," Van. " 3 " 24 d. 75.00	285 00	
Hicks, J	Patrolman, Vancouver " 39 days 3.00	117 00	
Highet, R	Ship's Husband, " " 6 months 100.00; expenses, $ 10.90	619 90	
Hillis, B	Assistant Ranger, " " 2 " 13 d. 60.00; " 3.50	147 70	
Hurren, D A	Guard, " " 3 " 8 d. 90.00; " 122.75	504 50	
Jamieson, G	do " " 4 " 14 d. 75.00; " 123.32	458 42	
Johnson, I	do " " 6 m. $100; 83 hrs. .40; " 355.25	988 45	
Kennedy, A T	Ranger, " " 2 months 108.33; " 3.00	219 66	
King, P	Patrolman, " " 13 d. $3.00; 75 hrs. .30	61 50	
Lawson, G	Guard " " 4 mos. 17 d. 75.00; expenses, $ 4.05	345 20	
Lawson, J	do " " 3 " 16 d. 75.00; " 132.35	397 35	
	Carried forward	.....	31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 298.—Forest Protection Fund.—Continued.		
Lillie, T W	Guard, Vancouver District, 4½ months @ $100.00; expenses, $ 9.00	459 00	
Lindsay, C A	Patrolman, " " 13 d. $3; 75 hrs. .30	61 50	
Lothian, J J	Engineer, "Mac," & Guard, Van. " 15 d. $3; 4 m. 13 d. 75.00; expenses, $337.85	714 30	
Loukes, J	Guard, " " 3 mos. 16 d. 75.00; " 68.10	333 10	
Lucas, A	do " " 4 " 24 d. 75.00; " 38.50	396 55	
Lukk, H	Patrolman, " " 84 days 3.00; " 49.09	301 09	
Macauley, W W	Engineer, "R. J. Skinner," Van. " 4 months 85.00; " 2.00	342 00	
Mackenzie, R	Patrolman, " " 38 days 3.00	114 00	
Malcolm, N	Labourer, " " 65 hours .35	22 75	
Mars, J	Patrolman, " " 69 days 3.00	207 00	
Mills, R E	Ranger, " " 6 months 90.00; expenses, $290.62	830 62	
Milne, W A	Guard, " " 4 " 8 d. 90.00; " 105.75	487 50	
Mounce, L A	do " " 1 month 75.00; " 27.90	102 90	
Mulroney, J	do " " 4 mos. 5 d. 90.00; " 17.70	393 40	
Murphy, E	Axeman, " " 8½ days 3.50	29 75	
Murray, C W	Guard, " " 4 mos. 10 d. 75.00; " $115.40	438 40	
McKay, F	Master, "R. J. Skinner," Van. " 2 months 105.00; " .20	210 20	
McLean, A H	Ranger, Vancouver " 6 " 114.00; " 48.35	732 85	
McLennan, D	Patrolman, " " 2½ days 3.00	7 50	
Ouimette, D	Cook, "R. J. Skinner," Vancouver " 1 month 2½ d. 60.00	64 83	
Peers, E A	Guard, Vancouver " 5 m. 16 d. $100; 12 d. $4; expenses, $161.38	762 73	
Raper, J	do " " 4 mos. 4 d. 75.00; " 2.00	312 90	
Radford, A H	Patrolman and Cook, " " 59 d. $3; 13 d. 60.00	202 15	
Staff, J	Labourer, " " 27 hours .30	8 10	
Stuart, R V	Ranger, " " 1 m. $100; 5 m. 90.00; expenses, $96.59	646 59	
Thomas, H	Labourer, " " 3½ days 2.50	8 75	
Walters, W E	Patrolman, " " 87 " 3.00	261 00	
Ward, B E	Lineman and Guard " " 6 months 75.00; expenses, $34.90	484 90	
Weeks, E E	Patrolman, " " 16 days 3.00	48 00	
Wetham, W	Labourer, " " 9 hours .30	2 70	
Willett, B	Ranger, " " 6 months 90.00; expenses, $38.80	578 80	
Williams, M C	Engineer, "Geraldine R," Van. " 2 mos. 5 d. 75.00	162 50	
Winegarden, A E	Guard, Vancouver " 4 " 14 d. 75.00; expenses, $21.75	355 45	
Yuill, J S	Ranger, " " 6 months 100.00; " 15.65	615 65	
Allison, G M	Guard, Vernon " 2 mos. 24 d. 90.00; " 136.65	386 32	
Bailey, J M	do " " 4 " 20 d. 90.00; " 212.45	632 45	
Carle, C H	do " " 3 " 22 d. 75.00; " 151.19	430 62	
Haynes, W B	do " " 1 m. 23 d. $100; 2½ m. $90; " 169.20	568 39	
Hazelhurst, R	do " " 4 months 100.00; " 206.60	606 60	
Hogg, R J	do " " 4 m. 7 d. $100; 1 d. $4; " 201.17	626 13	
Mabee, O St C	do " " 3 m. 30 d. $75; 3 d. 3; " 243.65	551 27	
Melrose, G P	District Forester, " " expenses, 52.10	52 10	
Morgan, R E	Guard, " " 5 mos. 2 d. $75.00; " 256.88	636 72	
Murchy, G	do " " 2 " 12 d. 75.00; " 113.67	291 49	
McCluskey, J W	Ranger, " " 6 months 90.00; " 319.95	859 95	
Olson, M	Guard, " " 4½ " 75.00; " 138.00	475 50	
Pinsent, H	Packer, " " 10 hours .25	2 50	
Sutherland, F	Guard, " " 4 mos. 9 d. 100.00; expenses, $230.86	658 27	
Thomas, H H	Ranger, " " 6 months 108.33; " 412.92	1,062 90	
Thompson, W	Labourer, " " 60 hours .30	18 00	
Warner, F	Guard, " " 4 mos. 21 d. 100.00; " $144.17	611 91	
Miller, R C	Ranger, Whitehorse, Y.T. 12 months 5.00; " 22.00	82 00	
Adam Bob (Indian)	Hay	48 30	
Adams River Lbr Co	Equipment for launches, etc.	181 02	
Adamson & Compeau	Livery-hire	3 50	
Adolph Lumber Co	Gasolene	90	
Allison & Co, A P	Shingles	11 00	
Anderson, A	Horse-feed	25 00	
Anderson, G	Gasolene	1 85	
Anderson, E W	Repairing harness	2 00	
Armour, S	Hay	6 00	
Arnott & Hine	Board and rooms, horse-feed, etc.	60 25	
Armstrong Bros	Repairs to launches	25 90	
Arrow Launch Club	Wharfage dues	10 00	
Assman, K	Oats	33 00	
Attree, E	Gasolene	1 80	
Atwood, C H	Team-hire	6 00	
Aubrey, E W	Hay	15 00	
Austin, A	Gasolene	2 85	
Austin Grain Produce Co	Rock salt	20 00	
Bagshawe, E C B	Rowboat	40 00	
Baird, B	Blankets	17 00	
Banting, W J	Rope	1 20	
Barker, A J	Gasolene-tanks	48 00	
Barriere Mercantile Co	Horse-feed	12 50	
Barriere Store	do	9 75	
Beattie, J W	Hire of pack-horses, kettles, etc.	114 15	
	Carried forward		31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 298.—Forest Protection Fund.—Continued.		
Beattie-Murphy Co, Ltd.	Horse-medicine, thermos refills, etc	5 25	
Beaumont, F M	Wintering horses and pasturage	17 00	
Bell, E E	Hay and oats	71 00	
Bell & Co, R B	Provisions	3 80	
Belond, G	Oats	32 00	
Bennett, T	Provisions	62 37	
Bentley, H	Provisions, batteries, etc	41 50	
Bertois, J A	Horse-feed, auto-hire, etc	19 90	
Bird, J A	Telegram	1 25	
Blenkinsop, G	Pasturage, hay, etc	17 00	
Birks & Sons, Ltd	Platinum points	2 00	
Birnie, A	Horse-hire	6 00	
Blackmore, R	Pike-poles	2 50	
Boyd Estate, J	Hay and oats	6 36	
Brackman-Ker Milling Co	Hay, oats, freight, etc	53 18	
Bradburn, W	Meals, launch-hire	11 00	
Bradley & Son, R P	Tar and building paper, gasolene, etc	5 15	
Brand, Mrs W	Rooms, use of stove, cooking-utensils, etc	25 00	
Briggs, M	Windows	6 00	
B C Packers' Association	Provisions, gasolene, oils, batteries, etc	141 80	
B C Telephone Co, Ltd	Exchange services and long-distance tolls	175 60	
Brooks, C H	Catching, care, and feed of horse	1 50	
Brouse Rural Teleph Co	6 batteries	3 00	
Browne & Pidgeon	Freightage, launch-hire, meals, etc	116 60	
Bull, H A	Provisions and gasolene	37 05	
Burns & Co, Ltd, P	Meat	45 21	
Burns & Son, J	Window-sashes	3 00	
Burns Lake Tdg & Lbr Co	Provisions, lumber, hardware, etc	103 90	
Butorac, M	Transporting men and tools	15 00	
Byers-Giegerich-Green Co	Horse-feed	9 55	
Calwell, H	Prepaid freight	4 90	
Campbell, D D	Provisions	9 90	
Campbell's Estate,	Rock salt	3 69	
Campbell River Tdg Co	Provisions	9 40	
Can Engine & Supply Co	Gears for Evinrudes	24 43	
Canadian Express Co	Expressage	64 46	
Can Fairbanks-Morse Co	Velocipede cars with tool-kits, equipment for launches, etc	420 75	
Canadian Pacific Ry Co	Telegrams, $235.45; freight, $61.88	297 33	
Cannon, F	Freight on gasolene	25 00	
Carroll, R M	Packing oil	1 00	
Carson, W G	Hay and pasturage	106 00	
Carter Electric Co	Storage-battery, electrolite, magneto, etc	57 51	
Casebeer, H	Flat-bottom boat	25 00	
Cascade Steam Laundry	Laundry	1 95	
Casorso Bros	Meat	65	
Causeway Boat House	Towing launch, moorage, rope, etc	10 00	
Cawley, H W	Provisions	16 83	
Chapman, C	Hay and oats	521 50	
Chapman, J	Oats, freight, etc	9 65	
Chapman & Smith	Cylinder-oil	2 50	
Chappell Bros	Equipment and repairs to launches, wharfage, etc	161 57	
Chilliwack Telephone Co	Rent of phone	9 50	
City of Kamloops	Electric light	2 00	
City Livery, Cranbrook	Livery-hire	32 50	
City Trans & W'house Co	Cartage	50 01	
City of Vernon	Tree-insulators	4 32	
Clifford, J W	Blacksmithing	14 75	
Cochrane, D	Gasolene, oil, batteries, etc	70 60	
Collins, J M	Freight	2 25	
Colquhoun, W H	Provisions	20 15	
Comstock, W R	Transportation	40	
Cookson, D	Recovering lost horse	5 00	
Cooper, F	Provisions	19 55	
Craig, W W	Auto-hire	16 00	
Cranbrook Electric L Co	Electric-light and battery	3 45	
Cranbrook Sash & D Co	V-joint	60	
Crawford Bay Farm Inst	Horse-feed	26 40	
Creston Power, L & T Co	Rent of phone, Goat Mountain	24 00	
Cronin, C	Horse-hire	12 08	
Cunningham & Son, Ltd	Provisions, hardware, paint, etc	133 40	
Curry, V D	Hay, oats, and freight	39 85	
Curry & Smith	do	58 37	
Dafoe, V M	Equipment and repairs to launch, crank-shaft for ranger-station	78 20	
D'Arcy, E	Cartage	2 75	
Dawley, W T	Provisions, gasolene, batteries, etc	102 08	
Deeley, F	Welding and freight	1 70	
Dearduff, E	Grindstone	4 00	
	Carried forward		31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 298.—Forest Protection Fund.—Continued.		
Deighton, A G	Provisions, gasolene, batteries, etc	363 50	
Demuth, F	Lumber	7 20	
Deshields, J	Repairs to tent	1 00	
Dezall, F	Blacksmithing	5 75	
Dickinsons & Sons	Axe	1 00	
Dominion Express Co	Expressage	19 35	
Dom Govt Telegraphs	Telegrams	369 40	
Dominion Laundry	Laundry	4 90	
Donley, R	Provisions, distillate	27 31	
Dowie, E E	Wintering horses	120 00	
Draney Fisheries, Ltd	Gasolene, batteries, grease, etc	160 05	
Duke's Grocery	Provisions	82 20	
Dunseith, W J	Provisions, gasolene, etc	375 70	
Eagleson, M R	Office-rent	15 00	
Edgewood Lumber Co	Cartage of gasolene, prepaid freight	5 36	
Edwards, E H	Rent of phone	3 00	
Edwards, F	Catching horse	3 00	
Elder Bros	Loading and transporting launch	30 00	
Elec Repairing & Eng Co	Equipment for launch	10 55	
Elliott, A B	Provisions	7 60	
Ellis, A	do	2 40	
Ellis, S	Supplying and erecting telephone-pole	5 00	
Evans, Coleman & Evans	Coal	1 00	
Fahrenkoph, J J	Horse-hire	2 50	
Finlaison, C S	Haulage	116 00	
Fisher, J	Horse-hire	14 50	
Fleming, R	Launch-hire	27 50	
Fletcher & Holt	Oats	10 00	
Forest, G	Crating engine casting	1 00	
Fort Fraser Merch Co	Provisions	12 90	
Ft George & Alta Tel Co	Telephone rental and telegrams	130 69	
Fort George Drug Co	Horse-medicine, etc	4 80	
Fort George Hdwre Co	Taper pipes	1 00	
Fort Steele Tdg Co, Ltd	Axe and file	1 75	
Fraser, H	Box for storing tools	7 00	
Fraser, R	Provisions, horse-feed, freight, etc	103 78	
Fraser & Co, Ltd, J A	Hay, oats, and hardware	19 40	
Freeman, H K	Launch-hire	20 00	
Fyfe-Smith Co, Ltd, J	Lumber	5 26	
Gagne, J	Hire of tent and team	5 00	
Galhenne, W E	Provisions, livery-hire	36 55	
Garvey, R J	Hauling tools, etc	3 00	
Gateway Mercantile Co	Gasolene	3 21	
Geair, W	Hauling supplies	5 25	
Giddens, H J	Janitor service	5 00	
Glover, G M	Haulage	5 00	
Gollen, G	Equipment for launch	7 90	
Gonsalves & Dames	Provisions, distillate, gasolene, etc	369 12	
Goodman Supply Co	Hardware, gasolene, batteries	9 45	
Gordon & Grant	Oats	33 00	
Gosse-Millerd Pkg Co, Ld	Provisions, gasolene, distillate, etc	460 80	
Granby Cons Mining & Smelting Co, Ltd	Gasolene, batteries, plugs	106 00	
Grand Forks Garage Co	Tire	17 40	
G T P Railway Co	Freight	73 52	
G T Pacific Telegraph Co	Telegrams	28 86	
Gravel, A	Auto-hire	4 00	
G N W Telegraph Co	Telegrams	5 74	
Greer & Co, J	Gasolene	1 55	
Grierson, S	Cartage and prepaid freight	47 31	
Griffin, W B	Cartage and paid express	1 60	
Guggenhim, J	Catching horses	3 00	
Gurney Foundry Co, Ltd	Parts for range	7 45	
Guss, J	Buda gasolene motor-car, for use on railway-lines	90 00	
Hall Machine Works	Cutting-gear	1 25	
Hamilton, E	Storage of launch, pumping, etc	21 00	
Hamilton, G G	Wintering horses	75 00	
Hanson Garage	Tires, storage of car, grease	46 45	
Harper, F	Hardware and lumber	30 33	
Harris, G	Hauling canoe	1 00	
Harrison & Co	Repairing barometer	3 00	
Harvey & Bailey, Ltd	Oats	35 00	
Haslam, V G	Towing launch, room and board, etc	9 00	
Heal & Glover	Gasolene	4 80	
Hediger, J	Hay	29 85	
Henniger, E C	Oats and bran	6 95	
Heywood, G E	Hauling hay	3 00	
	Carried forward	.....	31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 298.—Forest Protection Fund.—Continued.		
Hickman-Tye Hdwre Co.	Hardware	2 91	
Highet, Mrs R	Meals	190 00	
Hinchen, S	Painting launch	6 00	
Hober, J W	Provisions, hardware, paint, etc	51 70	
Hogan, A H	Repairs to launch	6 00	
Hoods, Ltd	Provisions	313 25	
Howe & McNulty	Batteries, plugs	11 10	
Howison, J W	Rope and blocks	6 60	
Hudson's Bay Co	Table-cloths, towels, polarine, provisions, etc	118 86	
Huff's Garage	Batteries	3 00	
Hughes, O B	Pasturage	1 50	
Hume & Co, C B	Hay and oats	41 81	
Hunt & Miller	Provisions	7 80	
Ideal Mfg Co	Shovel and postage	2 48	
Imperial Oil Co, Ltd	Gasolene, mobiloil, distillate, etc	3,284 91	
Inkman, C	Provisions, gasolene, etc	126 10	
Inland Express Co	Expressage	2 50	
Interior News	Printing	12 24	
Jackson, F H	Provisions and hardware	30 25	
James, F	Wintering horses	40 00	
Jeffrey, F	Hauling tools	6 00	
Jenkins & Co, Ltd, M	Livery-hire	8 00	
Jenzie, F	Wintering horses	75 00	
Johnston, F J	Hire of harness	4 50	
Johnston, J M	Axe, gasolene, and polarine	4 95	
Jones & Son, Ltd, C H	Cushion-tops, mattress-slips, curtains, etc	32 90	
Jordan, G W	Towing boat-house	12 50	
Joy Bros	Provisions	6 15	
Kaleden Supply Co	do	12 25	
Kamloops Feed & Flour Supply	Hay and oats	15 90	
Kamloops Transfer Co	Expressage	1 75	
Kennard, H B	Provisions	6 35	
Kennedy, Blair & Co, Ltd	Hardware, provisions, cutlery, crockery, etc	140 05	
Kerr, G A	do etc	3 40	
Kindel, A	Blacksmithing	16 00	
King's Printer	Posters, typewriter, stationery, etc	1,645 18	
Kobayash, K	Rowboat	35 00	
Kootenay Tel Lines, Ltd	Rental of phones and long-distance tolls	73 25	
Lamb, H L	Transportation of men and tools, filing saw	22 00	
Lake Launch & Motor Works	Repairs to launch, gasolene, oils, grease, etc	104 40	
La Salle, J	Improving and repairing Goat River Trail	126 00	
Latham, J	Hauling hay	7 50	
Lawrence Hardware Co	Rope and locks	2 40	
Lazelle Co, F	Hardware, rope	17 75	
Lee, R H	Office-rent, 2 months	70 00	
Leece, G	Horse-hire	3 50	
Leith Bros	Hardware, leather-straps, etc	10 65	
Linton & Co, A	Rowboat, dinghy, oars, and repairs to launch	102 60	
Lipsett, E	Covers for launch	2 75	
Lister, J	Hay	37 25	
Little, G	Hay, oats, provisions, lumber, etc	129 23	
Little, J	Compensation for injuries received while fire-fighting	75 00	
London Grocery Co, Ltd	Provisions	59 65	
London & B N America Co, Ltd	3 maps of New Westminster District	3 00	
Long, W R	Packing supplies, skidding logs, etc	24 75	
Magoon, W	Repairs to launch	6 00	
Manning, Ltd, I R	Provisions	72 80	
Mansfield, D	Care of launch, team-hire	10 00	
Manta, S	Laundry	4 00	
Maple Leaf Bakery	Provisions	53 30	
Marlatt & MacKenzie	Hardware	38 50	
Marshall-Wells Alta Co	Pumps, cow-bells, straps, etc	86 83	
Martin, J	Gasolene and distillate	17 60	
Matthie & Handforth	Batteries for speeder	17 60	
Mearon, S	Blacksmithing	29 00	
Megaw, W R	Provisions, gasolene, hardware, etc	115 55	
Megaw Motor Co	Tire, dry cells, plugs	27 50	
Mellard, W R	Oats	10 50	
Melville, D B	do	20 30	
Millen & Son, Ltd, J	Coil contacts, coil springs, points, etc	7 67	
Miller, A	Hay and oats	4 48	
Miller, J H	Hay	3 00	
Mills & McAdam	Provisions	7 68	
Milne, S	Team-hire	6 00	
	Carried forward		31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 298.—Forest Protection Fund,—Continued.		
Milton, J	Oats	5 14	
Minton & Bean	Gasolene, oil, grease	114 11	
Molliet & Finley	Oats	3 95	
Motor Boat Transp Co	Freight	11 50	
Mount Pleasant Garage	Casings and tubes for auto	90 00	
Mulgowd, J	Hay	20 20	
Munro, Ltd, J	Provisions, towels, etc	31 60	
Murphy, J P	Pasturage	56 00	
Murray, N	Expenses, attending fire-protection meeting at Victoria	38 45	
McBride, J D	Hardware, rubberoid, sashes, etc	26 00	
McBride Trading Co	Gasolene, batteries	5 50	
McCall, R	Provisions	36 56	
McCannell, J	Livery-hire	10 50	
McCartney, S J	Provisions, hardware, etc	87 72	
McClary Mfg Co	Stove, pipe, etc	16 61	
McConnell, A	Gasolene, oil, grease, provisions, etc	352 87	
McCorkell Bros	Hay and freight	265 59	
McCready, W	Repairs to propeller-shaft	1 50	
McCuddy, A H	Auto-hire	10 00	
McDonald, P	Provisions, batteries, coal-oil, etc	811 55	
McDonald & Peppard	Blacksmithing	5 00	
McDonnell, R J	Rent of stable 4 months @ $10	40 00	
McDougall, J D	Climbers, set-straps, and belts	6 40	
McEachern, J	Hire of pack-horses and packer	18 00	
McGillivray, C	Pasturage and hay	39 40	
McInnes, F	Freight	6 00	
McIntyre & Bignell	Batteries, gasolene	5 35	
McKeen, H E	Blacksmithing	91 75	
McKinnon Htg & P Co	Gas-tank	10 50	
McKnight, D	Hay	12 00	
McLean, C	Horse-hire	6 00	
McLean, D R, V S	Horse treatment, medicine, etc	6 25	
McLennan, J	Wintering horses, hay, haulage	109 75	
McNeil, B H	Oats	12 00	
McNeish, T	Groceries	8 84	
McQuillan, R	Livery-hire	14 00	
McRae Bros	Chart	1 75	
McTaggart, W	Hardware, oats	6 30	
McTavish Bros	Duty, brokerage	2 20	
Nakusp Tdg Co	Gasolene	111 11	
Nanwold, Mrs B	Meals and beds	11 50	
Nechako Stables	Horse-feed	9 60	
Neil & Cryderman	do blacksmithing, cartage	30 00	
Nelson Hardware Co	Hardware	28 86	
Nelson Motor Supply Co	do batteries, gasolene, etc	38 25	
Nelson Transfer Co	Livery-hire	10 75	
Newsom, J	Provisions	100 25	
Niebergall, C	Horse-hire	2 25	
Noel, A F	Pasturage	8 10	
Northern Electric Co	Insulators, batteries, wire, thimbles, etc	100 44	
Northern Lbr & Mer Co	Lumber, hardware, dry cells, etc	151 03	
Northern Telephone Co	Rent of phone, dry cells, insulators	33 51	
Nor Tel & Power Co, Ltd	Electric light	3 50	
Okanagan Grocery	Provisions	1 80	
Okanagan Telephone Co	Rental and long-distance tolls, $42.30; rental of 162 telephone-poles @ 30c. per contact, from September 1st, 1914, to October 31st, 1916, $97.20	139 50	
Omineca Herald	Advertisement	9 84	
Omineca Miner	do	11 88	
Pac G E Railway Co	Freight	22 41	
Pacific Mills, Ltd	Provisions, distillate, etc	193 99	
Paine, E R	Paint, brushes, batteries, etc	51 90	
Paine & McMillan, Ltd	Cooking-utensils, hardware, etc	7 90	
Palace Livery, Revelstoke	Horse-feed, pasturage, freight and blacksmithing	410 60	
Palace Livery, Courtenay	Livery-hire	7 50	
Palmer, E J	Expenses, attending fire-protection meeting at Victoria	13 05	
Parkin & Ward Electric Co, Ltd	Evinrude motor, storage-battery, plugs, etc	137 84	
Pascoe's Wharf	Wharfage, repairs to launch	21 70	
Paull & McDonald	Repairing clock	1 00	
Peace River Trading & Land Co, Ltd	Provisions, hardware	87 90	
Penney, W	Bread	7 00	
Peters, E S	Wintering horses	168 00	
Peterson, L	Freight	2 70	
Peterson, P H	Medicine and horse treatment	6 00	
Phair, C A	Provisions, hardware	145 80	
	Carried forward		31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 298.—Forest Protection Fund.—Continued.		
Pioneer Feed, Coal & Oil Co	Gasolene, distillate	84 65	
Pitts, J C	do	2 25	
Pollard, Mrs J	Hay	26 45	
Porter, M	Hay, tar-paper, hardware	59 58	
Porter Hay & Grain Co	Hay, oats, bran	309 35	
Postill, G	Care and feed of horse	13 00	
Postmaster, Bella Coola	Postage-stamps	1 00	
do Cranbrook	do	75 00	
do Hazelton	do	35 00	
do Kamloops	do and rent of box	16 90	
do Lillooet	do do	22 25	
do Nanu	do	1 00	
do Nelson	do	75 00	
do Ocean Falls	do	1 50	
do Pr Rupert	do and rent of box	52 00	
do Quesnel	do	20 00	
do S Ft George	do and rent of box	108 00	
do Vancouver	do	280 00	
do Vernon	do	41 00	
Powell River Co, Ltd	Provisions, gasolene, batteries, hardware, etc	226 78	
Preston, W	Livery-hire	8 00	
Priestley, A F	Provisions, horse-feed	107 35	
Prince, J	Boat and freight	14 20	
Progressive Steamboat Co	Freight	298 92	
Prosser & Manson	Meat	9 20	
Pugh, S	Repairs to telephone, testing line, etc	9 35	
Punch (Indian)	Catching horses	3 00	
Quail, J D	Hardware and rope	3 35	
Quinlan, W J	Postage-stamps	1 00	
Rae, J M	Hay and oats	42 50	
Rankin & Cherrill	Repairs to generator	1 75	
Raper, J	Horse-hire	4 00	
Ratcliffe Bros	Gasolene, storage	5 35	
Ray, J	Freighting	8 00	
Rebagliati, P	Expressage	60	
Reeves, C E	Provisions	16 30	
Reid Bros	Blacksmithing	7 50	
Reid & Co	Gasolene	7 20	
Revelstoke Hardware Co	Batteries, crockery, cutlery, etc	25 35	
Ritchie, W S	Blacksmithing	10 00	
Robertson & Hackett	Lumber	57 40	
Rollins, C	Repairs to launch	31 20	
Rolston, D R	Provisions, hardware, etc	116 12	
Ross, T	Hauling supplies	6 72	
Ross-Saskatoon Lumber Co, Ltd	Provisions, gasolene	45 90	
Royal Standard Grain Products Agency	Hay and oats	7 95	
Royal Transfer Co	Cartage	8 80	
Ruddy & MacKay	Livery-hire, cartage, blacksmithing, etc	71 51	
Rush Transfer & Storage	Haulage	2 00	
Russell, J	Pasturage	1 50	
St Alice Hotel	Room and board, gasolene, stage fares, etc	67 65	
Salisbury, W R	Hauling tools and supplies	16 50	
Salmo Trading Co	Provisions	23 95	
Sanderson, C	do	28 05	
Sandison, C C	do	3 00	
Santini & Co, P	do	72 75	
Sargent, Ltd, R S	do hardware, office-rent, etc	167 34	
Scott, D C	do	44 45	
Scott & Peden	Hay and oats	69 20	
Sechelt Trading Co	Provisions, hardware, etc	87 80	
Sears, A A	Evinrude engine and motor, parts for launches, etc	338 25	
Seebach & Huble	Boat, gasolene, freight, etc	52 50	
Seibel, A	Hay	12 00	
Shields, S L	Blacksmithing	4 00	
Shields & Co	Provisions	20 60	
Similkameen Garage	Tire	21 00	
Simms, Mrs	Lunches	8 25	
Simson, Balkwill & Co, Ltd	Supplies and equipment for launches and ranger-stations	834 87	
Simpson, W	Provisions, building material, etc	101 66	
Skeena River Co-op Asso	Provisions	50 85	
Sloan, G	Horse and man, 2 days	8 00	
Smith, Mrs G W	Green feed	6 00	
Smith-Curtis Stock Co	Pasturage	3 15	
Speers, S A	Padlock	1 00	
Stabbler, Mrs	Oats	10 00	
	Carried forward	.....	31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward	.....	31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 298.—Forest Protection Fund.—Concluded.		
Star Grocery	Provisions	13 65	
Stelly & Geiger	Meals, hardware, postage-stamps, etc	12 60	
Stewart, P	Boat-hook, casting, key for drive-wheel on launch	4 00	
Storey & Campbell	Repairs to harness	1 00	
Strathern, O	Hay and oats	6 35	
Stuart Lake Tdg Co	Keep of horse, freight	8 00	
Sumner Metal Works	Propellers, bushings, pulley, etc	94 90	
Sutherland, J P	Cartage	7 50	
Sutherland, W	Horse-hire	8 00	
Taylor, A C	Postage-stamps	48 10	
Terrace Rural Tel Co	Rent of phone, batteries, etc	12 84	
Thomas Bros	Provisions	11 60	
Thompson, W	Provisions and gasolene	17 80	
Thompson, E L	Oats	29 05	
Thompson, J	Repairs to launch	2 50	
Thomson Stationery Co	Log-book and chart	1 85	
Thulin Bros	Postage-stamps, stationery, provisions, etc	94 95	
Trites-Wood Co, Ltd	Provisions	33 95	
Turner, Beeton & Co, Ld	Canvas water buckets and bags	34 50	
Unionist Invest Co, Ltd	Gasolene	1 80	
Up-to-Date Drug Store	Horse-medicines	11 80	
Vancouver Lumber Co	Lumber	49 03	
Van Mach Depot, Ltd	Igniter-tips	7 50	
V P R Meat Co, Ltd	Meat	5 53	
Vernon Fruit Union	Hay	5 45	
Vernon Hardware Co	Hardware	13 65	
Victoria Mach Depot	Repairs to launch, towage	63 45	
Victoria Transfer Co	Livery-hire	5 00	
Vigor, J	do	6 00	
Wade, J A	Provisions	1 65	
Wagstaff & Vestrup	Hardware, coal-oil, etc	17 50	
Wallace Fisheries	do	4 80	
Wardlaw, D	Board and rooms	6 00	
Warner, Mrs F C	Provisions	5 80	
Watkinson, F	Horse-feed	11 00	
Watkinson, M	Veterinary services	5 00	
Watson, D	Painting name-boards on launch	2 00	
Way, A	Fairbanks-Morse marine engine, shafting, propeller-wheel, etc	156 00	
Webster, A C	Gasolene	8 00	
Welsh, P	2 railway hand-speeders, logging-chains, etc	40 75	
Western Specialty Co, Ld	Ledger	3 50	
White, A J	Potatoes	1 00	
Whitney, E E	Blacksmithing	11 25	
Widman, C	Transporting boat	5 00	
Williams, J	Repairs to speeder and engine	9 00	
Williams & Cole	Peroxide	1 00	
Willows Hotel	Meals	1 00	
Winn & Son	Provisions, gasolene, grease, etc	107 50	
Wittner, J	Repairs to harness	4 55	
Wohlschlegl, G	Moving tent-frame	3 00	
Wollen, J G D	Black gelding	50 00	
Wood, W	Horse-hire	9 00	
Wood, Vallance & Leggat, Ltd	Hardware, dry cells, heater, etc	25 97	
Woodworth, J B	Hardware, etc	16 61	
Worden, W E	Horse-feed, pasturage, freight, etc	29 75	
Wyckoff, W	Gasolene	2 00	
Yahk Hotel	Board and horse-feed	16 75	
Yates, G R	Potatoes	2 00	
Yingling, M	Taking launch from water	1 50	
Yorston Bros	Hay	40 00	
Yukon Telegraph & Tel	Rent of phone	7 50	
		156,570 93	
	Cr. Refunds	1,447 34	
		155,123 59	
	Cr. By transfer from Forest Protection Fund, current account	155,123 59	
		.....	.....
	Carried forward	.....	31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 299.—Miscellaneous (including Transport, Salaries of Temporary Staff, Upkeep of Boats, Incidental Expenses, etc.).		
Cuthert, J	Packer, Clinton District, 13 days @ $2.50	32 50	
Le Mare, P	District Forester, " " ; expenses	402 25	
McLean, J K	Ranger, " " "	270 25	
Bayle, G J	Check Scaler, Cranbrook " " "	76 45	
Duff, A	Clerk, " " "	7 90	
Hart, J C	Ranger, " " "	278 58	
Kelly, W L	Check Scaler, " " "	425 20	
Miller, A	Acting-Ranger, " " "	177 95	
Murray, H B	District Forester, " " "	479 55	
Pym, F H	Ranger, " " "	25 80	
Watson, G B	do " " "	265 77	
Allen, R E	District Forester, Hazelton " "	219 15	
Chettleburgh, F B	Ranger, " " "	84 65	
Dover, G	do " " "	44 30	
Grant, A M	Stenographer, " " 2 months @ $60.00	120 00	
Kelly, E	Labourer, " " 19 days 3.25 ; expenses, $19.00	80 75	
Lathom, J	Ranger, " " horse allowance	12 50	
Galbraith, D A	Scaler, Islands " expenses	177 00	
Hanna, J F	Cruiser, " " 5 months @ $125.00 ; " $169.50	794 50	
Kidd, P	Captain, "Export Patrol," Islands " 12 m. @ $100 ; launch allowance, $65.00 ; subsistence and expenses, 268.35	1,833 35	
Marshall, J F	Scaler, Islands " "	359 75	
Parker, J	Stenographer, " " 11 months @ $60.00	660 00	
Stilwell, J E	Ranger, " " expenses	48 55	
Bonney, P S	District Forester, Kamloops " "	48 50	
Cowan, D	Acting-Ranger, " " "	5 75	
Giddens, H J	Janitor, " " 7 months @ $ 5.00	35 00	
Holliday, W	Act.-Ranger & labourer, Kamloops " 1 month 75.00 ; expenses, $54.05	129 05	
Keyes, G	Ranger, Kamloops " "	352 35	
Miller, D	Janitor, " " 4 months @ $5.00	20 00	
Mills, C R	Act.-District Forester, Kamloops " expenses	472 20	
Trinder, R	Check Scaler, Kamloops "	429 30	
Wilkinson, R	Labourer, " " 20 days @ $75.00	50 00	
Black, A M	Ranger, Nelson " expenses	121 45	
Mix, C A	do " " "	279 15	
Nelson, H S	do " " "	266 75	
Price, J T	do " " "	190 15	
Prowd, E B	Act.-District Forester, Nelson " "	158 16	
Stevens, E	Packer and Guide, Nelson " 14 days @ $3.00 ; " $19.08	61 08	
Winter, E M	Stenographer, " " 2 " 2.00	4 00	
Wright, E L	Clerk, " " 11 " 3.00	33 00	
Allen, R E	District Forester, Prince Rupert " expenses	17 70	
Archie, D	Master, "Leila R," " " 12 months @ $100.00	1,200 00	
Cameron, A C	Scaler, " "	15 50	
Cohoon, E O	Engineer, "Eva R," " " 21 days @ $75.00	50 80	
Colley, T W	do " " 5 mos. 11 d. 75.00	401 62	
Derry, F	Gen. Asst., "Leila R," P. Rupert, " 12 " 75.00 ; expenses, $6.85	906 85	
Irwin, H S	District Forester, " " "	25 30	
Murphy, J	Engineer, "Euclataw," " " 1 month @ $90.00 ;	90 00	
MacRae, F	Ranger, " " expenses	15 15	
Penney, W	Engineer, "Leila R," " " 12 months @ $90.00 ; " $17.60	1,097 60	
Barnett, W	Compassman, South Fort George " 63 days 2.50 ; " 7.95	165 45	
Condy, Mrs R L	Stenographer, " " 10 months 60.00	600 00	
Ellis, S A	Packer, " " 1 day 3.00	3 00	
Forbes, G	Compassman, " " 43 days 2.50 ; expenses, $5.90	113 40	
Jackson, G	Cook, " " 42 " 2.50 ; " 1.90	106 90	
Marshall, E	Compassman, " " 29 " 2.50 ; " 6.40	78 90	
Marvin, H G	District Forrester, " " expenses	182 40	
Muir, L	Ranger, " " "	12 50	
MacDonald, J G	do " " "	95 50	
Patterson, A V	Compassman, " " 51½ days @ $2.50	128 75	
Pederson, M	do " " 2 " 2.50	5 00	
Sharkey, P	Ranger, " " expenses	188 55	
Sharkey, T	Labourer, " " expenses and allowance	35 00	
Shives, A K	Forest Assistant, " "	203 95	
Townshend, G E	Compassman, " " 5 days @ $3.00 ;	15 00	
Weis, J	Janitor, " " 24 hours .25 ;	6 00	
Williamson, J O	Clerk and Compassman, South Fort George District, 1 month $90 ; 44 days @ $2.50 ; expenses, $20.60	220 60	
Allison, A P	Acting Scaler, Vancouver District Scaling fees	14 80	
Archer, L H	Stenographer, " " 29 days @ $ 2.00 ;	58 00	
Archer, W H	Ranger's Assistant " " 9 mos. 12 d. 75.00 ;	705 00	
Armishaw, J E	Cook "Euclataw," " " 12 days 60.00 ;	23 75	
Bentley, H	Labourer, " " 14 " 2.50 ;	35 00	
Blakley, R H	do " " 1⅓ " 3.00 ;	4 00	
Blampin, W	do " " 1⅓ " 3.00 ;	4 00	
	Carried forward	.....	31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward		31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 299.—Miscellaneous (including Transport, Salaries of Temporary Staff, Upkeep of Boats, Incidental Expenses, etc.).—Continued.		
Broadhurst, G	Assistant Lineman, Vancouver District, 1 day @ $3.00	3 00	
Bryant, A L	Supervisor of Scalers, " " expenses	87 80	
Cameron, A	Scaler, Vancouver " " "	221 80	
Campbell, J	Labourer, " " 4 days @ $ 3.00	12 00	
Campbell, K M	Stenographer, " " 26 " 65.00	54 50	
Carter, H J	Acting Scaler, " " scaling fees	48 43	
Chestnut, R H	Ranger, " " expenses	24 60	
Clark, J S	Tallyman, " " 4 days @ $ 5.00	20 00	
Conley, G F	Ship's Carpenter, " " 25 " 2.75	68 75	
Connell, D M	Acting Deputy District Forester, Vancouver District ex. and allowance	230 45	
Coville, E	Engineer, "R. J. Skinner," Van. District 6 months @ $75.00; expenses, $5.55	455 55	
Cowie, A	Engineer, "Alanbee," Vancouver " 5 " 75.00	375 00	
Cummings, A	Watchman, Vancouver " 15 days 75.00	37 50	
Dunning, A E	Scaler, " "	135 40	
Durrell, J N	do " "	126 90	
Elsden, H E	Telephone Expert, " " 5 m. @ $100; 29 d. $4.50; expenses, $129.20	759 70	
Fairbank, J A	Engineer "Geraldine R" and Marker, Van. Dist. 11 days 3.00; " 8.00	41 00	
Fay, E B	Watchman, Vancouver District, 39 days 2.00;	78 00	
Fee, G S	Engineer "Kiora," " " 6 months 75.00	450 00	
Fee, J B	Clerk, " " expenses	15 20	
Flumerfelt, W R	Cruiser, " " 5 months @ $102.00; " $199.15	709 15	
Fulton, A R	Engineer, Thurston Bay, Van. " 6 " 100.00	600 00	
Galbraith, D A	Scaler, Vancouver " expenses	8 90	
Garrett, A	do " " "	138 60	
Garven, V	Carpenter, " " 3 days @ $ 4.00	12 00	
Gonsalves, A	Engineer, "Euclataw," Vancouver " 8 months 75.00	600 00	
Goodman, P	Cook, "R. J. Skinner, " " 2 " 25 d. 60.00	168 39	
Hanna, J F	Cruiser, Vancouver " 7 " 125.00; expenses, $168.80	1,043 80	
Harris, S	Engineer, "Euclataw," Van. " 15 d. $100; 5 m. 20 d. $75; " $7.50	480 88	
Henry, T	Scaler, Vancouver " " "	141 45	
Higbet, R	Ship's Husband, " " 6 months @ $100.00; " $6.00	606 00	
Hillis, J M	Scaler, " " "	134 75	
Johnston, L W	Cook, "R. J. Skinner," Vancouver " 3 mos. 6 d. @ $60.00;	191 61	
Kennedy, A T	Scaler, Vancouver " expenses	131 50	
Kenny, B	Labourer, " " 1⅓ days $ 3.00	4 00	
Lawson, G	Engineer, "Eunice B," Vancouver " 6 months 75.00	450 00	
Leckie, I	Stenographer, Vancouver " 5 " 60.00	300 00	
Lothian, J J	Eng'r, "Jean L" and "Geraldine R," Van. Dist., 5 m. 15 d. 75.00; expenses, $37.45	449 95	
Lucas, A	Pilot, Vancouver District, 23 days 75.00; " 8.60	64 30	
Macauley, W W	Engineer, "R. J. Skinner," Van. " 8 months 85.00; " 4.15	684 15	
Macfarlane, M E R	Clerk, " " 4 " 27 d. 75.00	367 50	
Mackay, J	Accountant, " " expenses	13 80	
Marshall, C H	Acting-Scaler, " " 10 mos. 14 d. $100.00; " $255.65	1,300 81	
Mills, R E	Ranger, " " "	185 97	
Morrison, M K	Captain, "Euclataw," Vancouver " 12 months @ $110.00; " $ 20.15	1,340 15	
Mounce, L A	Checker, Vancouver " 11 " 75.00; " 313.55	1,138 55	
McCullough, F	Painter, " " 11 days 3.00	33 00	
McHugh, J	Assistant Lineman, etc., Van. " 2⅓ " 3.00	7 00	
McKay, F	Captain, "R. J. Skinner," " " 1 month 105.00	105 00	
McKay, G D	District Forester, Vancouver " expenses	186 15	
McKay, G R	Scaler, " " "	115 75	
McKee, T L	Acting-Scaler, " " scaling fees	75 57	
McLeod, A	Cook, "Euclataw," " " 5 months @ $60.00	300 00	
MacRae, J A	Scaler, " " expenses	107 75	
McLean, A H	Ranger, " " "	59 50	
McLean, J	Scaler, " " "	184 90	
McLeod, J T	do " " "	29 50	
McPhee, J	do " " "	169 45	
MacRae, F	do " " "	94 15	
Noot, J R	Acting-Ranger, " " 1 month 5 d. $90.00	106 05	
Ouimette, D	Cook, "R. J. Skinner," Vancouver " 1 " 2 d. 60.00	64 00	
Parr, E	Compassman, Vancouver " 14 days 3.00	42 00	
Perry, J O	Watchman, " " 12 months 75.00	900 00	
Peters, C	Packer, " " 10 hours .30	3 00	
Peters, T	do " " 5 " .30	1 50	
Rockwell, J H	Machinist, " " 3 days 4.00	12 00	
Root, A B	Cruiser, " " 97 " 4.00	388 00	
Scott, L	Cook, "Euclataw," " " 5 months 60.00; expenses, $7.60	307 60	
Simpson, A	Acting-Scaler, " " scaling fees	56 48	
Smith, A J J	Labourer, " " 1 day @ $2.50	2 50	
Smith, G Y	Compassman, " "	2 00	
Stephens, S	Cook, "Euclataw," " " 1 month @ $50.00	50 00	
Stuart, R V	Ranger, " " expenses	63 65	
Thomas, E R	Scaler, " " "	233 50	
Ward, B	Lineman, " " 3 days @ $3.00;	9 00	
	Carried forward		31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 299.—Miscellaneous (including Transport, Salaries of Temporary Staff, Upkeep of Boats, Incidental Expenses, etc.).—Continued.		
Wastell, A M	Acting-Scaler, Vancouver District ..... scaling fee	136 68	
Yuill, J S	Ranger, " " ..... expenses	49 80	
Branch, B H	Clerk, Vernon " 41 hours @ $0.25; " $2.65	12 90	
Harris, E	Carpenter, " " 12 " .30	3 60	
Hyatt, E	Labourer, " " 27 " .25	6 75	
Melrose, G P	District Forester, " " ..... expenses	707 69	
Murchy, G C	Packer, etc., " " 56 days @ $2.50; " $3.00	143 00	
McCluskey, J W	Ranger, " " ..... "	323 70	
Price, J T	do " " ..... "	22 00	
Thomas, H H	do " " ..... "	225 80	
Barclay, S W	Acting Assistant Forester, Victoria " ..... "	13 45	
Beale, L B	Eastern Lumber Commissioner " " 1 month @ $125.00	125 00	
Benedict, R E	Assistant Forester, Victoria " ..... expenses	89 22	
Brown, Mrs H(nee Jagers)	Stenographer, " " 11 mos. 1 d. $55.00	607 97	
Copley, G V	Draughtsman, " " 12 " 90.00	1,080 00	
Donaldson, D	Messenger, " " 12 " 25.00	300 00	
Fox, E P	Clerk, " " ..... expenses	15 40	
Gilmour, J D	Acting Assistant Forester, Victoria " ..... "	46 50	
Grainger, M A	Chief Forester, Victoria " ..... "	207 72	
Hall, H M	Clerk, " " 12 months @ $90.00	1,080 00	
Holmes, J C	Messenger, " " 11 " 7 d. 25.00	280 00	
Lafon, J	Assistant Forester, " " ..... expenses	428 80	
McCammon, C L	Cruiser, " " 17 days @ $ 7.00; " $91.20	210 20	
Parker, J	Stenographer, " " 1 month 60.00	60 00	
Parr, E S	Compassman, " " 19 days 3.00	57 00	
Peterson, C B	Accountant, " " 3 months 180.00	540 00	
Sutherland, I G	Cruiser, " " 3 " 14 d. 90.00; allowance while on military duty, 8 months 17 d. @ $25.00	524 35	
Toye, P	Messenger, " " 12 months @ $30.00	360 00	
Van Dusen, W J	District Inspector, " " ..... expenses	265 48	
Warren, A J	Clerk, " " 7 mos. 18 d. $75.00	568 55	
Adam Bob (Indian)	Hay and wood	21 35	
Adams, G	Lighting office fires, South Fort George	1 50	
Agnew, J M	Wintering horse	7 00	
Akerberg, Thompson & Co	Engine supplies and equipment for launches	84 47	
Albert & McCaffery, Ltd.	Coal	44 30	
Alberni Trading Stores	Oilcloth	75	
Allen, F	Hauling hay	5 63	
Allison, G M	Horse-hire	44 00	
Allison & Co, A P	Shingles	5 00	
Am Forestry Assoc'n	Subscription to magazine	23 15	
American Lumberman	Subscription	6 00	
Am National Red Cross First Aid Department	1 copy of American Red Cross Text-book on First-aid and Relief Columns	1 00	
Am Ry Eng Assoc'n	2 copies of "Tests of Douglas Fir and Long-leaf Pine"	2 00	
Anderson, J	Gasolene	1 80	
Assman, F	Fish	1 00	
Assman, K	Oats	16 50	
Auriol, A	Removing launch "Leila R" from sandbar in Skeena River, 3 days and nights, with machinery and gear	30 00	
Austin, A	Coal-oil, lantern, etc	2 50	
Bagley & Sons, Ld, A G	Stamps and pad	3 20	
Bailey's Coast Stores	Provisions	8 60	
Barker, A J	2 gasolene-tanks	92 00	
Barr & Anderson	2 52-gallon range boilers, freight and cartage	53 35	
Beattie-Murphy Co, Ltd.	3 films-packs	1 20	
Beckett, E W	Team-hire and horse-feed	9 50	
Bell & Co, R B	Provisions	12 90	
Bennett, T	do	12 24	
Bentley, H	do gasolene, oils, etc	14 61	
Berry, R E	Scarborough's New Land Recording Map of B.C.	4 95	
Binning, R J	Pictures and prints	6 75	
Birks & Sons, Ltd, H	Platinum point	1 00	
Botterill, M	Auto-hire	4 00	
Bouer, L	Hay	25 00	
Boyd, J	Services as Pilot 3 days @ $5.	15 00	
Bradburn, W	Launch-hire, meals	46 50	
Bradley, R P	Gasolene, oil, etc	6 25	
Brawn, H	Examining, overhauling, and appraising sawmill, edger-planer, lath-machine, etc., seized for non-payment of royalties	5 00	
Brewster, Mrs D	1 Air-o-lite gasolene table-lamp	10 00	
B C Laundry	Laundry-work	25	
B C Mills Tmbr & Tdg Co	Lumber	28 23	
B C Telephone Co, Ltd	Exchange service and long-distance tolls	319 05	
Bronger & Flynn	Fixing shelves, material, etc	4 00	
	Carried forward	.....	31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 299.—Miscellaneous (including Transport, Salaries of Temporary Staff, Upkeep of Boats, Incidental Expenses, etc.).—Continued.		
Browne & Pidgeon	Transportation	2 00	
Bruce Publishing Co	"Agricultural Woodworking"	1 12	
Building Age	Subscription	2 50	
Bull, W A	3 frames and glass	3 60	
Bungalow Pub Co	Subscription, 6 months	1 00	
Burns & Co, Ltd, P	Meat	42 96	
Burrard Iron Works	Repairs and material, launch "Euclataw"	21 40	
Burroughs A Mach Co	Attention to machine, $10; ribbon, $1.25	11 25	
Calwell, H	Cartage and prepaid freight	7 57	
Campbell, J	Rent of office, Cranbrook ..... 12 months @ $25	300 00	
Campbell, W	Loading hay	2 70	
Campbell River Tdg Co	Provisions	21 75	
Can Bank of Commerce	Exchange on remittances	114 00	
Can Eng & Supply Co	1 set gears for Evinrude	5 35	
Canadian Express Co	Expressage	65 33	
Can Fairbanks-Morse Co	Equipment for launches and ranger-station	95 87	
Can Forestry Association	Subscription	1 00	
Can Northern Ry Co	Freight	5 25	
Can Pacific Railway Co	Telegrams, $313.67; demurrage, $21.00; freight, $1.32	335 99	
Can Trade Commissioner, Cape Town, S Africa	1 copy of "Science in South Africa"	2 57	
Can Western Electric Co	Launch-hire, $24; repairing storage-battery, $9	33 00	
Carr, R C	Glass sign and frame	10 50	
Cascade Steam Laundry	Laundry	3 25	
Cawley, W H	Provisions	6 55	
Chappell Bros	Equipment and repairs to launches, wharfage, etc.	192 33	
City of Kamloops	Electric light	8 05	
City Livery, Cranbrook	Livery-hire	130 00	
City Livery, Kamloops	do	4 50	
City Market, P Rupert	Provisions	3 65	
City T & W'house Co	Horse-feed, cartage, etc	51 50	
Clarke & Stuart Co, Ltd	Water-proof scaling-sheets, stationery and freight	53 10	
Cocker, S	Pasturage, packing up camp outfit, etc	19 25	
Coleman Lamp Co	1 N.A. pump for gasolene lamp	65	
Colonist Ptg & Pub Co, Ltd	extra copies	85	
Comstock, Mrs	Janitor-work, Prince George	3 50	
Copas & Young	Provisions	8 35	
Coutts, Mrs	Water	6 00	
Cowie Machine Co	Repairs and materials to launch "Export Patrol"	22 70	
Cranbrook Co-op Stores	Horse-blankets	13 45	
Cranbrook D & Book Co	Stationery	1 15	
Cranbrook Elec Light Co	Electric light	9 00	
Cranbrook Herald	Advertising timber-sales, etc	75 28	
Cranbrook Saddlery Co	Saddlery and repairs	25 10	
Creston Review	Advertisement *re* Scalers' examinations	3 20	
Critchley, J	Gasolene	30 50	
Cunningham&Sons,Ltd,R	Horse-feed, oil, gasolene, etc	87 45	
Darcy, E	Hay	14 12	
Defebaugh, E H	Subscription to "Barrel"	1 50	
Deighton, A G	Provisions, launch-hire, etc	125 85	
Denker, J P	1 copy of Badon & Co.'s B.C. Survey Plat	6 50	
Dept of Inland Revenue	Revenue-stamps	10 00	
Dezail, F	Blacksmithing	4 00	
Dick, H	Packer (including use of dog-team, sleigh, and food) .. 23 days @ $4.50	103 50	
Dick, Mrs H	Breaking trail ..... 2 " 1	2 00	
Dickie's Grocery	Provisions	37 75	
Dillon, W	Repairing harness	1 50	
Dominion Auction Rooms	1 pair saddle-blankets	1 50	
Dominion Express Co	Expressage	147 94	
Dom Govt Telegraphs	Telegrams	170 42	
Dom Govt Publications	Subscription to Postal Guide	50	
Dominion Laundry	Laundry	9 18	
Dowie, E E	Unloading and stacking hay	2 10	
Draney Fisheries	Equipment and repairs to launch "Eva R," provisions, etc	122 05	
Duke's Grocery	Provisions	47 15	
Duncan, G	Launch-hire	8 00	
Dunseath, W J	Provisions, coal-oil, launch-hire, etc	349 10	
Eagleson, M R	Office-rent, Lillooet ..... 11 months @ $15	165 00	
Easthope Bros	Equipment and repairs to launches, etc	239 80	
Edwards Bros	Films	2 05	
Elec B Print & Map Co	Blue and white prints, repairs to instruments, etc	213 05	
Electric Supply Co, Ltd	Equipment for Thurston Bay Ranger-station	67 55	
Elec Maintenance Co	Charging 2 storage-batteries	1 50	
Elec Repairing & Eng Co	Electrolite, 6 standard base 6-volt lamps, repairing storage-battery	11 30	
Elliott, B S, M D	Medical attendance *re* accident to W. R. Flumerfelt	10 00	
	Carried forward		31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 299.—Miscellaneous (including Transport, Salaries of Temporary Staff, Upkeep of Boats, Incidental Expenses, etc.).—Continued.		
Empire Pulp & P Mills	Provisions, lubricating-oil	7 75	
Empire Publishing Co	Advertisement *re* Civil Service examinations	7 20	
Engvick, A J	Launch-hire	10 00	
Evans, Coleman & Evans	Coal	1 05	
Evanson, Mrs	Meals and bed, launch-hire	52 00	
Ewart, C, M D	Medical attendance *re* accident to J. G. MacDonald	10 00	
Falls City Cycle Co	Engine-chain for motor-cycle and postage	2 21	
Fernie Cartage Co	Horse-feed	7 00	
Fink Mercantile Co	2 tents	26 00	
Finlaison, C S	Wood	180 17	
Finlaison, F D	Horse-hire	15 00	
Fletcher's Meat Market	Meat	17 85	
Forbes, G	Hauling hay and oats	11 65	
Forte, J F	Canoe-hire	8 00	
Ft George & Alta Tel Co	Rental and long-distance tolls	59 69	
Fort George Drug Co	Stationery, battery	13 60	
Fort George Hardware Co	Toboggan-runners	2 50	
Fort Steele Trading Co	Hardware	53	
Foster, M	Hay	18 00	
Fowler, L	Wood	15 00	
Fraser, Capt A	Services as Pilot 2 days @ $5	10 00	
Fraser, A	2 negatives of lumber views	6 00	
Fraser, R	Oats and horse-blankets	9 10	
Frizzell's Meat Market	Meat	177 87	
Fugler & MacKinnon	Blue-prints	15 40	
Gabriel, J	Hay	23 75	
Garvey & Hawkins	Cartage	2 50	
Gonsalves & Dames	Provisions, coal-oil, distillate, gasolene, etc	313 82	
Goodman Supply Co	Gasolene	3 25	
Gosse-Millerd Packing Co	Distillate, provisions	31 55	
Grand Forks Gazette	Advertisement *re* examination for licensing Scalers	3 60	
G T P Railway Co	Freight, $35.89; telegrams, $12.46	48 35	
Grant & Ballard	Provisions	6 28	
G N Express Co	Expressage	50	
G N W Telegraph Co	Telegrams	24 17	
Gregg, W	Snow-shoes	9 00	
Grierson, S	Cartage, etc	40 86	
Hanson Garage	Gasolene, inner tubes, casings, storage, etc	80 60	
Harley-Davidson M Co	Repair parts for motor-cycle	12 80	
Harrison & Co	Repairing aneroid	2 50	
Haworth & Co, Ltd, A	Subscription to "The Timber News and Sawmill Engineer"	4 29	
Heilbroner, M	Repairs, "Leila R"	2 50	
Henry, A	Material and equipment, launch "Eva R"	20 00	
Highet, Mrs R	Meals	43 83	
H M Customs	Duty	6 80	
Hogan, H H	Ring-bolts, nuts, and washers	1 50	
Hood's, Ltd	Provisions, hardware, freight, etc	304 70	
Hooper, Publishing Co	Subscriptions to "British American Lumberman"	4 00	
Howe & McNulty	Supplies for launches	4 00	
Howison Estate, J W	Hardware, repairs to generator, etc	6 85	
Hudson's Bay Co	Hay, oats, provisions, dry-goods, etc	99 77	
Hutchison Co, A	Hay, rock salt, telegram	21 50	
Imperial Oil Co, Ltd	Distillate, mobiloil, gasolene, etc	3,478 52	
Indus Prog & Com Record	Subscription	1 00	
Inland Rev Dept, Vic	Inland-revenue stamps	7 00	
James, A G	Horse-hire	2 50	
Jeglum, M E	Toboggan	4 00	
Jobe, L	Overhauling typewriter	7 00	
Jones & Smith	Board and room	6 00	
Jones & Son, Ltd, C H	Blue Canadian ensign with B.C. Provincial crest	3 00	
Johnson, E	Branding-iron	3 00	
Johnston, F J	Wood	6 00	
Kaien Hardware Co	Oil, paint, rope, brushes, etc	74 03	
Kamloops Harness Co	Leather attachment for snow-shoes, 1 pair surcingles, etc	3 25	
Kamloops Standard	Advertisement	40	
Kamloops Telegram	Advertisement *re* timber-sales	5 40	
Kelly, F A	Horse-brand	1 50	
Kennedy, Blair & Co, Ld	Saw set, twine, lamp-globe, etc	2 05	
Kerr, J W	Gasolene	2 25	
Kitchin, J P	1 copy of "Schenk's Forest Finance"	52	
Kootenay Garage	Overhauling and repairing motor-cycle, 1 set weed-chains, etc	53 25	
La Casse Bakery	Bread	86 65	
Kootenay Tel Lines	Rental and long-distance tolls	23 00	
Lambert & Co, Ltd, A C	Lumber, $1.44; launch-hire, $16	17 44	
Lazzerin & Bros, J	Blacksmithing	9 50	
	Carried forward		31,592 33

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	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 299.—Miscellaneous (including Transport, Salaries of Temporary Staff, Upkeep of Boats, Incidental Expenses, etc.).—Continued.		
Leask, G R	Making and installing shelves, stationery-cabinet	35 00	
Lee, R H	Office-rent 10 months @ $35	350 00	
Leith Bros	Camp-stove, pipes, hardware, etc	15 60	
Leonard, R A	Building brick thimble	5 00	
L E Typewriter Co	Cleaning, overhauling, and repairing typewriter	9 00	
Lillooet Water Works	Water	11 00	
Lipsett, Cunningham & Co	Blue ensign, rope, and flag	14 75	
Lister, J	Oats	17 50	
Lodwick, R E	Overhauling and repairing typewriters, ribbon	10 75	
London Grocery Co, Ltd	Provisions	52 55	
Loop, C C	Repairing steel tape	1 00	
Louden, A S	Hectograph, ink	25	
Low, H G	Livery-hire, feed, etc	9 00	
Lumber World Review	Subscription	3 00	
Lynch Bros	Provisions	136 85	
Machum, K	Snow-shoes	8 00	
Malone, Mrs T	Cleaning offices	24 00	
Manning, J	Provisions	36 38	
Manning, Ltd, I R	do	19 80	
Maple Leaf Bakery	do	28 15	
Mansfield, D	Hauling	6 00	
Marlatt & McKenzie	Hardware, electric globes, etc	13 20	
Marshall-Wells Co	Hardware, paint, horse-blankets, etc	65 91	
Martz, A	Cleaning offices	4 95	
Marvin, J P	Repairs to launch "Eva R"	2 50	
Matthie & Handforth	Electric-light shades, globes, etc	6 05	
Megaw W R	Provisions	12 55	
Megaw Motor Co	Tires	42 00	
Miller-Phillips Co	Provisions	59 85	
Minton & Bean	Gasolene and oil	20 55	
Mochelle Doctor (Indian)	Wood	3 00	
Moore, W H	Bread	1 00	
Moore & Co, Ltd, R M	Repairs to gasolene-lamp, 1 dozen mantles	2 35	
Moore, J D	Fares and expressage	7 25	
Mortz, A	Sawing wood	60	
Mouat, T W	Expenses in connection with Scalers' examinations	5 75	
Multigraph Sales Co, Ld	Multigraph ribbon coupons, pica type, clips, repairs, etc	27 89	
Munro, Ltd, J	Provisions	53 18	
Musico, A	Horse-hire	24 00	
MacLean, Ltd, H C	Subscriptions to "Canada Lumberman" and "Western Lumberman"	20 17	
MacPherson, D C	Assistance in inspecting timber-sale	7 00	
McBride, J D	Repairs to motor-cycle, oils, hardware, etc	79 76	
McBride Trading Co	Provisions	4 52	
McCannell & Son	Livery-hire	19 00	
McColl, G P	Provisions	53 05	
McConnell, A	Gasolene	40 65	
McCready, W	Repairing typewriter	3 00	
McCulloch & Mitchell	Pocket-diaries, stationery, etc	36 15	
McDonald, C J	Gasolene, palacine	11 52	
McDonald, P	Provisions, hardware, distillate, coal-oil, etc	1,318 12	
McDonnell, R J	Rent of stable 8 months @ $10	80 00	
McGregor, D	Provisions	115 00	
McKeen, H E	Blacksmithing	37 00	
McLennan, McFeely & Co	Vice, freight, etc	7 72	
McLeod & Harrison	Provisions, horse-feed, etc	26 93	
McMillan, N	Hauling wood	15 90	
McRae Bros, Ltd	Engineers' diary	75	
McTaggart & Son	Provisions	45 85	
McTavish Bros	Brokerage	1 00	
McVickers, J	Auto-hire	30 00	
Nanwold, Mrs B	Meals and beds	5 00	
Nash, A	Repairs to speeder	14 00	
Nechako Stables	Hay and oats	30 75	
Nelson, C W	Launch-hire and meals	4 00	
Nelson Daily News	Advertising timber-sales, etc	62 15	
Nelson Hardware Co	Blue-print tube, stencil-brush, turps	2 45	
Nelson Transfer Co	Horse-hire	5 00	
N Y Lbr Trade Journal	Subscription	2 50	
North Star Hotel	Horse-feed	3 75	
Northern Elec Co, Ltd	Galvanized wire, batteries, insulators, etc	18 31	
Northern Hotel	Board and room	17 50	
N Lumber & Merc Co	Hardware, lumber, cook-stove, pipe, etc	55 02	
N Tel Co, Hazelton	Rent of phone	42 50	
N Tel & P Co, P George	Electric light	8 50	
Nye, Mrs E	Meals and bed	2 50	
Ogburn, T	do boat-hire	5 00	
	Carried forward		31,592 33

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	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	Vote No. 299.—Miscellaneous (including Transport, Salaries of Temporary Staff, Upkeep of Boats, Incidental Expenses, etc.).—Continued.		
Okanagan Grocery	Provisions	6 55	
Okanagan Saddlery	Currycomb and brush	75	
Okanagan Telephone Co	Rent of phone and long-distance tolls	37 65	
Omineca Miner	Advertisement *re* strayed horse and timber-sales	4 02	
Pacific Cartage	Cartage	1 50	
Pacific Mills, Ltd	Provisions, distillate, grease, gasolene, etc	529 63	
Pacific Transfer Co	Cartage and paid freight	2 60	
Parker, B G	Janitor service	4 00	
Parkin & Ward Elec Co	Electrical supplies	15 30	
Parks & Co, F	Snow-shoes, twine	24 50	
Parrett, T N	Blacksmithing	15 00	
Pascoe's Wharf	Wharfage	50 00	
Patterson & Duncan	Cards for Scalers' examination	1 60	
Pattinson, J	Horse-hire	10 00	
Pauline, J A	Provisions, oil, etc	141 46	
Penney, M	do	50 30	
Percival, S	Cleaning and painting launch, gasolene, oils, paint, etc	479 48	
Phair, C A	Saddlery, films, heater, pipe, etc	29 25	
Philip, A	Room and meals	12 00	
Pioneer Laundry, Ltd	Laundry	20 67	
Pioneer Market	Meat	52 62	
Pioneer Press	Subscription to "Indian Forester"	4 16	
Port Alberni News	Advertisement *re* timber-sale	2 52	
Porter, M	Oats and seed	67 81	
Porter Hay & Grain Co	Bran	3 50	
Post, L D	Subscription to "Paper Mill and Wood Pulp News"	4 50	
Postill, G	Stabling and feeding horse	9 00	
Postmaster, Clinton	Postage-stamps	75	
do Cranbrook	do and rent of post-office box	130 00	
do Hazelton	do "	49 50	
do Kamloops	do	10 00	
do Lillooet	do and rent of post-office box	24 77	
do Nelson	do "	56 00	
do Ocean Falls	do "	8 50	
do P Rupert	do "	59 00	
do S Ft George	do "	67 00	
do Vancouver	do	167 00	
do Vernon	do and rent of post-office box	51 25	
Powell River Co, Ltd	Provisions, gasolene, batteries, etc	231 88	
Practical Lumberman	1 copy of "Practical Lumberman"	1 50	
Prince George Citizen	Advertisements *re* timber-sales, machinery	67 72	
P George Printing Co	1 ream plain writing-paper	1 00	
P Rupert Boat House	Launch-hire	2 25	
P Rupert Daily News	Advertisement *re* examination and timber-sales	18 00	
P Rupert Empire	Advertisement *re* timber-sales	18 20	
P Rupert Journal	do	33 70	
Prior & Co, Ltd, E G	Crockery and cutlery, hardware, scale-rule, etc	22 92	
Progressive S Boat Co	Freight, wharfage, etc	222 22	
Prosser, C V	3 sets snow-shoe harness	2 25	
Prov Scavenger, S Fort George	Scavenging 12 months @ $1	12 00	
Putnams	Book	60	
Quail, J D	Hardware	18 45	
Quathiaski Canning Co	Provisions, $5.15; hire of scow, $27	32 15	
Ralph, Morris & Ella, Ltd	Heater, tanks, etc	11 75	
Randall, R S C	Toboggans	9 00	
Rat Portage Lumber Co	Lumber	32 25	
Rebagliati, P	Expressage	1 00	
Reid, C C	Provisions	91 90	
Riley & Larsen	Horse-feed	9 50	
Ritchie, W S	Blacksmithing	10 00	
Roberts, A B	Team-hire, etc	45 00	
Robertson & Hackett	Lumber	53 88	
Rognon, O J	Negatives and prints	8 00	
Ross, J S	Team-hire	1 50	
Ross-Saskatoon Lbr Co	Provisions	8 05	
Royal Transfer Co	Cartage	16 40	
Royal Typewriter Co	Repairing typewriter	2 00	
Ruddy & MacKay	Expressage, blacksmithing	45 79	
Rush Transfer & S Co	Cartage	4 00	
Rutledge, J W, V S	Professional services	18 50	
Sandberg, C	Horse-hire	12 00	
Santini & Co, P	Provisions, coal-oil	10 90	
Sargent, R S	Rent, horse-blankets, keys, sawing and piling wood	194 95	
Scott, E	Stationery	1 00	
Sechelt Seaside Resort Co	Provisions, batteries	120 65	
	Carried forward	.....	31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts
	Brought forward		31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Continued.*		
	***Vote No. 299.—Miscellaneous (including Transport, Salaries of Temporary Staff, Upkeep of Boats, Incidental Expenses, etc.).*—Continued.**		
Seymour, W	Snow-shoes and refilling	11 00	
Sheep Creek Livery	Horse-hire and packer	22 00	
Sherman, W	Toboggan	10 00	
Sandy Shields (Indian)	Wood	3 00	
Similkameen Garage	Tire	21 00	
Simson, Balkwill & Co, Ld	Material and equipment for ranger-station and launches	575 36	
Slater, H A	3 galvanized-iron tanks, crating, freight, and cartage	54 15	
Small, F A	Provisions	19 45	
Smith Lbr Co, Ltd, S C	Lumber	1 37	
Smith & Co, C H	Films	8 70	
Smith & Mallett	Plumbing material	6 30	
Snodgrass, H	Wintering horses	45 00	
Society of Am Foresters	Subscriptions	29 00	
Somerton, W	Electric light, telegrams, phone calls, etc	33 33	
Sommer & Sons, Ld, J	Photographs	1 60	
Spalding, J F	Photographs of post operations	15 00	
Spurr's Market	Provisions	313 65	
Squire, F J	Overhauling and remodelling tents	15 00	
Sumner Metal Works	Bronze sleeve, freight, cartage	5 68	
Supt of Documents, Washington, D C	Bulletins	8 25	
Stephenson & Crum	Block-iron, screws, etc	3 75	
Stork, F	Hardware, etc	37 93	
Swanson, A	Boat-hire	50	
Swanson, J	Lumber, sawdust	7 25	
Swart, A H	Firewood	6 00	
Sweet, E	do	25 00	
Tarbuck, E	Photographic print	25	
Taylor & Co	Stamps	16 80	
Thomas Bros	Provisions	367 65	
Thompson Hardware Co	Brackets and screws	1 20	
Thomson Stationery Co	Charts for launch "Euclataw"	3 70	
Thomson, S	Photos of flag-pole	5 20	
Thulin Bros	Provisions, oil, etc	69 00	
Timber Trades Journal	Subscription	5 58	
Timberman, The	do	4 75	
Townshend, Mrs G E	Meals, bed, horse-feed	2 50	
Trites-Wood Co, Ltd	Provisions	29 10	
Union Gas Engine Co	Repairs to launch, etc	7 14	
Uuion Steamship Co, Ld	Freight, fares, meals, etc	75 50	
United Typewriter Co	Supplies and repairs to typewriters	90 45	
Univ of Washington	Book	8 00	
Up-to-Date Drug Store	Drugs	3 80	
Van Daily Province	Subscriptions	194 90	
Van News-Advertiser	do	361 10	
Vancouver Gas Co	Water-heater	15 00	
Vancouver Standard	Advertising	5 16	
Vancouver Daily Sun	do	80 75	
Van-P Rupert Meat Co	Provisions	27 88	
Vanderhoof Herald	Advertising	2 64	
Vernon Fruit Union	Hay, straw, etc	9 60	
Vernon Hardware Co	Hardware	13 85	
Vernon News P & P Co	Advertising	27 87	
Victoria Daily Times	Subscription	5 55	
Victoria Mach Depot Co	Fittings for launch "Euclataw"	263 78	
Victoria Book & Stat Co	Almanacs, etc	4 15	
Victoria Photographic Co	Printing and developing	16 65	
Vic Typewriter Exchange	Overhauling adding-machine	2 00	
Waege, Mrs A	Washing pots, pans, etc	75	
Wah Lee & Co	Gasolene	3 50	
Wallace & Co, H S	Equipment for launch "Leila R"	5 65	
Wallinger, N A	Renewal of motor-cycle licence	5 00	
Way, A E	Gasolene	5 40	
Wells, M R	Boat-hire	15 00	
Welsh, N	Haulage	24 00	
Westholme Lumber Co	Lumber	55	
W Coast "Lumberman"	Subscription	8 00	
Western Specialty, Ltd	Carbon paper, cash-book	5 25	
Whitney, E E	Sharpening saw and axe	1 25	
Wiggins, Mrs M C	Rent of offices and stables.....12 months @ $40	480 00	
Wilcox-Hall Co, Ltd	Tent, picks, lamp, etc	16 80	
Williams, C F	Repairs and supplies, launch "Export Patrol"	34 85	
Williams, G	Services, feeding and watering horses, hauling, etc	4 90	
Wilson, H	Repairs to toboggan and filing-drawers	7 75	
Wilson Bros	Provisions	53 17	
Wing, O	Washing and ironing window-curtains	50	
	Carried forward		31,592 33

TO WHOM PAID.	FOR WHAT SERVICE.	cts.	$ cts.
	Brought forward		31,592 33
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Forest Branch.—*Concluded.*		
	Vote No. 299.—Miscellaneous (including Transport, Salaries of Temporary Staff, Upkeep of Boats, Incidental Expenses, etc.).—Concluded.		
Winn & Son	Provisions	3 80	
Wood, W	Flag-poles	30 00	
Wood, Vallance & Leggat, Ltd	Log-scale rules	143 79	
Yale Forest School News	Subscription	1 00	
Young, H	Drayage	50	
		64,195 88	
	Cr. Refunds	878 29	
			63,317 59
	Vote No. 300.—Timber-testing and Investigation of Wood Products.		
White, J H	Preparing specifications for timber-tests on Douglas fir in co-operation with Dominion Forest Branch in accordance with definite arrangement outlined in Chief Forester's letters of March 10th to Messrs. White and Dr. Bates	50 00	
do	Expenses of trip to Montreal	4 55	
			54 55
	Lands Branch.		
	Vote No. 301.—Dry-lands Investigations and Experiments.		
Brookland, E	(Paid) Money-orders, blacksmith, expressage, etc	66 52	
Can Steel & Wire Co, Ld	American fencing and gates and freight	585 24	
Can Western Foundry & Supply Co, Ltd	2 male drove-heads	64 00	
Carroll-Wilson, Ltd	Drive-cap	11 95	
Currie, D	Building granary, and threshing, etc	120 96	
Elliott, W J	Cyclone weeder	50 00	
Dominion Express Co	Expressage on trees	5 04	
Dumond, M	Mower, rake, flooring, etc	245 45	
Elliott, Prof W J	Travelling expenses *re* Dry Farms at 105-Mile House and Quilchena, stamps	94 50	
E & N Railway Co	Freight on well-boring machine	439 88	
Ferrie Engine Shop	Repairing link, making spark-arrester	6 30	
Guichon, Joseph A	Threshing, wages, gasolene, blacksmithing, etc	370 66	
Hamilton, Rae	Service fee for stud horse for season 1915-16	20 00	
Highl'nd Ranch Gen Store	Meals, beds, and hay	89 50	
Hunt, Tom	Iron pipe and hire of saw	26 00	
Ingham Bros	Hire of team and rig	4 00	
Inland Express Co, Ld	Expressage	14 60	
Johnson, J M	Hardware	7 95	
Marsh, R W	Fare, board and room, hardware, etc	164 15	
Merritt, Lumber Yard	Lumber, shingles, etc	112 45	
Mitchell Nursery Co, A	Fruit and berry trees	44 00	
McCorkell Bros	Washers, blocks, and rope	3 00	
McKenzie & Co, Ltd, A E	Seeds	4 25	
McNiel, L M	Freight, haulage, and storage	66 70	
McNeil, B H	Threshing	144 00	
McTavish Bros	Duty, brokerage, freight, and express	65 00	
Nechako Stables, The	Livery-hire and horse-feed	15 00	
Nerlin, F	Blacksmithing	2 75	
Nicola Livery Stable	Hauling fence-wire, lumber, gasolene, etc	73 65	
Paige, Mrs F	Hay	120 00	
Prior & Co, Ltd, E G	Hardware	47 21	
Ramsay's Machine Works	Repairs and material for well-drilling plant	1,015 78	
Redman, W	Steel cable	11 00	
Robertson's Iron Works	Repairs to well-sinking machine	90 81	
Star Drilling Machine Co	Temper screw, sand-pump, comb-socket, etc	153 33	
Turner, James	Castrating and branding 2 colts	6 00	
Victoria Book & Stat Co	Cleaning and repairing shutter view-finder and catch	5 00	
Victoria Truck & Dray Co	Teaming	17 50	
Wise, G	4 pigs	20 00	
Murray, Miss Edith	Stenographer ... 1 month @ $12.50	12 50	
Elliott, W J (Professor)	Services ... 10 " 83.33	833 32	
Elliott, Wm	Manager, Cariboo Farm ... 9 " 95	855 00	
Griffiths, C	Assistant, do ... 10 " 80	800 00	
Brookland, E	Manager, Quilchena Farm ... 9 " 95	855 00	
Boals, J	Assistant, do ... 10 " 80	800 00	
Ure	Stenographer ... 8 " 12.50	100 00	
Marsh, R W	Well-sinker ... 161 days 7	1,127 00	
Gilbert, S	Assistant Well-sinker ... 50 " 2.80	140 00	
			9,926 95
	Carried forward		104,891 42

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		104,891 42
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Lands Branch.—*Concluded.*		
	Vote No. 302.—Salaries and Expenses of Pre-emption Inspectors.		
Bailey, C E	Services as Inspector of Pre-emptions..11 mos. 14 d. @ $115.33; expenses, $406.35	1,727 06	
Cullin, C L	do ..7 " 20 d. 108.33; " 602.40	1,429 26	
Gillespie, R	do ..12 months 115.33; " 790.90	2,174 90	
Smith, J W	do ..12 " 115.33; " 764.90	2,148 90	
Wilmot, W A	do ..12 " 115.33; " 804.45	2,188 45	
Fleming, H	Photo supplies	84 39	
			9,752 96
	Vote No. 303.—Balance of Compensation to North Pacific Lumber Co., Ltd., re Timber Lease, Lot 439, Group 2, New Westminster District.		
N Pac Lbr Co, Ld, & The Franco-Can Tim Co, Ld	To amount of compensation voted The North Pacific Lumber Company, Limited (The Franco-Canadian Timber Company, Limited), *re* Timber Lease, Lot 439, Group 2, New Westminster District		7,500 00
	Surveyor-General's Branch.		
	Vote No. 304.—Maps (including Lithographing, Printing, and Purchase of Non-departmental Maps).		
Colonist Ptg & Pub Co, Ld	Maps, etc		1,369 25
	Vote No. 305.—Photo-topographical Surveys.		
McCaw, R D, B C L S	Okanagan District		5,850 30
	Vote No. 306.—Surveys throughout the Province.		
Black, H C	Services and expenses as Surveyor, between Bednesti Lake and Buck River	5,389 10	
Brown, R P	do Similkameen District	3,097 89	
Brown, H H	do Rupert District	2,570 35	
Burden, F P	do Eaglet Lake, Cariboo District	4,880 67	
Burnett & McGugan	do tie-line connecting Lot 121, C.R. 3, with Lot 186, C.R. 3	14 20	
Christie, G M	do Lot 4385, Lillooet District	40 00	
Christie, Dawson & Heywood	do tie from S.E. Lot 4397 to N.W. Lot 4398, Kamloops District	25 00	
Cleveland & Cameron	do preparing plans and blue-prints, Kitsilano Indian Reserve	5 00	
Cokeley, L S	do Township 42, Rupert District	4,879 08	
Cotton, A F	do Lillooet District	2,843 06	
De Wolf, H H	do re-marking posts, Lot 6033, Kootenay District	113 75	
Drewry, W S	do eastern part of Lillooet District	6,310 20	
Ellacott, C H	do Lot 8526, Cariboo District	75 00	
Elliott, J	do New Westminster District	3,302 05	
Gray & Lewis	do Lot 328, Cassiar District	97 75	
Green, A H	do Lot 937, Sproule Creek, Kootenay District	1,169 10	
Green Bros, Burden & Co	do Lots 1371 to 1379, inclusive, Port Neville, Coast Range 1	615 00	
Gregory, P W	do Princeton District	3,723 57	
Haggen, R W	do tie from S.E. corner of Lot 6155 to N.W. corner of Lot 9134, Cariboo District	3,702 08	
Horie, R L	do N.W. ¼, W. ½ of W. ½ of N.E. ¼ Section 28, N.E. ¼ Section 29, Township 14, Osoyoos	60 00	
Hutchinson, B	do Lots 1247 and P.R. 685, Rupert District	129 00	
Laverock, J E	do along Lower Mainland Coast	5,643 00	
Long, J C A	do Queen Charlotte Islands	3,012 55	
Moffatt, W J	do tie between S.E. corner of I.R. No. 1 and N.W. corner of I.R. No. 3, Bute Inlet; C.R. 1, field-notes of Call Creek, tie traverse S.W. Lot 1344 to S.E. Lot 923, C.R. 1, $15	58 62	
Moorhouse, B A	do Similkameen District	3,185 84	
Morkill, D B	do tie traverse from 116-mile post, 55th parallel, to "Debenture" M.C., Lot 6310, R.S., Coast District	60 00	
McElhanney, W G	do Half Moon Bay, N.W.D	3,256 10	
McVittie, T T	do subdivision of timber licences in Lots 9250 and 9261, Kootenay	1,180 95	
Nash, F	do Township 4, Queen Charlotte District	2,875 30	
	Carried forward		129,363 93

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	129,363 93
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Surveyor-General's Branch.—*Concluded.*		
	Vote No. 306.—Surveys throughout the Province.—Concluded.		
Rimmer, W B.	Services and expenses as Surveyor, planting posts, Block 16A, Atlin Townsite, $7.50; preparing plan of mineral claims on Big Horn River, Cassiar District, $10	42 50	
Roberts, H H	do pre-emptions near Grace Harbour, New Westminster, etc	6,353 81	
Silcox, E S	do Lots 4200 and 920, Kamloops District; Lot 949, Yale District	89 53	
Smith, C C	do locating Lots 1727, 1728, 1737, 1738	58 75	
Swannell, F C	do Lots 1131 and 1131A, C.R. 4; Lot 6794, Cariboo, $141.35; preparing map of Lots 1880-1895, 1905, 1908 and 1953-4-7, Coast Dist., Range 4.	171 35	
Townsend, N F	do vicinity of Powell Lake	3,380 78	
Tupper, F	do " Parsnip and Finlay Rivers	6,502 16	
Wilkie, O B N	do Nicola District	5,663 72	
Williams, C W	do Pre-emptions, 150-Mile House	1,555 88	
Wright, A	do Lots 3716-3723, Cariboo District, Lots 148 and 149, Peace River District	1,361 50	
Anderson, O	Wintering 10 horses	150 00	
Butterfield, G	Refund of part of fee paid for survey of Lot 8706, Cariboo District	40 00	
Dept of Interior, Ottawa	One-third share of expenses *re* preparation of returns of Interprovincial Boundary between Alberta and British Columbia	6,189 71	
London & Brit N Am Co	Premium on insurance of gasolene-launch "Mary K."	45 00	
Murphy, J P	Pasture of 6 horses at $2.50 per month	45 00	
Reid, S D	Refund of fee paid *re* survey of Lot 824, Range 3, Coast District	220 00	
Reid, Mrs E G	do " 826, " 2, "	20 00	
Taylor, H	Cartage	75	
			94,204 65
	Vote No. 307.—Temporary Assistance.		
Whaite, H	Blue-print Machine Operator 164 days @ $3	.....	492 00
	Vote No. 308.—Purchase of Maps.		
Denker, J P	Sundry maps	19 50	
Morris, C S	do	73 50	
Min, Eng & Elec Record	do	22 00	
			115 00
	Water Rights Branch.		
	Vote No. 309.—Board of Investigation (including Salaries and Travelling Expenses).		
Armstrong, J F	Chairman 12 months @ $233.33; expenses, $238.55	3,038 55	
Alexander, J S T	Member 12 " 250.00; " 234.10	3,284 10	
Mountain, J R	Travelling expenses	194 61	
			6,467 26
	Vote No. 310.—B.C. Hydrographic Survey.		
Chief Engineer	Pay-lists, steam-gauging, Coast Division	1,699 12	
do	do " Golden District	24 60	
do	do " Kamloops Division	1,608 10	
do	do " Nelson Division	1,383 10	
do	do " Prince George	284 95	
			4,999 87
	Vote No. 311.—Collecting Rainfall and Climate Statistics (including Observers' Salaries).		
Pay-lists	Rain-gauge readers	.....	654 00
	Vote No. 312.—Expert Assistance.		
Young, William	Comptroller of Water Rights 10 months @ $333.33; 2 months @ $333.35	.....	4,000 00
	Carried forward	.....	240,296 71

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		240,296 71
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Water Rights Branch.—*Continued.*		
	Vote No. 313.—Public Irrigation Corporations—Surveys and Investigations (including Salaries and Travelling Expenses).		
Augustine, A P	Engineer 2 months @ $125.00=$250.00; expenses, $104.05	354 05	
Groves, F W	do 1 " 30 d. 100.00; " 14.95	211 75	
Sismey, E D	Assistant Engineer 2 " 75.00	150 00	
Buchanan, Wm	Rodman 10 days 2.50	25 00	
Davis, E	Chief Engineer.. expenses, $198	198 00	
Bassett, F H	Horse and rig hire, etc.	5 75	
Clarence, E M	Meals and beds	42 50	
Corp of Penticton	Electric light and scavenging	1 60	
Cutbill, S N	Horse and rig hire	12 50	
Dominion Express Co	Expressage	2 05	
Northey, R W	Mending weir on Olalla Creek	4 00	
Okanagan Telephone Co.	Telephone, etc	3 65	
Penticton Electric Co	Electrical supplies	1 50	
Postmaster, Penticton	Stamps	5 00	
Prov Securities, Ltd	Rent of offices, 2 months	40 00	
Roe Bros	Room and board	26 50	
			1,083 85
	Vote No. 314.—Surveys (General).		
Allan, C C	Assistant Engineer 4 m. @ $100=$400.00, less military pay, $305	95 00	
Allen, J	Rodman 8 days 3= 24.00; expenses, $ 3	27 00	
Anderson, G	Engineer 12 months @ 125.00; " 279.35	1,779 35	
Atwood, H	Reader 6 " 2.00	12 00	
Appleton, O B	do 2 " 5.00	10 00	
Augustine, A P	Engineer 5 " 125.00; expenses, $200.26	825 26	
Bergoust, O J	do 7 months @$150.00; 5 " 175.00; " 269.85	2,194 85	
Biker, W J E	do 12 " 175.00; " 467.85	2,567 85	
Blain, W	Assistant Engineer 5 " 27 d. 90.00; " 41.80	571 64	
Brady, T A	Axeman 45 days 3.00; " 3.50	138 50	
Burson, J H	Rodman 3 mos. 29 d. 60.00	238 00	
Childers, H C	Reader 5 " 12 d. 5.00	27 26	
Coldham, W	do 4 months 16 d. @ $3.00; 3 " 3 d. 2.00	22 06	
Collins, H	do 5 " 24 d. 2.00	11 50	
Cooper, G (Indian Chief)	Services patrolling Vedder River	5 00	
Crawford, D	Reader 5 mos. 10 d. @ $4.00	21 33	
Crighton, G	do 6 " 5.00	30 00	
Cross, A L R	do 5 " 5.00	25 00	
Cuthbe, K V	do 1 " 5.00	5 00	
Davis, E	Chief Engineer expenses, $158.45	158 45	
Francis, R S	Reader 10 months @ $5.00	50 00	
Gellatly, D	do 2 " 12 d. 3.00	7 30	
Glover, F L	Rodman 36 days 2.00	72 00	
Geen, A H	Reader 5 months 12 d. 4.00	21 81	
Groves, F W	Engineer 9 " 100.00; expenses, $201.15	1,101 15	
Groves, G	Chainman and Rodman 1 day 2.00	2 00	
Groves, J	do 3 days 2.00	6 00	
Gtz, C	Axeman and Guide 5 " 3.00	15 00	
Hewlett, A	Reader 3 months 14 d. 3.00	10 75	
Hewlett, E	Axeman 28 days $50.00 per month	46 70	
Hewlett, W G H	Services, fetching horses	7 50	
Hill, H	Rodman 61 days @ $3.00; expenses, $6.40	189 40	
Hodgson, J	Bailiff 8½ " 3.00	24 75	
Honeywell, W C	Reader 5 months 12 d. 5.00	27 26	
Jackson, G H	Cook, Rodman, etc 71 days 3.00; expenses, $12.90	225 90	
Jamieson, E A	Engineer 18 " 125.00 per month	75 00	
Knewstubb, F W	do 12 months 165.00, less military pay $365	1,615 00	
Lawley, H G	Assistant Engineer 12 " 90.00	1,080 00	
Michell, H	Axeman 37 days 2.50	92 50	
Mills, H	Reader 5 months 25 d. 5.00; repairs to cable, $2	31 34	
Morrison, M	Axeman 61 days 3.00; expenses, $2.80	185 80	
Macdonald, J	Cook 16 " 65.00 per month	33 55	
Mackintosh, I R	Engineer 8 months 125.00; expenses, $37.72	1,037 72	
MacLeod, H C	Packer and Axeman 57 days 3.00; " 3	174 00	
McConnell, J W	Reader 6 months 5.00	30 00	
McLeod, W	Axeman and Packer 25 days 3.00	75 00	
McMillan, H A	Reader 12 " 2.50	30 00	
Newman, C R	Rodman 107 days @ $2; 11 " 2.50; team-hire, $333.	574 50	
Norrington, O F D	Engineer 12 months 175.00, less military pay, $730	1,370 00	
Northey R W	Reader 3 " 4.00 (2 streams); 4 m. 24 d. @ 4	43 62	
Nuttall, W	Guide 2 days @ $3.00	6 00	
Oakes, W H	Reader 6 months 5.00	30 00	
Oliver, C	do 4 " 2.00	8 00	
Patterson, A V	Axeman 35 days 3.00; expenses, $5.50	110 50	
	Carried forward		241,380 56

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward	.....	241,380 56
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Water Rights Branch.—*Continued.*		
	Vote No. 314.—Surveys (General).—Continued.		
Phillips, F	Reader ... 12 months @ $5.00	60 00	
Phillips, L V	Rodman ... 5 days 2.50	12 50	
Pilsworth, W R	Engineer ... 12 months 200.00; expenses, $42.10	2,442 10	
Plant, F M	Rodman ... 2 days 3.25	6 50	
Porritt, C B	Reader ... 3 mos. 22 d. 10.00	37 65	
Powell, H	Rodman ... 2 days 2.50	5 00	
Quaedrlieg, V	Reader ... 5 mos. 12 d. 5.00	27 26	
Rawkins, A B	Rodman ... 54 days 3.25	175 50	
Rourke, K	do ... 18 " 3.00	54 00	
Rourke, W R	Bailiff ... 5 months 100.00	500 00	
Rowlands, J F	Engineer ... 12 " 165.00, less military pay, $700	1,280 00	
Russell, F H	Rodman ... 8 days 3.25	26 00	
Seaman, W	Reader ... 5 mos. 5 d. 2.50	13 00	
Simoneve, N	do ... 5 " 8 d. 3.00	15 75	
Simpson, D D	Rodman ... 11 days 2.00; 16 days @ $3	70 00	
Sismey, E D	do ... 9 mos. 19 d. 75.00	722 50	
Smith, W C	Engineer ... 12 " 125.00; expenses, $471.60	1,721 60	
Strimbolah, E	Axeman and Packer ... 21 days 3.00	63 00	
Sutherland, T	Reader ... ½ month 3.00	1 50	
Thomas, C	Rodman, Axeman, etc ... 35 days 2.50; 38 days @ $2.25	173 00	
Varcoe, C	Engineer ... 12 months 175.00; expenses, $235.75	2,335 75	
William, E S	Axeman ... 40 days 3.00=$120, less groceries, etc., taken over on breaking-up of camp, $65.05	54 95	
Worthington, F H	Packer ... 5 days @ $3.00	15 00	
Wright, J	Reader ... 4 mos. 3 d. 2.00	8 31	
Yetr, C	Services, looking after camp and supplies ... 4 months @ $3	12 00	
Young, Wm	Comptroller of Water Rights, expenses	684 72	
Abrahamson, O W	Lumber	65	
Ballion, H J	Team-hire	28 00	
Bassett, F H	Livery and auto hire, wood, etc	107 60	
Bennet, J	Meals, horse-feed	9 65	
Biggs, G F	Typing, $1; board and lodging, $17	18 00	
Brett, R H	Team-hire, lumber, and labour	46 30	
B A Paint, Co	Wood-alcohol, linseed-oil, etc.	4 65	
B C Telephone Co	Telephone service	110 55	
Brown, R P	Auto-hire	2 00	
Bryant, H	Board, and horse-hire	15 00	
Buff & Buff Mfg Co	Compass-needle for transit	5 52	
Burgess, J	Delivering telephone message	1 25	
Burns, M H	Livery-hire	5 50	
Burns & Son, J	Water-gauges and painting same	8 50	
Calwell, H	Haulage and (paid) freight	63 67	
Canadian Express Co	Expressage	1 25	
C P Railway Co	Freightage	9 58	
C P Telegraph Co	Telegrams	98 50	
City Drug & Stat Co	Films	80	
City Livery	Horse-feed, $29; auto-hire $6	35 00	
City Trans & Whouse Co	Cartage	2 55	
Clarke & Stuart Co, Ltd	Parts for transit	12 85	
Clarke, C E	Board and horse-feed	38 50	
Clements, J H	Films	40	
Clyde, A J	Tin drums and covers for steam-gauges	32 50	
Conlin, K	Typing	5 00	
Cutbill, S N	Horse-hire	19 50	
Dominion Express Co	Expressage	81 09	
Dom Govt Publications	36 copies of Act *re* water in Railway Belt and Peace River	72	
Dom Govt Telegraphs	Telegrams	1 64	
Drake Hardware Co	Hardware	24 10	
Ehalt, J	Room and board	29 50	
Elec B Print & Map Co	Sundry blue-prints and tracings	395 74	
Elliott, W H H	Rent of office and room, $71.50; meals, $102.50; horse-hire, $7.50	181 50	
Ewert, Dr C	Professional services, G. Anderson, $10; board and care, 3 days @ $2=6	16 00	
Feare, W K	Transportation	24 00	
Fernwood Hardware Co	Screws	2 00	
Finlayson, C S	Horse-hire	20 50	
Fleming, H	Developing and printing films	6 89	
Floyd, R M	Repairs to weir	12 00	
Fox, M & H A	Fish-line	1 25	
Franske, Mrs J A	Horse-hire	33 00	
Garvey, R	Team-hire	10 00	
Goldsmith's Stock Co of Canada	Clocks for steam-gauges	54 00	
Gordon, J W	Repairs to office chair	1 25	
Grand Forks Transfer	Cartage	1 00	
G T P Railway Co	Transportation	34 25	
G N Telegraph Co	Telegrams	11 41	
Green Bros, Burden & Co	Blue-prints	5 90	
	Carried forward	.....	241,380 56

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		241,380 56
	XIV.—DEPARTMENT OF LANDS.—*Continued.*		
	Water Rights Branch.—*Continued.*		
	Vote No. 314.—Surveys (General).—Continued.		
Greensfelder, H	Repairs to stop-watch, etc	11 50	
Grierson, H	Cartage	2 50	
Grinder, G	Telegrams, $2.80; board and room and horse-feed, $9	11 80	
Hall, G W	Repairs to motor-boat "Matchless"	10 50	
Harvey, J B	Freightage	3 00	
Hay & Co, R B	Rent of boat-house	9 00	
Hewlett, A E	Horse-hire	26 50	
Hewlett, M A	Provisions	8 20	
Hoff, O	Haulage	16 00	
Honeywell, W C	Repairs to weir	3 00	
Houghtaling, K A	Team-hire	40 00	
Howse & Co, Ltd, A E	Dynamite, caps, fuse	5 10	
Hudson's Bay Co	Groceries, etc	86 33	
Imperial Oil Co, Ltd	Gasolene	112 58	
Inland Express Co, Ltd	Expressage and fare	46 25	
James, G A	Drugs	18 41	
Jenkins Co, Ltd	Livery-hire, $23; launch-hire, $11.50	34 50	
Jeune & Bro, Ltd, F	Repairs to tents	28 20	
Jobe, L E	Repairs to typewriter	5 50	
Laiteven, A	Horse-feed	8 00	
Lamberty, A	Provisions and horse-hire	35 00	
Last, C I	do	31 95	
Lazzerin, J	Team-hire	5 00	
Lemon, Gonnason Co, Ld	Lumber	8 35	
Marquart, P	Cartage	1 00	
Meiss, A	Board and room, $7.50; team-hire, $10; stage fare, $10	27 50	
Michell, J R	Meals, $104.33; team-hire, $128	232 33	
Moffatt, R R	Horse-hire	31 00	
Monte Bello Hotel	Board and meals	40 50	
Morris, S	Overhauling property of Water Department damaged in fire	10 50	
Munslow, C W	(Paid) Hardware, etc	16 80	
McCormack, Wm	Horse-hire	74 00	
McCreery Bros	Rent of office	10 00	
McGregor, A	Making book-shelves, alterations to map-cabinet	21 16	
McGregor, B S	Developing and printing films	2 15	
McLean, D R	Team-hire	6 00	
McLeod, W	(Paid) Meals	12 00	
Nat Drug & Chemical Co	Drugs	4 50	
Nechako Stables	Team-hire	12 00	
Nelson, A	do	30 00	
Nelson Boat & Launch Co	Launch-hire	104 50	
Nelson Hardware Co	Turpentine, varnish	1 95	
Nelson Motor Supply Co	Dry cells for launch	18 50	
Nelson Studio	Developing and printing films	5 40	
Nelson Transfer Co, Ltd	Cartage	2 50	
Norris & Sons, F	Repairs to binocular case and strap	1 00	
N Lbr & Mercantile Co	Rope, canvas, hammers, saws, axes, etc	47 23	
Okanagan Telephone Co	Telephone rent and tolls	58 10	
Parker & Co, W M	Repairs to stop-watch	2 00	
Patricia Hotel	Board, room, etc	74 95	
Penney, M	Groceries and provisions	319 34	
Penticton Corporation	Electric light, $10; scavenging, $6	16 00	
Penticton Electric Co	Copper wire, flash-light battery	95	
Penticton Hardware Co	Oakum, boiled oil, pulley, etc	1 00	
People's Cash Hdwre Co	3 packages Brillo	1 05	
Perry, B C	Hay	10 00	
Phair, E E	Room and board	52 60	
Phillips, F D	Tracing plan	1 00	
Pollard, C R	Auto-hire	45 00	
Porter Hay & Grain Co	Hay	15 53	
Postmaster, Grand Forks	Stamps, $3; rent of post-office box, $3	6 00	
do Kamloops	do 15; " 4	19 00	
do Nelson	do 21; " 4.50	25 50	
do Nicola	Rent of post-office box	1 50	
do Penticton	Stamps, $7; rent of post-office box, $6	13 00	
Porter Hay & Grain Co	Hay	3 93	
Power, J	Water rate	2 50	
Prince George Hotel	Room and meals	26 50	
Prior & Co, E G	Camp-stove, nails, leather-belt lacing, etc	13 53	
Pritchard, W P	Team-hire	17 00	
Provincial Securities Co	Office-rent, $160; water rate, $5	165 00	
Ramsay, H M	Mainspring for stop-watch	2 50	
Rantz, R	Team-hire, room, horse-feed, etc	21 95	
Roos, E J	Repairs to stop-watch	1 75	
Royal Bank of Canada	Horse-hire, $42; payment for horse lost, $50	92 00	
Ruttan, J L	Hotel expenses	3 50	
Salling, H P	Horse-hire	4 00	
	Carried forward		241,380 56

TO WHOM PAID.	FOR WHAT SERVICE.	$ cts.	$ cts.
	Brought forward		241,380 56
	XIV.—DEPARTMENT OF LANDS.—*Concluded.*		
	Water Rights Branch.—*Concluded.*		
	Vote No. 314.—Surveys (General).—Concluded.		
Shepherd, J	Room and board, horse-hire, etc	41 00	
Sherman, W H	Horse-hire	43 00	
Simms, C	Clocks	14 50	
Smith Lbr Co, Ltd, S C	Lumber	8 55	
Spencer, D, Ltd	Mosquito-netting	1 00	
Stallard, J	Horse-hire	24 50	
Standard Furniture Co	Boat-cover	6 50	
Sutherland, J P	Cartage	1 25	
Thomas, C	Provisions	3 00	
Victoria Book & Stat Co	Photographic material, developing, printing	18 22	
Vic Elec B Print & M Co	Blue-prints	21 46	
Victoria Transfer Co	Cartage	2 00	
Wagenhauser, W A	Provisions	4 75	
Waites & Knapton	Aluminium castings, keys, repairs, etc	50 60	
Waters & Pacoe	Dressing off draughting-table	5 35	
Wells, Mrs H G	Horse-hire	4 00	
Westaway, J T	do	75 00	
W Can Ranching Co, Ltd	Board, horse-feed, etc	12 30	
Wilkinson, E W	Livery-hire	5 00	
Windsor, M	Typing	6 50	
Wood-Vallance Hdwre Co	Paint, turpentine, brushes, etc	2 65	
Wyse, D	Blacksmithing	5 00	
Young, A L	Livery-hire	3 50	
			31,979 70
	Vote No. 315.—Temporary Assistance (including Salaries, Office Engineers, and Draughtsmen).		
Davis, E	Chief Engineer, 12 months @ $200	2,400 00	
Gould, E F	Engineer, 12 " 125	1,500 00	
Smith, W C	do 2 " 125	250 00	
Bailey, F	Draughtsman, 2 " 29 d. 75	220 15	
Blane, W	do 2 " 90	180 00	
Case, J M	do 12 months @ $100, less military pay 730	470 00	
Hodgkinson, E T	do 12 months @ 90	1,080 00	
Hatton, A G	do 12 " 75	900 00	
Marriott, E	do 12 " 125	1,500 00	
Marshall, A D	do 9 months @ $90, less military pay $275; allowance while on military duty, 3 months @ $30	625 00	
McKie, E P	do 6 mos. 9 d. @ $90	567 00	
Shakespeare, J M	do 4 " 16 d. 40	180 00	
Hall, W	Clerk, 2 " 12 d. 75	179 00	
Munslow, C W	do 12 " 90	1,080 00	
Ross, Norman, J	do 12 " 90	1,080 00	
Rideout, R	do 2 " 17 d. 65	165 65	
			12,376 80
	Vote No. 316.—Grant to Irrigation Convention at Kamloops.		
W Can Irrigation Assoc'n	Grant to Irrigation Convention at Kamloops		500 00
			286,237 06

A. N. MOUAT, C.A.,
Comptroller-General.

Victoria, B.C.,
24th November, 1917.

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

REPORT

OF THE

COMPTROLLER-GENERAL

OF THE PROVINCE OF

BRITISH COLUMBIA

1917-18

PURSUANT TO THE PROVISIONS OF THE "AUDIT ACT,"
CHAPTER 7, 7 & 8 GEO. V.

PRINTED BY
AUTHORITY OF THE LEGISLATIVE ASSEMBLY.

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

To His Honour Sir FRANK STILLMAN BARNARD, K.C.M.G.,
Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to present to Your Honour statements of the Comptroller-General pursuant to the provisions of the "Audit Act," chapter 7, 7 & 8 George V.

Respectfully submitted,

JOHN HART,

Minister of Finance.

Treasury Department,
Victoria, February 7th, 1918.

VICTORIA, February 7th, 1918.

Hon. John Hart,

Minister of Finance.

SIR.—I have the honour to submit for the information of the Legislative Assembly, pursuant to the provisions of the "Audit Act," chapter 7, 7 & 8 George V., as follows:—

(A.) Statement of Treasury Board Overrulings (pursuant to section 31) and Treasury Board Decisions.

(B.) Statement of Expenditures on Services which have exceeded their Appropriations (pursuant to subsection (*b*) of section 32).

(C.) Statement of Payments charged against the 1917-18 Appropriations which did not occur within the Period of the Account (pursuant to subsection (*c*) of section 32).

(D.) Statement of Special Warrants issued (pursuant to subsection (*b*) of section 24).

(E.) Statement of the Revenue and Expenditure for the First Nine Months of the Present Fiscal Year, viz., from 1st April, 1917, to 31st December, 1917 (pursuant to subsection (*a*) of section 42).

A. N. MOUAT, C.A.,

Comptroller-General.

COMPTROLLER-GENERAL'S REPORT.

(A.)

TREASURY BOARD OVERRULINGS.

RE LEGAL SERVICES CHARGED TO VOTE 312, EXPERT ASSISTANCE.

March 9th, 1917.

MEMORANDUM FOR THE COMPTROLLER OF WATER RIGHTS.

With reference to the enclosed voucher in favour of J. Murphy, amounting to $645, for legal services rendered in drafting proposed amendments to the "Water Act," which you are allocating as a charge against Vote 312, Expert Assistance, I am of opinion that this is not a proper charge against said Vote 312, and that such expenditure properly relates to Vote 83, under which the sum of $15,000 was appropriated by the Legislature for constitutional litigation and general law costs, and the voucher should be so charged.

In view of the decision of the Treasury Board in a similar case, as set out on page 23 of the Auditor-General's Report for 1916-17 (copy of which is enclosed herewith), I fail to see how I can rule otherwise.

WM. ALLISON,
Auditor-General.

(Encl.)

(Copy.)

ATTORNEY-GENERAL,
VICTORIA, March 19th, 1917.

MEMO. FOR MR. GOEPEL, SECRETARY, TREASURY BOARD.

I call your attention to the attached memorandum from our Voucher Clerk concerning payment of the sum of $645 to Mr. James Murphy, barrister, Ashcroft, B.C., for professional services rendered in connection with proposed amendments to the "Water Act."

I can only refer to my predecessor's letter to you on the 27th of December, 1915, and to what he wrote to the Auditor-General on the 20th of December, 1915, which letters appear on page 23 of the Auditor-General's Report, 1916-17, and to assert most strongly that the sum in question should not be charged to this Department, to our Vote No. 83, for the same reasons as are set out in Mr. McLeod's letter to the Auditor-General of the 20th of December.

In this particular case this Department did not retain Mr. Murphy, it did not come to any arrangement with him as to his right to remuneration, knew nothing of his work, and in a sense is in nowise responsible for same. I wish, when occasion arises, that you would submit this particular item to the Treasury Board for ruling.

Anticipating that the Board may confirm the ruling in Corbould-Grant case, I would then suggest to the Board that before any arrangements are made for legal services with any practitioner, that the matter of the proposed arraugement and the remuneration be submitted to this Department first.

The point will arise again in the near future in respect to the question of remuneration of counsel employed by different Ministers for drafting legislation.

I submit that such accounts are properly chargeable against the Legislation Contingent Fund, and should not be charged against the Administration of Justice Vote, which apparently has been the practice for the past two or three years.

The costs of preparing legislation cannot in any sense of the word, in my opinion, be properly said to be costs incurred in the administration of Justice, and I would ask the Treasury Board for a ruling on this point, so that the matter can be definitely settled when bills are presented.

A. M. JOHNSON,
Deputy Attorney-General.

TREASURY DEPARTMENT,
VICTORIA, April 12th, 1917.

The Auditor-General, Victoria, B.C.

SIR,—I beg to advise you that the Deputy Attorney-General has applied to the Treasury Board to have the enclosed voucher for $645 in favour of J. Murphy, Ashcroft, charged to Vote No. 294, "Miscellaneous, not detailed," instead of Vote No. 83 as suggested

I further beg to advise you that at a meeting of the Treasury Board held on the 10th instant it was decided that the said voucher for $645 is to be charged to Vote No. 294.

I have, etc.,
W. J. GOEPEL,
Secretary, Treasury Board.

(Encl.)

April 17th, 1917.

MEMORANDUM FOR THE COMPTROLLER OF WATER RIGHTS.

With reference to your voucher No. 665 in favour of J. Murphy, Ashcroft, for $645, I beg to advise you that the Treasury Board have directed that this expenditure be made a charge against Vote No. 294, Service XIII.

The voucher has so been passed by the Audit Office, and Treasury cheque in payment thereof will issue to you in due course.

WM. ALLISON,
Auditor-General.

April 12th, 1917.

Wm. Young, Esq.,
Comptroller of Water Rights, Victoria, B.C.

SIR,—I am returning herewith voucher in favour of J. Murphy amounting to $105 for legal services rendered *re* amendments to "Water Act," which I submit is not a proper charge against Vote 312, and consequently cannot certify to the issue of a cheque in payment.

I have, etc.,
WM. ALLISON,
Auditor-General.

(Encl.)

June 9th, 1917.

The Secretary, Treasury Board, Victoria, B.C.

SIR,—I have the honour to enclose herewith voucher representing bill of J. Murphy, Ashcroft, amounting to $105, together with correspondence relating thereto, for professional services rendered between 26th and 31st of March last in consultation *re* amendments to "Water Act."

The Comptroller of Water Rights has made this a charge against Vote 312, Expert Assistance, Water Rights Branch (1916-17 Estimates), but it appears to me that the outlay in question is not a proper charge against the said Vote 312, and that same relates to either Vote 83, Constitutional Litigation and General Law Costs, or Vote 24, Legislation.

I may mention that, under directions of the Treasury Board, a previous bill of Mr. Murphy's, amounting to $645 for services in drafting amendments to the "Water Act," was made a charge against Vote 294, Miscellaneous, not detailed in Estimates.

Pursuant to section 36 of the "Audit Act," I have to request that the Treasury Board determine in what manner and to what appropriation the said expenditure shall be charged.

I have, etc.,
Wm. Allison,
Auditor-General.

(Encl.)

Treasury Department,
Victoria, July 31st, 1917.

The Auditor-General, Victoria, B.C.

Sir,—Referring to your letter of the 9th ultimo, enclosing voucher for $105 in favour of J. Murphy, Ashcroft, and asking the Treasury Board to determine to what appropriation the expenditure is to be charged, I have the honour to inform you that at a meeting of the Treasury Board held on the 30th inst. I was instructed to inform you that the said expenditure of $105 in favour of J. Murphy, Ashcroft, is to be charged to Vote No. 292, "Miscellaneous, not detailed." I return voucher.

I have, etc.,
W. J. Goepel,
Secretary, Treasury Board.

RE REFUND OF SPECIAL FIREARMS LICENCE.

Government Agent's Office,
South Fort George, B.C., October 16th, 1917.

A. N. Mouat, Esq.,
Comptroller-General, Victoria, B.C.

Sir,—I beg to enclose herewith cancelled Special Firearms Licence No. 3535, together with badge, and would request that a refund be made to this Agency.

The circumstances of the matter are as follows: Frank Ratkay came to this office and applied for a trapper's licence. He had had one the year before from Mr. Williams direct, with parts of the licence shown cancelled in red ink, and this was also done when the new one was issued. A couple of days after the licence was issued, this man was hauled up by the police for not reporting, being an alien enemy. I sat upon the case and fined him for not having reported. He then started to kick about his trapper's licence, and I looked into the matter and thought it would be better, seeing he was an alien enemy, that the licence be cancelled. I therefore cancelled the licence, refunded him the $10, and forwarded the licence, together with the badge, to Mr. Williams, requesting him to give me a refund. He replied stating that he had no power to make a refund of this nature, but that I should take up the matter with you direct, which I am now doing.

Yours truly,
T. W. Herne,
Government Agent.

(Encl.)

October 24th, 1917.

The Government Agent, South Fort George, B.C.

Our File No. 12—Special Firearms Licence No. 3535.

Sir,—With reference to your letter of 15th instant, I regret that I am unable to approve of payment of this refund. The moment the $10 was received by you from the trapper it became a portion of the general revenue of the Province, and under these circumstances should not have been refunded.

Licence No. 3535, together with the badge, is returned to you herewith.

Yours truly,
A. N. Mouat,
Comptroller-General.

TREASURY DEPARTMENT,
VICTORIA, December 13th, 1917.

The Comptroller-General, Buildings.

YOUR FILE No. 12.

SIR,—Referring to your letter of the 24th October last, addressed to the Government Agent at Fort George, in which you declined to pass a voucher for $10, being refund of Special Fire Arms Licence No. 3535 made by the Agent to one Frank Ratkay, an enemy alien, on the ground that the said sum having been taken into revenue should not have been refunded, I am directed to inform you that at a meeting of the Treasury Board held on the 11th inst. it was resolved that the refund should be allowed.

I shall be pleased, therefore, if when the voucher is again presented, you will pass same. I have notified the Government Agent at Fort George.

I have, etc.,
W. J. GOEPEL,
Secretary, Treasury Board.

TREASURY BOARD DECISIONS.

RULINGS OF THE AUDITOR-GENERAL SUSTAINED BY THE TREASURY BOARD.

RE REFUNDS TO ANDREW LAIDLAW.

December 14th, 1916.

The Government Agent, Ashcroft, B.C.

VOUCHER No. 701.

SIR,—Your Voucher No. 701 is refused payment as to $6,480 on the ground that the money was not justly due to Mr. Laidlaw; that the records of the Lands Department do not disclose that the applications to purchase, except as to those hereinafter set out, had been disallowed previous to the refunds being made; and that section 4 of the "Soldiers' Homestead Act," being chapter 59, 1916, precludes the Department of Lands from authorizing any refunds of deposits on applications to purchase in default at 31st December, 1915.

The following refunds will be passed when submitted on a separate voucher:—

A. to P.	In Name of.	Amount of Deposit.	Date disallowed.
161	Roland C. Laird	$320	15/7/14
173	Chas. Moore	320	22/12/14
271	Ella Warren	320	9/11/14
272	Nettie Laird	320	15/7/14
282	Chas. O. French	160	12/8/14

I have, etc.,
WM. ALLISON,
Auditor-General.

P.S.—Voucher returned herewith.

(Copy.)

MINISTER OF LANDS,
VICTORIA, January 10th, 1917.

The Secretary, Treasury Board, Victoria, B.C.

SIR,—I herewith beg to appeal for relief from the action of the Auditor-General in disallowing Refund Voucher No. 701, submitted by the Government Agent at Ashcroft, as to $6,480 held by the Auditor-General to be an overpayment. The circumstances are as follows:—

Mr. Andrew Laidlaw was interested in some twenty-seven applications to purchase lands which were filed in the Ashcroft office, and in connection with which a deposit of 50 cents per acre was paid.

In dealing with these applications in 1914, the Department of Lands directed the disallowance of five of the said applications and the repayment of deposits amounting to $1,440.

At this time action had been commenced in the Courts by the surveyors who surveyed the lands in question for the payment of moneys due them by Mr. Laidlaw, and the Court appointed a receiver to receive any moneys due to Mr. Laidlaw.

The Government Agent, in consequence of this action, was directed to withhold payment of the refunds for the present.

In September, 1916, the Lands Department was advised that the parties to the litigation had settled their differences, and consent was given to the payment to Laidlaw, or his order, of any moneys due him.

The Government Agent at Ashcroft, on September 5th, was accordingly instructed to carry out the instructions he had received as to the payment of refunds on applications which had been disallowed, involving the payment of $1,440.

Through some misunderstanding the Government Agent refunded all of the twenty-seven deposits in which Mr. Laidlaw was interested, amounting in all to $7,920.

As the lands in question have all been resumed by the Crown through the disallowance of the purchase applications, and have been surveyed at the expense of the purchase applicants, it is requested that relief be given by confirming the payment made by the Government Agent at Ashcroft as to the sum of $6,480 held to be an overpayment.

Yours truly,
T. D. Pattullo,
Minister of Lands.

Treasury Department,
Victoria, January 11th, 1917.

The Auditor-General, Victoria, B.C.

Sir,—The Honourable the Minister of Lands has given notice of appeal to the Treasury Board for relief from your action in disallowing Voucher No. 701, submitted by the Government Agent at Ashcroft, as to $6,480 held by you to be an overpayment.

Will you kindly let me have your reasons for refusing to pass the voucher, so that I may submit the case to the Treasury Board.

I have, etc.,
W. J. Goepel,
Secretary, Treasury Board.

January 15th, 1917.

The Secretary, Treasury Board, Victoria, B.C.

Re Ashcroft Agency Voucher No. 701 for $7,920.

Sir,—Referring to your letter of 11th inst., a voucher in favour of Andrew Laidlaw for $7,920, the original of which I presume is already in your hands, was paid by the Government Agent, Ashcroft, on September 7th, 1916, and purports to be refunds on account of applications to purchase disallowed by the Department of Lands.

The said voucher contains numerous items, but the records of the Lands Department only show the following applications to have been disallowed, and entitled to a refund of the deposit of 50 cents per acre within the meaning of the Act, viz.:—

A. to P.	In Name of.	Amount of Deposit.	Date disallowed.
161	Roland C. Laird	$320	15/7/14
173	Chas. Moore	320	22/12/14
271	Ella Warren	320	9/11/14
272	Nettie Laird	320	15/7/14
282	Chas. O. French	160	12/8/14

The remainder were all applications which had received favourable consideration, and there is nothing on file to show they were disallowed prior to the refund being made; but apparently after receipt of the voucher the following memo. was made on the copy of the Deputy Minister's letter to Mr. Christie, dated September 5th, 1916:—

"25/9/16. D. M. directs that this letter be taken as authority for refunds of all deposits included in Voucher 701 and that allowed applications be marked 'disallowed.'

"W. T."

In this connection attention is directed to the provisions of section 4 of the "Soldiers' Homestead Act," being chapter 59, 1916, which enacts in part:—

"Subject only to the provisions of this Act in regard to the right to proportionate allotment and grant upon payment of taxes, every application for purchase of Crown lands (in respect whereof any default on the part of the applicant to purchase existed on the 31st day of December, 1915) . . . not heretofore completed by payment in full of the purchase price for the land applied for, is hereby abrogated and cancelled, and every right, title, interest, claim, and demand whatsoever of the applicant and those claiming through and under him is hereby abrogated and cancelled, and all the lands comprised in every such application not heretofore completed by the payment in full as aforesaid shall be and are vested in the Crown . . . ."

It would therefore appear:—

(1.) That Mr. Christie had no authority to make refunds amounting to $6,480.

(2.) That the applications to purchase were marked "disallowed" by the Lands Department after receipt of the paid voucher.

(3.) That section 4 of the "Soldiers' Homestead Act" precludes the Lands Department from making refunds of deposits on applications to purchase in default at 31st December, 1915.

I have declined to approve of the refunds, other than the five applications amounting to $1,440, on the ground that there is no legislative authority for the expenditure.

This action is taken under sections 25 and 26 of the "Audit Act."

I have, etc.,

WM. ALLISON,

Auditor-General.

TREASURY DEPARTMENT,

VICTORIA, April 14th, 1917.

The Auditor-General, Victoria, B.C.

RE ASHCROFT AGENCY, VOUCHER No. 701, $7,920.

SIR,—Referring to your letter of the 14th December, 1916, addressed to the Government Agent at Ashcroft, in which you refused to pass certain items for refund of deposit land sales, $6,480, included in Voucher No. 701 for $7,920 in favour of Andrew Laidlaw, on the ground that the money was not justly due, I beg to state that at a meeting of the Treasury Board held on the 10th instant your ruling was sustained.

I enclose original Voucher No. 701 for $7,920, and I shall be pleased if you will segregrate the same and pass a voucher for the items referred to in your letter amounting to $1,440. The disposal of the balance, $6,480, wrongly paid by the Government Agent at Ashcroft, will be dealt with later.

I have, etc.,

W. J. GOEPEL,

Secretary, Treasury Board.

(Encl.)

(Copy of Order in Council.)

No. 576.

Approved 14th May, 1917.

A. C. R.,
D.C., E.C.

To His Honour the Lieutenant-Governor in Council:

The undersigned has the honour to report for the consideration of the Council the following:—

That the Select Standing Committee on Public Accounts has reported to the Legislative Assembly on the payment of $7,920 to Andrew Laidlaw as a refund of money paid on account of lands, and found that the sum of $6,480 was refunded to the assigns of Andrew Laidlaw contrary to Statute.

That the report of the said Select Standing Committee was adopted by the Legislative Assembly on the 4th May instant:

And to recommend that the said sum of $6,480 be written off the books of the Treasury as an irrecoverable debt to the Crown as at the 31st March, 1917.

Dated this 10th day of May, A.D. 1917.

H. C. BREWSTER,
Minister of Finance.

Approved this 10th day of May, A.D. 1917.

H. C. BREWSTER,
Presiding Member of the Executive Council.

May 14th, 1917.

The Deputy Minister of Finance, Victoria, B.C.

SIR,—I am enclosing herewith for disposition, as approved by Order in Council No. 576, voucher in favour of Andrew Laidlaw covering refund of the deposit of 50 cents per acre under certain applications to purchase lands, amounting to $6,480, which was paid by the Government Agent, Ashcroft, contrary to Statute.

I have, etc.,
WM. ALLISON,
Auditor-General.

(Encl.)

RE CHARGING COST OF DYKING TO NURSERY VOTE.

January 25th, 1917.

MEMO. FOR THE DEPUTY MINISTER OF PUBLIC WORKS.

With reference to the enclosed voucher in favour of J. W. Pike for $2,000, on what grounds is dyking to be considered a charge against the appropriation for the Nursery at Essondale?

WM. ALLISON,
Auditor-General.

(Encl.)

PUBLIC WORKS DEPARTMENT,
VICTORIA, January 30th, 1917.

MENTAL HOSPITAL, ESSONDALE—MEMORANDUM FOR AUDITOR-GENERAL.

In reply to your memorandum of the 25th instant, the dyke was built to protect the land required for nursery purposes.

J. W. Pike voucher returned herewith.

J. E. GRIFFITH,
Deputy Minister and Public Works Engineer.

(Encl.)

February 8th, 1917.

The Deputy Minister of Public Works, Victoria, B.C.

SIR,—With reference to voucher submitted from your Department in favour of J. W. Pike, amounting to $2,000 for construction of dyke along border of Coquitlam River, you state in your memorandum of 30th ultimo that this dyke was built to protect the land required for nursery purposes, but on making inquiries I find that this is not the case.

I am again returning voucher herewith, which I shall have to decline to pass for payment on the ground that such expenditure is not a proper charge against Vote 132, Nursery.

I have, etc.,
WM. ALLISON,
Auditor-General.

(Encl.)

PUBLIC WORKS DEPARTMENT,
VICTORIA, February 14th, 1917.

MENTAL HOSPITAL, ESSONDALE—MEMORANDUM FOR THE AUDITOR-GENERAL.

Having reference to your letter of the 8th instant and the voucher of Mr. J. W. Pike for construction of dyke for the Mental Hospital, enclosed is copy of my letter to Dr. McKay and his reply.

Voucher appended hereto.

J. E. GRIFFITH,
Deputy Minister and Public Works Engineer.

(Encl.)

(Copy.)

February 10th, 1917.

J. G. McKay, Esq., M.D.,
Acting Medical Superintendent, Mental Hospital,
Essondale, B.C.

MENTAL HOSPITAL, ESSONDALE.

SIR,—I am returning herewith voucher of J. W. Pike, $2,000. Please note the correspondence that has taken place between the Department and the Auditor-General; copies enclosed. I seemed to be under the impression the dyking was in connection with the nursery land, but the Auditor-General, from inquiries he has made, says not.

Yours obediently,
J. E. GRIFFITH,
Deputy Minister and Public Works Engineer.

(Encl.)

(Copy.)

ESSONDALE, B.C., February 12th, 1917.

The Deputy Minister and Public Works Engineer, Victoria, B.C.

SIR,—I beg to acknowledge your letter of the 10th inst., reference No. 439, returning voucher for $2,000, made out in favour of J. W. Pike for the construction of a dyke along the border of the Coquitlam River.

On looking over our request for estimates for the fiscal year 1916-17, Vote 132 was made out to the Provincial Nursery, Essondale. This might, in a sense, be more or less misleading, but it was done with the idea in view of segregating Colony Farm proper from the land other than that dyked, and ultimately this said land will be used for nursery and vegetable truck.

The appropriation for the dyke was revoted from the previous year and is incorporated in the $13,000 for clearing and breaking 75 acres of new land, as well as construction of the dyke.

I am therefore returning the voucher to you.

I have, etc.,
J. G. McKay,
Acting Medical Superintendent.

February 20th, 1917.

The Deputy Minister of Public Works, Victoria, B.C.

Sir,—With reference to your memorandum of 14th instant, I have already declined to pass voucher of Mr. J. W. Pike, amounting to $2,000 for construction of dyke along border of Coquitlam River, on the ground that such expenditure is not a proper charge against Vote 132, Nursery, and this objection still holds.

From inquiries I have made I find that the dyke in question can by no means be considered as adjacent to or of benefit to that portion of the land at present being utilized for growing vegetable truck, etc., which is designated by the name "Nursery."

In any event such work as dyking can only be considered as relating to the land as a whole, and is properly a capital charge against the Colony Farm.

I have, etc.,
Wm. Allison,
Auditor-General.

(Encl.)

(Copy.)

Public Works Department,
Victoria, February 23rd, 1917.

Mental Hospital, Essondale—Memorandum for the Deputy Minister of Finance.

This Department appeals from the decision of the Auditor-General regarding voucher of J. W. Pike for dyking-work done at the Mental Hospital, Essondale, and begs to have placed before the Treasury Board the correspondence and voucher appended herewith.

J. E. Griffith,
Deputy Minister and Public Works Engineer.

(Encl.)

Treasury Department,
Victoria, February 24th, 1917.

The Auditor-General, Victoria, B.C.

Re Mental Hospital.

Sir,—Referring to your letters of the 8th and 20th instant, addressed to the Deputy Minister of Public Works, in which you refuse to pass a voucher for $2,000 for construction of dyke along border of Coquitlam River on the ground that such expenditure is not a proper charge against Vote No. 132, and that the said amount of $2,000 can only be considered as relating to the land as a whole and is properly a capital charge against the Colony Farm, I beg to state that the Public Works Department have appealed against your ruling to the Treasury Board, and I shall be pleased to know if you have anything further to state in the matter.

I have, etc.,
W. J. Goepel,
Secretary, Treasury Board.

February 26th, 1917.

The Secretary, Treasury Board, Victoria, B.C.

Sir,—I am in receipt of your letter of 24th instant, advising that the Public Works Department have appealed to the Treasury Board against my ruling in refusing to pass a voucher for $2,000 for construction of dyke along border of Coquitlam River.

I have already set out my reasons in previous correspondence for refusing to pass this expenditure and have nothing further to add in the matter.

I have, etc.,
WM. ALLISON,
Auditor-General.

TREASURY DEPARTMENT,
VICTORIA, April 12th, 1917.

The Auditor-General, Victoria, B.C.

RE MENTAL HOSPITAL.

SIR,—Referring to your letters of the 8th and 20th February last, addressed to the Deputy Minister of Public Works, in which you refused to pass a voucher for $2,000 for construction of dyke along border of Coquitlam River on the ground that such expenditure was not a proper charge against Vote No. 132, I beg to state that at a meeting of the Treasury Board held on the 10th instant your ruling was upheld.

Provision will be made in the Supplementary Estimates for the said expenditure of $2,000.

I have, etc.,
W. J. GOEPEL,
Secretary, Treasury Board.

RE DONATION TO CORPORATION OF DELTA.

December 21st, 1916.

The Deputy Minister of Public Works, Victoria, B.C.

SIR,—I am returning herewith voucher in favour of the Corporation of Delta for $100, purporting to be a donation towards repairs of the Sunbury Wharf, which I am unable to pass for payment, for the reason that such expenditure does not appear to be a proper charge against the Government.

It is observed that you are allocating same as a charge against Vote 133, Colony Farm, General Repairs, but I am at a loss to understand how a donation to the Corporation of Delta can be considered as relating to this appropriation.

I have, etc.,
WM. ALLISON,
Auditor-General.

(Encl.)

PROVINCIAL MENTAL HOSPITAL,
ESSONDALE, B.C., December 29th, 1916.

The Auditor-General, Victoria, B.C.

SIR,—I am to-day in receipt of a voucher in favour of the Corporation of Delta, Ladner, for the sum of $100, which Mr. Griffith, Deputy Minister and Public Works Engineer, has returned, accompanied by a copy of your letter to him, and in explanation I would say that in using the word "donation" it is really misleading in this case, as it was not a donation, but simply our proportion of the expenditure for the repair of the said wharf, which was in a dangerous condition.

I am therefore returning the voucher to you, hoping that this explanation will be satisfactory. You will note that we have changed the phraseology of the said voucher.

I have, etc.,
J. G. MCKAY,
Acting Medical Superintendent.

January 5th, 1917.

The Acting Medical Superintendent,
Provincial Mental Hospital, Essondale, B.C.

Sir,—I am in receipt of your letter of 29th ult., returning voucher in favour of the Corporation of Delta, Ladner, with the explanation that the proposed payment of $100 is not a donation, but simply the Government's proportion of the outlay for the repairs of Sunbury Wharf, which was in a dangerous condition.

I am at a loss to understand how it is to be construed that the Government is to be held responsible for the upkeep of municipal wharves.

In the case in point, we may be the greater user of this wharf, but in operating the Sunbury Farm, and paying our proper proportion of taxes, we are in the same position as any other farmer of the community.

If a particular farmer is the greater user of a municipal wharf at a particular point, does the municipality hold him responsible for repairs? I do not think so.

I have already declined to pass your voucher for $100 on the ground that the expenditure is not a proper charge against the Government, and this objection still stands.

I have, etc.,
Wm. Allison,
Auditor-General.

(Encl.)

(Copy.)

Provincial Mental Hospital,
Essondale, B.C., February 6th, 1917.

The Honourable the Treasury Board, Victoria, B.C.

Sirs,—I have the honour to enclose a voucher made payable to the Corporation of Delta for the sum of $100, which has been rejected by the Auditor-General, who states that it is not a proper charge against Vote 133, General Repairs.

The reason for this expenditure was that the wharf at Sunbury, which we use a great deal, was in a deplorable condition and we were endangering our horses in driving over it. The matter was taken up with the municipality, and they requested from us $250 of a $500 expenditure which they had decided to make on repairing same. We finally compromised by offering them $100, feeling that it was much more advantageous to the Government to make this donation than to run the risk of having our horses injured.

Hoping that this explanation will meet with the approval of your Board,

I have, etc.,
J. G. McKay,
Acting Medical Superintendent.

Treasury Department,
Victoria, February 10th, 1917.

The Auditor-General, Victoria, B.C.

Sir,—I beg to inform you that the Acting Medical Superintendent of the Provincial Mental Hospital at Essondale has given notice of appeal to the Treasury Board from your decision to decline to pass a voucher for $100 in favour of the Corporation of Delta for donation towards repairs of the Sunbury Wharf. The reason for your refusal is as set out in your letter of the 5th ultimo. The appeal will probably be heard early next week.

I have, etc.,
W. J. Goepel,
Secretary, Treasury Board.

TREASURY DEPARTMENT,
VICTORIA, April 12th, 1917.

The Auditor-General, Victoria, B.C.

RE COLONY FARM VOUCHER, $100.

SIR,—Referring to your letter of the 5th January last, addressed to the Acting Medical Superintendent, Provincial Mental Hospital, in which you refused to pass voucher for $100 as a grant from the Mental Hospital to the Corporation of Delta, Ladner, for repairs to the Sunbury Wharf, on the ground that the expenditure was not a proper charge against the Government, I beg to state that at a meeting of the Treasury Board held on the 10th instant your ruling was sustained.

In view, however of the facts, the Government will make provision for the payment of the said $100 in the Supplementary Estimates.

I have, etc.,
W. J. GOEPEL,
Secretary, Treasury Board.

RE REFUNDS OF REVENUE COLLECTED IN ERROR.

September 9th, 1916.

MEMORANDUM FOR THE ACTING CHIEF FORESTER, FOREST BRANCH.

With reference to the enclosed requisition by voucher for payment of $2,839.86, as authorized by Order in Council No. 550, to the Nimpkish Lake Logging Company, Limited, by way of compensation for timber erroneously taken from Timber Licences Nos. 6520-1 owing to imperfect departmental maps, I beg to state that such payments can only be made under legislative authority, and as I can find no vote for this purpose, I shall have to decline to certify to the issue of a cheque, on the ground that there is no appropriation.

This action is taken under section 25 of the "Audit Act."

I have, etc.,
WM. ALLISON,
Auditor-General.

(Encl.)

(Copy.)

FOREST BRANCH,
VICTORIA, February 24th, 1917.

MEMO. TO THE SECRETARY OF THE TREASURY BOARD—REFUNDS OF REVENUE COLLECTED IN ERROR.

A specific case is that of a timber sale made by the Department on Cracroft Island in 1914. Logging took place and stumpage per thousand feet of timber cut was collected by the Department over and above the usual royalties.

The boundary of the sale was taken as that of a surveyed licence adjoining, but resurvey by the licensee overlapped the licence on to the timber sale area to the extent of 137 acres. The Department was then placed in the position of having sold timber belonging to a licensee.

Settlement was arranged so that stumpage received should be paid over to the licensee; this was approved by Order in Council 550, approved June 21st, 1916; voucher was drawn providing for refund of revenue that had thus been collected in error; but the Auditor-General took the position that such a payment could only be made under legislative authority, and there being no vote for such a purpose the voucher as drawn could not be passed by his office.

The voucher in question is attached hereto with the Auditor-General's memorandum.

My contention is that as collections are paid to the credit of different revenue accounts, so also the correction of errors in such collections should be to the debit of such accounts by refund voucher.

M. A. GRAINGER,
Chief Forester.

Treasury Department,
Victoria, April 12th, 1917.

The Auditor-General, Victoria, B.C.

Sir,—With reference to your letter of the 9th September last, addressed to the Chief Forester, in which you refused to pass voucher for refund of certain timber royalties to the Nimpkish Lake Logging Co. amounting to $2,839.86, I beg to state that at a meeting of the Treasury Board held on the 10th instant your ruling was upheld.

Provision for the payment will be made in the Supplementary Estimates.

I have, etc.,
W. J. Goepel,
Secretary, Treasury Board.

RE REFUND OF LEASE RENTALS.

March 3rd, 1917.

The Chief Forester, Forest Branch, Victoria, B.C.

Sir,—With reference to vouchers submitted by you for the following refunds under alleged authority of Order in Council approved 24th February, 1915, viz.:—

Thornton Fell, Victoria, B.C.—Refund of amount paid in excess as rental of Lease No. 4, covering Lot 44, Sayward. Term of original lease expired on 16th March, 1909.		
Rental paid from 16th March, 1912, to 16th March, 1915, at rate of $630 per year (three years) ..	$1,890 00	
Should have been at rate of $450 per year (three years)	1,340 00	
		$ 540 00
Thornton Fell, Victoria, B.C.—Refund of amount paid in excess as rental of Lease No. 3, covering Lot No. 43, Sayward. Term of original lease expired 16th March, 1909.		
Rental paid from 16th March, 1912, to 16th March, 1915, at rate of $175.35 per year (three years)	$ 526 05	
Should be at rate of $125.25 per year (three years)	375 75	
		$ 150 30
Land, Log & Lumber Company, Limited, Minneapolis, Minn.—Refund of rental paid in excess on lease covering Lot 111, Sayward. Term of original lease expired March 18th, 1911.		
Rental paid from date of expiry to March 18th, 1915, at $2,454.90 per year (four years)	$9,819 60	
Should have been $1,753.50 per year (four years)	7,014 00	
		$2,805 60

I presume that the Order in Council in question is based upon section 53 of the "Revenue Act," but I am of opinion that the said section does not apply in this case, and before the refunds can legally be made it will be necessary to have a vote of the Legislature covering same.

The fees derived from the leases have become part of the Consolidated Revenue Fund, and the amount or any portion thereof cannot be remitted except under legislative authority.

So far as I can perceive, no such authority exists; consequently I am precluded by the "Audit Act" from authorizing payment.

The vouchers are returned herewith.

I have, etc.,
Wm. Allison,
Auditor-General.

(Encl.)

(Copy.)

FOREST BRANCH,
VICTORIA, March 3rd, 1917.

MEMO. TO THE SECRETARY OF THE TREASURY BOARD—REFUND OF REVENUE COLLECTED IN ERROR.

Timber leases renewed in perpetuity were required to take on new rental conditions on expiry of each twenty-one-year period, such conditions being fixed by the provisions in the Act at such time of expiry.

In 1905 all timber lease conditions were abolished from the Act, no provision being made for lease renewal as above.

For years after, leases kept falling due for new rental conditions and there were none left in the Act to be applied to them. An effort was made to make them pay the same as for licences (21 cents an acre), and the Land, Log & Lumber Company (among others) paid this under protest.

Subsequently the matter went before the Attorney-General, who ruled that the correct rate payable was 15 cents per acre, this having been the last rate established in the Act, and there having been a reference therein (at the time of repeal of leasehold conditions) that the rights of *bona-fide* lessees should not be injured by repeal.

Refund of $2,806.60 to the Land, Log & Lumber Company and $690.30 to Thornton Fell (the difference between the 21-cent rental then paid under protest and the true amount) must therefore be made. As this was "revenue collected in error," I contend that *refund* should be made from *revenue*. In view of the objection taken by the Auditor-General your ruling on this point is desired.

M. A. GRAINGER,
Chief Forester.

TREASURY DEPARTMENT,
VICTORIA, April 12th, 1917.

The Auditor-General, Victoria, B.C.

SIR,—Referring to your letter of the 3rd ultimo, addressed to the Chief Forester, in which you refused to pass the following vouchers for refund of lease rentals on the ground that no authority existed for the payment:—

Thornton Fell	$ 540 00
Thornton Fell	150 30
Land, Log & Lumber Co., Ltd.	2,805 60
	$3,495 90

I beg to state that at a meeting of the Treasury Board held on the 10th instant your ruling was sustained.

Provision will be made for this expenditure in the Supplementary Estimates.

I have, etc.,
W. J. GOEPEL,
Secretary, Treasury Board.

(B.)

UNPROVIDED ITEMS IN EXPENDITURE FOR THE FISCAL YEAR ENDED 31st MARCH, 1917.

STATEMENT of Expenditures on Services which have exceeded their Appropriations, from 1st April, 1916, to 31st March, 1917, and for which Overexpenditure the Sanction of Parliament is required.

No. of Vote.	SERVICE.	Total Appropriation.	Total Expenditure.	Overexpended.
	VI.—HOSPITALS AND CHARITIES.			
37	Grants to Hospitals	$275,000 00	$280,985 55	$5,985 55

(C.)

STATEMENT OF PAYMENTS CHARGED AGAINST THE 1917-18 APPROPRIATIONS WHICH DID NOT OCCUR WITHIN THE PERIOD OF THE ACCOUNT.

SERVICE IV.

Vote No.	Date of Service.	Name.	Particulars.	Amount.
22	February, 1916, to March, 1917	Stewart, J.	Registrar of Voters, Newcastle Electoral District, 14 months @ $50 per annum	$58 33
23	Sept., 1916	Hyland's Estate, John	9 yards of canvas for polling-booth	4 50
25	Jan., 1917	Courtney, C. K.	Services rendered prior to the opening of the Session of 1917	50 00

SERVICE V.

31	May, 1914	Henry Nursery & Seedhouse, The	12 swarms bees and supplies, $341.25; interest, $62.05	$403 30
32	Jan., 1916	Burris & Archibald	Examination and certificate of insanity	5 00
33	Feb. to March, 1916	News Publishing Co., Ltd., The	Rebinding books, Land Registry Office, Nelson	30 00

SERVICE VI.

42	December, 1916, to March, 1917	Wood, W. H.	For money expended on behalf of E. Alexander	$55 00
42	March, 1917	Deighton, A. G.	Supplies to Mrs. Chris Peterson	18 55
42	March, 1917	"	Supplies to Mrs. Hennerd	6 20

SERVICE VII.

67	Nov., 1916	Witness fees and expenses	Rex *v.* Luey Hope	$ 9 90
69	Nov., 1916	Peters, Dennis	Services as Interpreter, Rex *v.* Luey Hope	4 00
69	December, 1916, to March, 1917	Herchmer & Martin	Counsel fees	40 00
69	Feb., 1917	Ogilvie, W. P.	Counsel fees, Rex *v.* Sicinis	25 00
70	Dec., 1916	Gomm, W. E.	Viewing body of W. P. McClurg	5 00
72	Feb. to March, 1917	Levy's Restaurant	Meals for prisoners	2 45
72	Nov. to Dec., 1916.	Elko Water, Light & Power Co.	Water-rent, Nov. and Dec. 1916, Elko Police Office	4 00
72	March, 1917	Scarlett, Mrs. J. P.	Meals for prisoners	67 50
75	April to Oct., 1913.	Millard, Dr. H. P.	Medical examinations and expenses in connection with inquests	71 00
77	July, 1916, to March, 1917	Crow's Nest Pass Coal Co., Ltd.	Electric light, Michel Lock-up, 9 months @ $5.10 per month	45 90
78	February, 1914, to Jan., 1915	Lafleur, MacDougall, Macfarlane & Pope	Legal advice *re* Companies reference *re* John Deere Plough Co.	100 00
79	Dec., 1916	Hawkins, F. G., J.P.	Expenses, Rex *v.* Hansen	5 50

SERVICE VIII.

93	April, 1915, to Jan., 1917	Trustees, Telegraph School District	Grant for incidental expenses	$11 50

SERVICE IX.

95	Nov. to Dec., 1916.	Robertson, W. F.	Travelling expenses, Fernie and return	$128 25

STATEMENT OF PAYMENTS CHARGED AGAINST 1917-18 APPROPRIATIONS—*Concluded.*

SERVICE XII.

Vote No.	Date of Service.	Name.	Particulars.	Amount.
126	Nov., 1916	Osler, F. & C., Ltd	Electric-light fittings	$663 90
128	Jan., 1917	Mackay & Gillespie, Ltd.	6,000 lb lump coal @ $7.75 per 2,240 lb	20 75
142	1913	Thompson, H. A	Grading, levelling, seeding to grass, and fencing site of excavation on his property at Nicomen Island	37 00
148	Oct. to Nov., 1916.	Mouat Bros	Lumber and spikes	9 05
178	Dec., 1916, to Jan., 1917	Brady, J. C.	Salary and expenses as Engineer, Toby Road Cut-off.	311 90
179	Feb., 1917	Pay-list (Foreman J. L. MacKay)	Toby Creek Dam	234 00
179	March, 1917	" " "	Toby Creek Dam	677 50
183	November, 1916, to March, 1917	Horwell, A.	Bolts, spikes, and repairs to pile-driver	51 73
183	Nov., 1916	Vancouver Engineering Works, Ltd.	Casting, etc., Nechako River Bridge.	64 05
183	Jan. to March, 1917	Dahl, Peter	Claim for personal injury, 33 days @ $2	66 00
187	Dec., 1916	Faber, J. P.	2 days' labour, Brisco Ferry, omitted from pay-list	6 00
205	Jan., 1917	Schaake Manufacturing Co.	Repairing rudder stock, S.S. "W. H. Ladner"	82 40

SERVICE XIII.

256	Nov. to Dec., 1916.	Black, Donald, M.D.	Fees for examinations of pupils and mileage	$ 79 00
273	March, 1917	Imperial Oil Co., Ltd., The	Gasolene for launch "Wakesia"	41 12
273	March, 1917	Exley, J. W.	Repairs to launch "Wakesia"	13 00
275	March, 1917.	Carswell Company, The	Bligh statutory annotations	5 00
282	April, 1913	B.C. Electric Railway Co.	Maintaining Provincial Government track on Westminster Bridge and west approach	130 52
283	July, 1915, to Nov., 1916	Jones & Rant	Balance of track-rental	33 10
289	Jan. to March, 1917	Bruce, R. R.	3 months' rent of building used as Government Office, Wilmer	24 00
292	1916	Corporation of the City of Nanaimo	Second payment account proportion of cost of improvements, Lots 15 and 16, Block 55	95 20

SERVICE XIV.

295	Jan. to Feb., 1916.	Walsh, W. H	Supplies, launch "Alanbee"	$ 6 60
295	Feb., 1917	Noot, J. R.	Travelling expenses, Feb. 17-23, 1917	27 50
306	Oct. and Nov., 1916	Mills, H.	2 months' allowance as Observer, Mission Creek	10 00

(D.)

STATEMENT OF SPECIAL WARRANTS ISSUED BETWEEN THE SESSIONS OF 1917 AND 1918.

Date of Approval.	No. of Warrant.	Service.	Amount of Warrant.	Expenditure.
		TO MEET EXPENDITURE FOR THE FISCAL YEAR ENDING 31ST MARCH, 1918.		
		II.—CIVIL GOVERNMENT (SALARIES).		
Aug. 27, 1917	1	Provincial Normal School, Vancouver, additional to amount available in Estimates for Assistant Master at $2,400	$ 400 00	
Sept. 12, 1917	8	Supreme and County Courts, Victoria, O. H. C. Barton, (additional salary).	72 00	$ 60 00
" 12, "	8	" " " L. P. Woodruff (salary from 15th June, 1917)	915 20	723 20
" 12, "	9	Land Registary Office, Vancouver, G. W. Emery (salary from 21st April, 1917)	1,326 00	764 66
" 12, "	9	" " J. W. Tillotson (salary from April 7th, 1917)	1,132 80	693 87
" 25, "	12	Department of Mines, D. E. Whittaker (additional salary)	275 38	196 70
" 26, "	13	Department of Railways, M. E. Moreton (additional salary)	60 00	50 00
" 27, "	14	Land Registry Office, Kamloops, additional to amount available in Estimates for 1 Clerk at $1,080	42 00	
" 27, "	14	Land Registry Office, Kamloops, R. T. Thorburn (salary from 12th September, 1917)	709 77	348 80
Dec. 3, "	27	Legislative Library, Mrs. J. H. McGregor (additional salary)	60 00	50 00
" 12, "	28	Provincial Police, 9 Chief Constables (additional salary for 6 months in lieu of licence inspection fees)	540 00	330 00
" 15, "	30	Government Agency, Anyox, H. Andrew (salary from 1st October, 1917)	900 00	450 00
Jan. 8, 1918	36	Superintendent of Provincial Police, additional to amount available in Estimates	160 00	
		III.—ADMINISTRATION OF JUSTICE.		
Jan. 8, 1918	35	Warden, Oakalla Prison Farm, additional to amount available in Estimates	80 00	
		IV.—LEGISLATION.		
Sept. 18, 1917	10	Expenses in connection with inquiries by Select Standing Committees (additional to amount voted)	3,000 00	599 56
Jan. 19, 1918	37	Expenses of Elections (additional to amount voted)	7,500 00	
		V.—PUBLIC INSTITUTIONS (MAINTENANCE).		
Feb. 6, 1918	46	Mental Hospital, Essondale (salaries of employees), additional to amount voted	1,000 00	
" 6, "	47	Colony Farm, Essondale (maintenance), " "	5,000 00	
		VI.—HOSPITALS AND CHARITIES.		
Oct. 26, 1917	20	Special Grants to Hospitals (additional to amount voted)	10,000 00	4,135 00
		X.—AGRICULTURE.		
Sept. 28, 1917	15	Stocking and operating "Frondeg Farm"	10,000 00	9,069 93
		XI.—REVENUE SERVICES.		
Feb. 4, 1918	43	Commission, Courts of Appeal, travelling expenses, and miscellaneous (additional to amount voted)	15,000 00	490 06
		XII.—PUBLIC WORKS.		
Aug. 27, 1917	2	Special Guard, Parliament Buildings (additional to amount voted)	1,080 00	1,080 00
" 29, "	7	Armstrong, Morrison & Company, Ltd., interest on deferred payments, contract Pitt River Bridge	1,240 00	1,240 00
Oct. 27, "	21	Ferry, Skeena River, Breckenridge (additional to amount voted)	280 00	162 13
" 27, "	22	Bridge-tender at Eburne (additional to amount voted)	80 00	
Nov. 12, "	25	Roads, streets, bridges, and wharves, Richmond District (additional to amount voted)	2,000 00	
Dec. 28, "	31	Roads, streets, bridges, and wharves, Cariboo District (additional to amount voted)	3,000 00	
" 28, "	32	Roads, streets, bridges, and wharves, Dewdney District (additional to amount voted)	2,700 00	
" 28, "	33	Roads, streets, bridges, and wharves, Omineca District (additional to amount voted)	7,500 00	5,220 49
Jan. 5, 1918	34	Renewing fencing fronting part of Section 4, R. 4, E. Saanichton Bay Road	144 00	118 80
" 21, "	38	Colony Farm, Essondale, purchase of 386.48 acres of Lots 168, 169, and 313, G. 1, N.W.D.	41,000 00	10,000 00
" 23, "	39	Repairs to Parliament Buildings (additional to amount voted)	1,000 00	61 89
" 23, "	40	Mental Hospital, Essondale, general repairs (additional to amount voted)	1,000 00	
" 23, "	41	Ferry, Skeena River, Terrace (additional to amount voted)	550 00	93 46
" 25, "	42	Boiler inspection, launch "Adanac" (additional to amount voted)	400 00	
Feb. 6, "	44	Mental Hospital, Essondale (new laundry) (additional to amount voted)	7,000 00	
" 6, "	45	Ferry, West Arm, Kootenay Lake, at Nelson (additional to amount voted)	550 00	

STATEMENT OF SPECIAL WARRANTS, 1917 AND 1918—*Concluded.*

Date of Approval.	No. of Warrant.	Service.	Amount of Warrant.	Expenditure.
		XIII.—MISCELLANEOUS.		
Aug. 27, 1917	3	Gratuity to S. R. Roe, ex-Registrar of Titles, Nelson, equivalent of 3 months' salary	$ 780 00	$ 780 00
" 28, "	5	Gratuity to the widow of the late R. A. Elliott, equivalent of 3 months' salary	258 00	258 00
" 28, "	5	" " R. E. Green, " "	342 00	342 00
" 28, "	5	" " T. H. Spilling, " "	225 00	225 00
" 28, "	5	" " T. B. Lowe, " "	225 00	225 00
" 28, "	5	" " O. Gammond, " "	225 00	225 00
" 28, "	5	" " R. H. Louis, " "	270 00	270 00
" 28, "	5	" " A. Halsted, " "	225 00	225 00
" 28, "	6	Superannuation, Mrs. R. Butler, 9 months to 31st March, 1918	270 00	210 00
" 28, "	6	" S. Y. Wootton, 13½ " "	1,350 00	1,150 00
Sept. 20, "	11	" F. C. Gamble, 9 " "	900 00	700 00
Oct. 5, "	16	Grant to Governors of the University of British Columbia (additional to amount voted)	50,000 00	5,000 00
" 12, "	17	Fire-insurance premiums, Fairview Works, Fairview	660 04	660 04
" 12, "	18	Superannuation, C. R. Nairne, 5 months to 31st March, 1918	450 00	270 00
" 27, "	19	Refunds (additional to amount voted)	15,000 00	10,116 72
" 31, "	23	Gratuity to the mother of the late Edith Lund, equivalent of 3 months' salary	210 00	210 00
Nov. 29, "	26	Superannuation, J. A. McMartin, 5 months to 31st March, 1918	200 00	120 00
Dec. 13, "	29	Grant in aid of sufferers in the Halifax disaster	50,000 00	50,000 00
Feb. 7, 1918	48	Advance to trustees of Rutland School District, in addition to amount limited by section 80A of the "Public Schools Act"	500 00	.....
		XIV.—DEPARTMENT OF LANDS.		
Sept. 6, 1917	4	Loan to Naramata Water Committee	500 00	500 00
Nov. 12, "	24	Compensation to Yorkshire Guarantee and Securities Corporation, Ltd., for timber cut from Lot 1271, N.W.D.	1,480 35	1,480 35

(E.)

STATEMENT SHOWING THE REVENUE AND EXPENDITURE FOR THE 1st APRIL TO 31st

REVENUE.

Dominion of Canada:	
Interest	$ 14,575 53
Subsidy	90,000 00
Grant *per capita*	156,992 00
For lands conveyed	50,000 00
Land sales	144,351 65
Land revenue	56,598 85
Survey fees	4,876 41
Rents (exclusive of land)	110 00
Timber licences	829,878 03
Timber leases	41,574 72
Timber royalty	599,120 31
Timber sales	100,210 76
Log-scaling fees	47,998 95
Water rentals	16,565 33
Water records	5,876 30
Real property tax	935,722 66
Personal-property tax	481,246 72
Poll-tax	276,015 00
Land-taxes, wild, coal, and timber lands	640,423 27
Income-tax	637,649 45
Mineral-tax	202,068 81
Tax on unworked Crown-granted mineral claims	35,573 67
Coal and coke tax	108,733 31
Registered taxes	15 11
Tax-sale deeds	70 00
Trade and liquor licences	11,476 50
"Prohibition Act," sale of liquor	6,177 10
Game licences	62,925 00
Dog licences	761 00
Marriage licences	11,375 00
Fishery and cannery licences	39,424 00
Licences, taxes, and fees under Insurance Acts	62,524 72
Fees for incorporation of joint-stock companies, etc	37,905 55
Fees under "Motor-traffic Regulation Act"	85,604 00
Boiler inspection and examination fees	24,854 56
Fees under "Moving Pictures Act"	10,051 37
Amusement tickets tax	61,362 05
Free miners' certificates	50,765 75
Mining receipts, general	57,921 95
Fines and fees of Court	18,252 70
Probate fees	30,324 94
Succession duty	189,275 99
Law-stamps	40,551 60
Registry fees	125,392 49
Reimbursements in aid	7,957 80
Interest on Investment of Sinking Funds	71,737 60
Dyking debentures, accrued interest on investment of Sinking Fund	1,739 70
Interest, miscellaneous	71,504 30
Revenue Service refunds	663 44
Printing Office	30,908 72
Bureau of Mines	940 00
Mental Hospital	36,869 97
Provincial Home	11,431 40
"Dyking Assessment Act, 1905" (interest on fixed capital)	19,080 07
Sale of Government property	7,273 30
Traffic tolls, New Westminster Bridge	32,580 57
Miscellaneous receipts	98,811 32
Net revenue	$6,794,671 30

LOANS.

"Revenue Act, 1911," Special Overdraft	$1,000,000 00	
"Loan Act, 1916," Treasury Bill Issue No. 2	800,000 00	
"Loan Act, 1917," Treasury Bill Issue	250,000 00	
"Loan Act, 1917," Debenture Issue	300,000 00	
		$2,350,000 00
Total		$9,144,671 30

(E.)

FIRST NINE MONTHS OF THE PRESENT FISCAL YEAR, VIZ., FROM DECEMBER, 1917.

EXPENDITURE.

CHARGEABLE TO INCOME.

I.—Public Debt:		
Interest	$ 889,576 18	
Premium and exchange	121 78	
Discount and commission	45,047 09	
		$ 934,745 05
II.—Civil Government (Salaries)		928,487 60
III.—Administration of Justice (Salaries)		32,035 23
IV.—Legislation		9,431 51
V.—Public Institutions:		
Bureau of Mines	$ 1,525 10	
Mine-rescue Stations	1,502 43	
Fisheries	10,852 96	
Mental Hospital, Essondale	94,329 64	
Colony Farm, Essondale	30,835 27	
Nursery, Essondale	4,392 24	
Mental Hospital, New Westminster	74,017 05	
Printing Office, Victoria	29,437 84	
Provincial Home, Kamloops	12,275 08	
Provincial Museum	1,381 12	
Industrial School for Boys	7,309 94	
Industrial School for Girls	3,433 56	
		271,292 23
VI.—Hospitals and Charities		249,636 89
VII.—Administration of Justice (other than Salaries)		98,155 83
VIII.—Education		786,686 26
IX.—Transport		25,226 70
X.—Department of Agriculture		90,542 97
XI.—Revenue Services		24,042 14
XII.—Public Works:		
Works and Buildings	$ 137,768 49	
Roads, Streets, Bridges, and Wharves	920,169 00	
Subsidies and Maintenance, Steamboats, Ferries, and Bridges	41,921 31	
Miscellaneous	51,902 08	
		1,151,760 88
XIII.—Miscellaneous		730,124 87
XIV.—Department of Lands		212,720 87
Net expenditure chargeable to income		$5,544,889 03

CHARGEABLE TO INVESTMENT ACCOUNT.

Sinking Fund, "Loan Act, 1914"	$ 291,000 00	
" "Loan Act, 1915"	254,715 00	
" "Loan Act, 1916"	162,757 64	
		708,472 64

CHARGEABLE TO LOANS.

Redemption of Debentures, "Loan Act, 1887"	381,210 00

CHARGEABLE TO CAPITAL.

Pacific Great Eastern Railway:		
Loan Account	$ 828,672 91	
Interest on Guaranteed Bonds	423,175 01	
Nakusp & Slocan Railway:		
In excess of earnings	24,045 56	
Land Settlement Board	74,994 09	
		1,350,887 57
Total		$7,985,459 24

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

ESTIMATES

OF THE

REVENUE AND EXPENDITURE

OF

BRITISH COLUMBIA

FOR THE

FISCAL YEAR ENDING 31st MARCH

1919

PRINTED BY
AUTHORITY OF THE LEGISLATIVE ASSEMBLY.

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

ESTIMATED REVENUE

FOR THE

Fiscal Year ending 31st March, 1919.

DEPARTMENT OF AGRICULTURE:		
Frondeg Farm	$ 5,000 00	
Horticultural Inspection Fees and Licences	18,000 00	
Miscellaneous	6,340 00	
		$ 29,340 00
DEPARTMENT OF THE ATTORNEY-GENERAL:		
Dog Licences	$ 1,000 00	
Fees for Incorporation of Joint-stock Companies, etc.	35,000 00	
Fees under "Moving Pictures Act"	17,360 00	
Fees under "Motor-traffic Regulation Act"	150,000 00	
Fines and Fees of Court	20,000 00	
Game Licences	60,000 00	
Land Registry Fees	150,000 00	
Law Stamps	50,000 00	
Reimbursements for Keep of Prisoners	10,000 00	
Trade Licences	20,000 00	
Miscellaneous	1,000 00	
		514,360 00
DEPARTMENT OF FINANCE:		
Dominion of Canada:		
Annual payment of:		
Interest	$ 29,151 06	
Subsidy to Government and Legislature	180,000 00	
Grant *per capita* on 392,480	313,984 00	
For Lands conveyed	100,000 00	
	$ 623,135 06	
Amusements Tickets Tax	220,000 00	
Coal and Coke Tax	160,000 00	
Income Tax	2,215,000 00	
Land Taxes:		
Real Property Tax	1,000,000 00	
Wild Land, Coal and Timber Lands	700,000 00	
Mineral Tax	85,000 00	
Personal Property Tax	600,000 00	
Poll Tax	300,000 00	
Taxes on Unworked Crown-granted Mineral Claims	40,000 00	
Tax Sale Deeds	500 00	
Interest (Miscellaneous)	75,000 00	
Interest on Investment of Sinking Funds	190,000 00	
Interest on Fixed Capital "Dyking Assessment Adjustment Act, 1905"	19,080 07	
Licences, Taxes, and Fees under Insurance Acts	63,225 00	
Rents	15,000 00	
Revenue Service Refunds	4,500 00	
Sale of Government Property	3,000 00	
Probate Fees	75,000 00	
Succession Duties	300,000 00	
Miscellaneous	20,000 00	
		6,708,440 13
Carried forward		$7,252,140 13

ESTIMATED REVENUE—*Concluded.*

Brought forward		$7,252,140 13
DEPARTMENT OF FISHERIES:		
Fishery and Cannery Licences		38,000 00
DEPARTMENT OF LANDS:		
Land Sales	$ 50,000 00	
Land Revenue	75,000 00	
Survey Fees	500 00	
Rents (exclusive of Land)	100 00	
Timber Licences	1,200,000 00	
Timber Leases	74,000 00	
Timber Royalty	560,000 00	
Timber Sales	125,000 00	
Log-scaling Fees	40,000 00	
Water Rentals	70,000 00	
Water Recording Fees	6,000 00	
Sale of Maps, etc.	1,300 00	
Miscellaneous	1,150 00	
		2,203,050 00
LEGISLATION:		
Private Bills Fees		2,000 00
DEPARTMENT OF MINES:		
Bureau of Mines	$ 1,000 00	
Fees for Coal-mine Managers' and Coal-miners' Examinations and Certificates	1,000 00	
Free Miners' Certificates	50,000 00	
Mining Receipts, General	60,000 00	
Miscellaneous	100 00	
		112,100 00
DEPARTMENT OF THE PROVINCIAL SECRETARY:		
Colony Farm	$ 5,000 00	
Mental Hospitals	40,000 00	
Provincial Home	5,000 00	
Fees for Teachers' Examinations and Certificates	2,000 00	
Sale of Text-books	1,000 00	
Printing Office	140,000 00	
Marriage Licences	14,000 00	
Vital Statistics	2,000 00	
Copies of Voters' Lists	2,500 00	
Hospital Licences	165 00	
Notaries Public and Commissioners' Fees	2,000 00	
Miscellaneous	1,000 00	
		214,665 00
DEPARTMENT OF PUBLIC WORKS:		
Boiler Inspection and Examination Fees	$ 26,500 00	
Electrical Energy Inspection	5,500 00	
Sale of Government Property	5,000 00	
Wharfage and Dock Dues	5,000 00	
Miscellaneous	100 00	
		42,100 00
DEPARTMENT OF RAILWAYS:		
Traffic Tolls, New Westminster Bridge		36,000 00
Total		$9,900,055 13

ESTIMATED EXPENDITURE

FOR THE

Fiscal Year ending 31st March, 1919.

SUMMARY

No. of Vote.	SERVICE.	Page.			
	CURRENT ACCOUNT.				
1.	PUBLIC DEBT	7			$1,409,678 08
2.	LEGISLATION	8			100,000 00
3.	PREMIER'S OFFICE	8			12,750 00
	DEPARTMENT OF AGRICULTURE:				
4.	Minister's Office	8	$	9,920 00	
5.	General Office	9		39,979 00	
6.	Horticultural Branch	9		41,492 00	
7.	Live Stock Branch	10		38,793 00	
8.	Miscellaneous grants, etc.	10		89,500 00	
					219,684 00
	DEPARTMENT OF THE ATTORNEY-GENERAL:				
9.	Attorney-General's Office	11	$	11,100 00	
10.	General Office	11		26,760 00	
11.	Joint-stock Companies and Insurance Branch	11		7,380 00	
12.	Municipal Branch	12		6,335 00	
13.	Censor of Moving Pictures	12		15,722 00	
14.	Administration of "Prohibition Act"	12-13		30,405 00	
15.	Provincial Library and Archives	13		18,000 00	
16-21.	Land Registry Offices	14-16		142,193 00	
22-30.	Supreme and County Courts	17-19		66,018 00	
31.	Provincial Police	19-20		306,510 00	
32-34.	County Gaols	20-21		95,113 00	
35-36.	Industrial Schools	21-22		54,190 00	
37-51.	Miscellaneous	23		130,050 00	
					909,776 00
	DEPARTMENT OF EDUCATION:				
52.	General Office	23	$	27,534 00	
53.	Free Text-book Branch	24		68,556 00	
54.	Agricultural Education	24		9,250 00	
55.	Industrial Education	24		18,335 00	
56.	Inspection of Schools	24-25		44,740 00	
57.	Normal School, Vancouver	25		28,810 00	
58.	Normal School, Victoria	25-26		28,065 00	
59-71.	Miscellaneous	26		1,552,000 00	
					1,777,290 00
	Carried forward				$4,429,178 08

No. of Vote.	SERVICE.	Page.			
	Brought forward				$4,429,178 08
	CURRENT ACCOUNT—*Continued.*				
	DEPARTMENT OF FINANCE:				
72.	Minister's Office	26	$	10,780 00	
73.	General Office	27		25,051 00	
74.	Inspector of Trust Companies and Probate and Succession Duties	27		10,920 00	
75.	Controlling and Audit Branch	27-28		42,970 00	
76.	Surveyor of Taxes	28		79,630 00	
77.	Bureau of Information	28		7,500 00	
78.	Agent-General's Office, London, England	28-29		81,095 00	
79-118.	Government Agents and Assessors, etc.	29-39		357,472 00	
119-124.	Miscellaneous	39		77,186 00	
					692,604 00
125.	DEPARTMENT OF FISHERIES	40			17,175 00
	DEPARTMENT OF LANDS:				
126.	Minister's Office	40	$	11,110 00	
127.	General Office	40		81,482 00	
128.	Lands Branch	40		7,144 00	
129.	Forest Branch	41		132,876 00	
130.	Water Branch	41		31,280 00	
131.	Survey Branch	41		42,816 00	
132.	Temporary assistance	41		10,000 00	
133.	Expenses	42		84,700 00	
134-145.	Miscellaneous	42		296,200 00	
					697,608 00
146.	DEPARTMENT OF LABOUR	42			16,170 00
	DEPARTMENT OF MINES:				
147.	Minister's Office	43	$	9,550 00	
148.	General Office	43		16,800 00	
149.	Mines Inspection Branch	43		29,890 00	
150.	Bureau of Mines	43-44		16,184 00	
151.	Mine-rescue and Training Stations	44		13,820 00	
152.	Coal-miners' Examinations	44		4,000 00	
153.	First-aid Work	44		2,760 00	
154-156.	Miscellaneous	44		102,500 00	
	Statutory	44		140,000 00	
					335,504 00
	DEPARTMENT OF THE PROVINCIAL SECRETARY:				
157.	Minister's Office	45	$	8,770 00	
158.	General Office	45		10,326 00	
159.	Provincial Board of Health	45		32,718 00	
160.	Provincial Museum	46		8,400 00	
161-163.	Mental Hospitals	46-47		423,231 00	
164.	Provincial Home, Kamloops	48		33,172 00	
165-170.	Grants to Hospitals and Charities	48		431,050 00	
171.	King's Printer	48-49		152,928 00	
172-185.	Miscellaneous	49		532,750 00	
					1,633,345 00
	Carried forward				$7,821,584 08

No. of Vote.	SERVICE.	Page.			
	Brought forward				$7,821,584 08
	CURRENT ACCOUNT—*Concluded.*				
	DEPARTMENT OF PUBLIC WORKS:				
186.	Minister's Office	50	$	9,765 00	
187.	General Office	50		41,340 00	
188.	District Engineers	50		37,700 00	
189.	Steam-boiler Inspection	51		52,866 00	
190.	"Electrical Energy Inspection Act"	51		5,980 00	
191.	"Factories Act"	51		6,949 00	
192.	Maintenance of Government House and Grounds	52		13,868 00	
193.	Maintenance of Parliament Buildings and Grounds	52		74,999 00	
194.	Roads, Streets, Bridges, and Wharves	52		1,427,040 00	
195.	Steamboats, Ferries, and Bridges	53		124,433 00	
					1,794,940 00
196-197.	DEPARTMENT OF RAILWAYS	53			41,730 00
	Chargeable to Income				$9,658,254 08
	CAPITAL ACCOUNT.				
198.	Sinking Funds	53	$	718,940 00	
199.	Nakusp & Slocan Railway Company	54		11,500 00	
200.	Pacific Great Eastern Railway Company	54		907,200 00	
201.	Wellington Collieries Railway Company	54		15,000 00	
202.	British Columbia House, London, England	54		9,750 00	
203.	Songhees Reserve	54		50,000 00	
204.	Mental Hospital, Essondale	54		10,700 00	
205.	Colony Farm, Essondale	54		4,000 00	
206.	Roads, Streets, Bridges, and Wharves	54		208,650 00	
207.	Ferries	54		17,700 00	
	Chargeable to Capital				1,953,440 00
	Total Estimated Expenditure for fiscal year 1918-19				$11,611,694 08

ESTIMATES OF EXPENDITURE

OF THE PROVINCE OF

BRITISH COLUMBIA

FOR THE

FISCAL YEAR ENDING 31ST MARCH, 1919

No. of Vote.	SERVICE.		
1.	PUBLIC DEBT.		
	INTEREST.		
	"Loan Acts, 1891, 1893, 1895, 1899, and 1902"—12 months' int. @ 3% on amount of Inscribed Stock, viz., $9,921,936	$ 297,658 08	
	"Loan Act, 1914"—12 months' interest @ 4½% on amount of Inscribed Stock, viz., $7,275,000	327,375 00	
	"Loan Act, 1915"—12 months' interest @ 4½% on Debentures of $3,130,000	140,850 00	
	"Loan Act, 1916"—12 months' interest @ 4½% on Debentures of $2,000,000	90,000 00	
	"Loan Act, 1917"—12 months' interest @ 5% on Debentures of $500,000	25,000 00	
	Dyking Debentures, 1897, and 1899—12 months' interest @ 3½% on $445,000	15,575 00	
	"Loan Acts, 1916, 1917, 1918," and "Revenue Act"—Interest on Treasury Bills and Bank Overdrafts	500,000 00	
			$1,396,458 08
	PREMIUM AND EXCHANGE.		
	On drafts for Interest remittances (approximate)		5,000 00
	DISCOUNT AND COMMISSION.		
	½ per cent. Commisision to Loan Trustees on sums annually invested (approximate)	$ 600 00	
	Annual Commission for inscribing and paying interest on Inscribed Stock	5,820 00	
	Brokerage, Dividend Warrant Stamps and Postage in London on Sinking Fund Investments, and payment of Interest (approximate)	1,000 00	
	Commission for payment of Interest on Loans of 1915, 1916, 1917, and 1918 (approximate)	800 00	
			8,220 00
	Total of Vote No. 1		$1,409,678 08

No. of Vote.	SERVICE.		
2.	LEGISLATION.		
	Members' Indemnities:		
	Forty-seven Members @ $1,600 each	$ 75,200 00	
	Mileage	7,000 00	
	Allowance to the Leader of the Opposition	1,500 00	
			$ 83,700 00
	Salaries:		
	Mr. Speaker, Sessional allowance	1,800 00	
	Deputy Speaker, Sessional allowance	500 00	
	Clerk of the House, Sessional allowance	1,200 00	
	Law Clerk, Sessional allowance	600 00	
	Sergeant-at-Arms, Sessional allowance	500 00	
	Assistant Sergeant-at-Arms, Sessional allowance	240 00	
	Secretary, Sessional allowance	240 00	
	Twelve Attendants @ $25 per week	2,400 00	
	Six Pages @ $7.50 per week	360 00	
	Two Stenographers @ $17.50 per week	280 00	
	Four Stenographers @ $15 per week	480 00	
	Unforeseen and unprovided	500 00	
			9,100 00
	Expenses:		
	Office supplies, etc.	$ 1,150 00	
	Printing, binding, etc.	4,300 00	
	Furniture and fixtures	250 00	
	Select Standing Committees	1,000 00	
	Incidentals	500 00	
			7,200 00
	Total of Vote No. 2		$ 100,000 00
3.	PREMIER'S OFFICE.		
	Salaries:		
	The Premier (without any further salary as head of any Department)	$ 7,500 00	
	Secretary	1,800 00	
	Clerk and Stenographer	900 00	
		$ 10,200 00	
	Expenses:		
	Office supplies, etc.	1,550 00	
	Travelling expenses	1,000 00	
	Total of Vote No. 3		$ 12,750 00
	DEPARTMENT OF AGRICULTURE.		
4.	MINISTER'S OFFICE.		
	Salaries:		
	The Minister	$ 6,000 00	
	Secretary	1,500 00	
	Clerk and Stenographer	720 00	
	Carried forward	$ 8,220 00	

No. of Vote.	SERVICE.		
	DEPARTMENT OF AGRICULTURE—*Continued.*		
4.	MINISTER'S OFFICE—*Concluded.*		
	Brought forward	$ 8,220 00	
	Expenses:		
	Office supplies, etc.	1,200 00	
	Travelling expenses	500 00	
	Total of Vote No. 4		$ 9,920 00
5.	GENERAL OFFICE.		
	Salaries:		
	Deputy Minister	$ 3,120 00	
	Chief Clerk	1,804 00	
	Accountant	1,500 00	
	Statistician	1,620 00	
	Three Clerks @ $1,200 each	3,600 00	
	One Clerk	1,080 00	
	Junior Clerk	540 00	
	Junior Clerk	400 00	
	Clerk and Typist	840 00	
	General Assistant	1,320 00	
	Four Stenographers @ $840 each	3,360 00	
	Two Stenographers @ $780 each	1,560 00	
	Carpenter	1,080 00	
	Secretary, Women's Institutes	480 00	
	Temporary assistance	2,000 00	
		$ 24,304 00	
	Expenses:		
	Office supplies, etc.	13,175 00	
	Travelling expenses	2,500 00	
	Total of Vote No. 5		39,979 00
6.	HORTICULTURAL BRANCH.		
	Salaries:		
	Provincial Horticulturist	$ 2,160 00	
	Two Assistant Provincial Horticulturists @ $1,640 each	3,280 00	
	One Assistant Provincial Horticulturist	1,620 00	
	Inspector of Imported Fruit and Nursery Stock	1,820 00	
	Assistant Inspector of Imported Fruit and Nursery Stock	1,620 00	
	Assistant Inspector of Imported Fruit and Nursery Stock	1,200 00	
	Plant Pathologist	2,160 00	
	Prairie Markets Commissioner	1,680 00	
	Assistant Inspector of Nursery Stock	1,200 00	
	Two District Fruit Inspectors @ $1,200 each	2,400 00	
	One District Fruit Inspector	1,140 00	
	Potato Inspector	1,200 00	
	Labour at Vancouver Fumigation Station	3,500 00	
	Special labour *re* fruit pests and disease	6,000 00	
	Carried forward	$ 30,980 00	$ 49,899 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF AGRICULTURE—*Concluded.*		
6.	HORTICULTURAL BRANCH—*Concluded.*		
	Brought forward	$ 30,980 00	$ 49,899 00
	Expenses:		
	Office supplies, etc.	3,012 00	
	Travelling expenses	5,500 00	
	Suppression of diseases	2,000 00	
	Total of Vote No. 6		41,492 00
7.	LIVE STOCK BRANCH.		
	Salaries:		
	Live Stock Commissioner	$ 2,500 00	
	Poultry Instructor	1,800 00	
	Assistant Poultry Instructor	1,500 00	
	Assistant Dairy Instructor	1,800 00	
	Soil and Crop Instructor	1,800 00	
	Veterinary Inspector	2,100 00	
	Three Assistant Veterinary Inspectors @ $1,860 each	5,580 00	
	Temporary assistance:		
	Two Assistant Veterinary Inspectors @ $1,500 each	3,000 00	
	Brands Inspector	1,200 00	
	Two Milk-testers @ $1,200 each	2,400 00	
	Temporary assistance	500 00	
		$ 24,180 00	
	Expenses:		
	Office supplies, etc.	4,113 00	
	Travelling expenses	10,500 00	
	Total of Vote No. 7		38,793 00
8.	MISCELLANEOUS GRANTS, ETC.		
	Compensation for tubercular cattle	$ 20,000 00	
	Agricultural Associations, etc.	15,000 00	
	Farmers' Institutes	10,000 00	
	Women's Institutes	6,000 00	
	In aid of British Columbia Bee-keepers' Association	250 00	
	In aid of British Columbia Dairymen's Association	1,500 00	
	In aid of British Columbia Entomological Society	250 00	
	In aid of British Columbia Fruit-growers' Association	3,000 00	
	In aid of British Columbia Goat-breeders' Association	500 00	
	In aid of British Columbia Poultry Association	1,500 00	
	In aid of British Columbia Stock-breeders' Association	1,500 00	
	In aid of British Columbia Flockmasters' Association	500 00	
	In aid of British Columbia Seed-growers' Association	1,000 00	
	Operation of Frondeg Farm	25,000 00	
	Collection of agricultural statistics	1,500 00	
	Board of Horticulture	500 00	
	Departmental exhibits	500 00	
	Grants to British Columbia students	1,000 00	
	Total of Vote No. 8		89,500 00
			$ 219,684 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF THE ATTORNEY-GENERAL.		
9.	ATTORNEY-GENERAL'S OFFICE.		
	Salaries:		
	The Attorney-General	$ 6,000 00	
	Secretary	1,800 00	
	Clerk and Stenographer	900 00	
		$ 8,700 00	
	Expenses:		
	Office supplies, etc.	1,400 00	
	Travelling expenses	1,000 00	
	Total of Vote No. 9		$ 11,100 00
10.	GENERAL OFFICE.		
	Salaries:		
	Deputy Attorney-General	$ 4,500 00	
	Departmental Solicitor	3,840 00	
	Inspector of Legal Offices	3,480 00	
	Official Guardian	1,200 00	
	Stenographer to Official Guardian	720 00	
	Chief Clerk	1,860 00	
	Clerk	1,518 00	
	Clerk	1,152 00	
	Clerk	960 00	
	Law Clerk	1,080 00	
	Stenographer	780 00	
	Temporary assistance	200 00	
		$ 21,290 00	
	Expenses:		
	Office supplies, etc.	3,970 00	
	Travelling expenses	1,500 00	
	Total of Vote No. 10		$ 26,760 00
11.	JOINT-STOCK COMPANIES AND INSURANCE BRANCH.		
	Salaries:		
	Registrar and Superintendent of Insurance	$ 3,600 00	
	Chief Clerk	1,520 00	
	Stenographer	840 00	
	Stenographer	600 00	
	Temporary assistance	100 00	
		$ 6,660 00	
	Expenses:		
	Office supplies, etc.	720 00	
	Total of Vote No. 11		$ 7,380 00
	Carried forward		$ 45,240 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Continued.*		
	Brought forward		$ 45,240 00
12.	MUNICIPAL BRANCH.		
	Salaries:		
	Inspector of Municipalities	$ 3,000 00	
	Clerk	1,500 00	
	Stenographer	720 00	
		$ 5,220 00	
	Expenses:		
	Office supplies, etc.	615 00	
	Travelling expenses	500 00	
	Total of Vote No. 12		$ 6,335 00
13.	CENSOR OF MOVING PICTURES.		
	Salaries:		
	Censor	$ 2,040 00	
	Assistant Censor	1,560 00	
	Assistant Censor	1,320 00	
	Assistant Censor	1,200 00	
	Inspector	1,620 00	
	Two Operators @ $1,200 each	2,400 00	
	Clerk	660 00	
	Stenographer	792 00	
	Temporary assistance	120 00	
		$ 11,712 00	
	Expenses:		
	Office supplies, etc.	910 00	
	Travelling expenses	1,500 00	
	Machine supplies, etc.	1,600 00	
	Total of Vote No. 13		$ 15,722 00
14.	ADMINISTRATION OF "PROHIBITION ACT."		
	Commissioner's Office.		
	Salaries:		
	Commissioner	$ 2,400 00	
	Clerk	720 00	
	Temporary assistance	100 00	
		$ 3,220 00	
	Expenses:		
	Office supplies, etc.	1,285 00	
	Travelling expenses	1,000 00	
		$ 5,505 00	
	Carried forward	$ 5,505 00	$ 67,297 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Continued.*			
14.	ADMINISTRATION OF "PROHIBITION ACT"—*Concluded.*			
	Brought forward		$ 5,505 00	$ 67,297 00
	Vancouver Vendor.			
	Salaries:			
	Vendor	$ 1,800 00		
	Assistant Vendor	1,200 00		
	Warehouseman	960 00		
		$ 3,960 00		
	Expenses:			
	Office supplies, etc.	635 00		
	Rent	1,500 00		
			6,095 00	
	Victoria Vendor.			
	Salaries:			
	Vendor	$ 1,500 00		
	Assistant Vendor	1,500 00		
		$ 3,000 00		
	Expenses:			
	Office supplies, etc.	305 00		
	Rent	1,500 00		
			4,805 00	
	Miscellaneous.			
	Special Operators (salaries and expenses)	$ 3,000 00		
	Insurance on stock	1,000 00		
	Purchase of stock	10,000 00		
			14,000 00	
	Total of Vote No. 14			30,405 00
15.	PROVINCIAL LIBRARY AND ARCHIVES.			
	Salaries:			
	Librarian and Archivist		$ 2,820 00	
	Chief Cataloguer		1,524 00	
	Assistant Cataloguer		840 00	
	Reference Assistant		1,152 00	
	Superintendent, Travelling Libraries		1,320 00	
	Junior Clerk		720 00	
	Junior Clerk		600 00	
	Stenographer		720 00	
	Archives Indexer		600 00	
	Archives Stenographer		720 00	
	Carried forward		$ 11,016 00	$ 97,702 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Continued.*		
15.	PROVINCIAL LIBRARY AND ARCHIVES—*Concluded.*		
	Brought forward	$ 11,016 00	$ 97,702 00
	Expenses:		
	Office supplies, books, subscriptions, etc.	4,984 00	
	Travelling Libraries	2,000 00	
	Total of Vote No. 15		18,000 00
	LAND REGISTRY OFFICES.		
16.	KAMLOOPS.		
	Salaries:		
	Registrar	$ 3,120 00	
	Chief Clerk	1,500 00	
	Surveyor	1,440 00	
	Surveyor	1,380 00	
	Clerk	1,536 00	
	Clerk	1,284 00	
	Two Clerks @ $1,152 each	2,304 00	
	Clerk	1,080 00	
	Stenographer	900 00	
	Three Stenographers @ $780 each	2,340 00	
	Temporary assistance	900 00	
		$ 17,784 00	
	Expenses:		
	Office supplies, etc.	1,464 00	
	Travelling expenses	25 00	
	Total of Vote No. 16	$ 19,273 00	
17.	NELSON.		
	Salaries:		
	Registrar	$ 2,400 00	
	Chief Clerk	1,500 00	
	Surveyor	1,440 00	
	Surveyor	1,380 00	
	Clerk	1,344 00	
	Two Clerks @ $1,152 each	2,304 00	
	Clerk	1,080 00	
	Stenographer	900 00	
	Janitor	900 00	
	Temporary assistance	600 00	
		$ 13,848 00	
	Expenses:		
	Office supplies, etc.	904 00	
	Travelling expenses	25 00	
	Total of Vote No. 17	14,777 00	
	Carried forward	$ 34,050 00	$ 115,702 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Continued.*			
	LAND REGISTRY OFFICES—*Continued.*			
	Brought forward		$ 34,050 00	$ 115,702 00
18.	NEW WESTMINSTER.			
	Salaries:			
	Registrar	$ 3,120 00		
	Chief Clerk	1,960 00		
	Surveyor	1,440 00		
	Clerk	1,320 00		
	Clerk	1,284 00		
	Two Clerks @ $1,224 each	2,448 00		
	Three Clerks @ $1,152 each	3,456 00		
	Four Clerks @ $1,080 each	4,320 00		
	Stenographer	840 00		
	Three Stenographers @ $780 each	2,340 00		
	Janitor	900 00		
		$ 23,428 00		
	Expenses:			
	Office supplies, etc	1,429 00		
	Travelling expenses	25 00		
	Total of Vote No. 18		24,882 00	
19.	PRINCE RUPERT.			
	Salaries:			
	Registrar	$ 2,400 00		
	Chief Clerk	1,500 00		
	Surveyor	900 00		
	Stenographer	960 00		
		$ 5,760 00		
	Expenses:			
	Office supplies, etc.	664 00		
	Travelling expenses	25 00		
	Total of Vote No. 19		6,449 00	
20.	VANCOUVER.			
	Salaries:			
	Registrar	$ 4,800 00		
	Chief Clerk	2,440 00		
	Surveyor	1,440 00		
	Surveyor	1,380 00		
	Clerk	1,764 00		
	Two Clerks @ $1,620 each	3,240 00		
	Clerk	1,548 00		
	Clerk	1,452 00		
	Four Clerks @ $1,404 each	5,616 00		
	Clerk	1,344 00		
	Carried forward	$ 25,024 00	$ 65,381 00	$ 115,702 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Continued.*			
	LAND REGISTRY OFFICES—*Concluded.*			
20.	VANCOUVER—*Concluded.*			
	Brought forward	$ 25,024 00	$ 65,381 00	$ 115,702 00
	Salaries—*Concluded.*			
	Clerk	1,284 00		
	Seven Clerks @ $1,152 each	8,064 00		
	Clerk	1,092 00		
	Two Clerks @ $1,080 each	2,160 00		
	Stenographer	960 00		
	Stenographer	840 00		
	Stenographer	780 00		
	Stenographer	720 00		
	Temporary assistance	900 00		
		$ 41,824 00		
	Expenses:			
	Office supplies, etc.	1,453 00		
	Travelling expenses	25 00		
	Total of Vote No. 20		43,302 00	
21.	VICTORIA.			
	Salaries:			
	Registrar-General	$ 3,600 00		
	Chief Clerk	2,440 00		
	Surveyor	1,500 00		
	Surveyor	1,380 00		
	Clerk	1,900 00		
	Clerk	1,752 00		
	Two Clerks @ $1,476 each	2,952 00		
	Four Clerks @ $1,440 each	5,760 00		
	Clerk	1,224 00		
	Two Clerks @ $1,152 each	2,304 00		
	Three Clerks @ $1,080 each	3,240 00		
	Stenographer	900 00		
	Stenographer	840 00		
	Stenographer	720 00		
	Office-boy	540 00		
	Temporary assistance	900 00		
		$ 31,952 00		
	Expenses:			
	Office supplies, etc.	1,458 00		
	Travelling expenses	100 00		
	Total of Vote No. 21		33,510 00	
				142,193 00
	Carried forward			$ 257,895 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Continued.*			
	Brought forward			$ 257,895 00
	SUPREME AND COUNTY COURTS.			
22.	CHILLIWACK.			
	Salaries:			
	Registrar, County Court		600 00	
	Janitor		480 00	
		$	1,080 00	
	Expenses:			
	Office supplies, etc.		220 00	
	Maintenance and repairs of bldgs., grounds, etc.		220 00	
	Fuel, water, light, etc.		150 00	
	Total of Vote No. 22			$ 1,670 00
23.	LADYSMITH.			
	Salaries:			
	Deputy Registrar	$	300 00	
	Expenses:			
	Office supplies, etc.		25 00	
	Total of Vote No. 23			325 00
24.	MERRITT.			
	Salaries:			
	Deputy Registrar	$	300 00	
	Janitor		900 00	
		$	1,200 00	
	Expenses:			
	Office supplies, etc.		50 00	
	Maintenance and repairs of buildings, grounds, etc.		100 00	
	Fuel, water, light, etc.		275 00	
	Total of Vote No. 24			1,625 00
25.	NELSON.			
	Salaries:			
	Registrar, Supreme and County Courts	$	2,116 00	
	Stenographer		660 00	
		$	2,776 00	
	Expenses:			
	Office supplies, etc.		160 00	
	Total of Vote No. 25			2,936 00
	Carried forward			$ 6,556 00 $ 257,895 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Continued.*			
	SUPREME AND COUNTY COURTS—*Continued.*			
	Brought forward		$ 6,556 00	$ 257,895 00
26.	NEW WESTMINSTER.			
	Salaries:			
	Registrar, Supreme and County Courts	$ 2,248 00		
	Clerk	1,416 00		
	Junior Clerk	960 00		
	Stenographer	780 00		
	Janitor and Messenger	960 00		
		$ 6,364 00		
	Expenses:			
	Office supplies, etc.	310 00		
	Total of Vote No. 26		6,674 00	
27.	PRINCE RUPERT.			
	Salaries:			
	Registrar, Supreme and County Courts	$ 2,200 00		
	Expenses:			
	Office supplies, etc.	125 00		
	Total of Vote No. 27		2,325 00	
28.	VANCOUVER.			
	Salaries:			
	Registrar, Supreme and County Courts	$ 3,720 00		
	Reputy Registrar	2,140 00		
	Clerk	1,320 00		
	Clerk	1,224 00		
	Three Clerks @ $1,152 each	3,456 00		
	Seven Clerks @ $1,080 each	7,560 00		
	Clerk	1,104 00		
	Junior Clerk	600 00		
	Two Stenographers @ $780 each	1,560 00		
	Stenographer	720 00		
		$ 23,404 00		
	Expenses:			
	Office supplies, etc.	905 00		
	Total of Vote No. 28		24,309 00	
29.	VICTORIA.			
	Salaries:			
	Registrar, County Court, and Acting Registrar, Supreme Court	$ 2,180 00		
	Clerk for Judges	1,404 00		
	Clerk and Deputy Registrar	1,320 00		
	Clerk	1,152 00		
	Five Clerks @ $1,080 each	5,400 00		
	Carried forward	$ 11,456 00	$ 39,864 00	$ 257,895 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Continued.*			
	SUPREME AND COUNTY COURTS—*Concluded.*			
29.	VICTORIA—*Concluded.*			
	Brought forward	$ 11,456 00	$ 39,864 00	$ 257,895 00
	Salaries—*Concluded.*			
	Usher and Janitor	1,200 00		
	Assistant Usher and Janitor	960 00		
	Two Assistant Ushers and Janitors @ $900 each	1,800 00		
	Fireman	900 00		
	Elevator Attendant	840 00		
	Nightwatchman	840 00		
		$ 17,996 00		
	Expenses:			
	Office supplies, etc.	900 00		
	Maintenance and repairs of building, etc.	2,770 00		
	Fuel, water, light, etc.	1,500 00		
	Total of Vote No. 29		23,166 00	
30.	OFFICIAL STENOGRAPHERS.			
	Salaries:			
	Two Stenographers @ $1,344 each	$ 2,688 00		
	One Stenographer	300 00		
	Total of Vote No. 30		2,988 00	
				66,018 00
31.	PROVINCIAL POLICE.			
	Headquarters.			
	Salaries:			
	Superintendent	$ 3,360 00		
	Chief Clerk and Cashier	1,920 00		
	Two Clerks @ $1,260 each	2,520 00		
	Two Clerks @ $840 each	1,680 00		
	Chief Detective	1,620 00		
	Special Constables	2,500 00		
		$ 13,600 00		
	Expenses:			
	Office supplies, etc.	1,700 00		
	Travelling expenses and transportation	3,000 00		
	Furniture and fixtures	500 00		
	Uniforms, clothing, and equipment	1,500 00		
	Rents	300 00		
	Incidentals and contingencies	2,500 00		
			23,100 00	
	Police Divisions.			
	Salaries:			
	Police and Special Constables	$ 175,000 00		
	Carried forward	$ 175,000 00	$ 23,100 00	$ 323,913 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Continued.*			
31.	PROVINCIAL POLICE—*Concluded.*			
	Police Divisions—Concluded.			
	Brought forward	$ 175,000 00	$ 23,100 00	$ 323,913 00
	Expenses:			
	Office supplies, etc.	11,170 00		
	Travelling expenses and transportation	43,150 00		
	Furniture and fixtures	3,550 00		
	Uniforms, clothing, and equipment	10,250 00		
	Rents	5,100 00		
	Maintenance and repairs of bldgs., grounds, etc.	8,690 00		
	Fuel, water, light, etc.	11,000 00		
	Provisions	8,000 00		
	Incidentals and contingencies	7,500 00		
			283,410 00	
	Total of Vote No. 31			306,510 00
	COUNTY GAOLS.			
32.	KAMLOOPS GAOL.			
	Salaries:			
	Warden	$ 1,440 00		
	Two Gaolers @ $1,152 each	2,304 00		
	Gaoler	960 00		
	Two Guards @ $1,020 each	2,040 00		
	Two Guards @ $960 each	1,920 00		
	Medical Officer	450 00		
		$ 9,114 00		
	Expenses:			
	Office supplies, etc.	200 00		
	Travelling expenses and transportation	250 00		
	Furniture and fixtures	200 00		
	Uniforms, clothing, and equipment	750 00		
	Maintenance and repairs of bldgs., grounds, etc.	800 00		
	Fuel, water, light, etc.	1,742 00		
	Provisions, etc.	4,900 00		
	Incidentals and contingencies	1,410 00		
	Total of Vote No. 32		$ 19,366 00	
33	NELSON GAOL.			
	Salaries:			
	Warden	$ 1,500 00		
	Gaoler	1,200 00		
	Two Gaolers @ $960 each	1,920 00		
	Guard	1,152 00		
	Guard	1,140 00		
	Guard	1,020 00		
	Guard	960 00		
	Medical Officer	450 00		
	Carried forward	$ 9,342 00	$ 19,366 00	$ 630,423 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Continued.*			
	COUNTY GAOLS—*Concluded.*			
33.	NELSON GAOL—*Concluded.*			
	Brought forward	$ 9,342 00	$ 19,366 00	$ 630,423 00
	Expenses:			
	Office supplies, etc.	200 00		
	Travelling expenses and transportation	250 00		
	Furniture and fixtures	200 00		
	Uniforms, clothing, and equipment	750 00		
	Maintenance and repairs of bldgs., grounds, etc.	750 00		
	Fuel, water, light, etc.	545 00		
	Provisions, etc.	4,750 00		
	Incidentals and contingencies	1,410 00		
	Total of Vote No. 33		18,197 00	
34.	OAKALLA PRISON FARM.			
	Salaries:			
	Warden	$ 1,920 00		
	Instructor	1,200 00		
	Gaoler	1,200 00		
	Two Gaolers @ $1,020 each	2,040 00		
	Twelve Guards @ $1,020 each	12,240 00		
	Guard	960 00		
	Two Guards @ $900 each	1,800 00		
	Engineer	1,200 00		
	Matron	840 00		
	Assistant Matron	720 00		
	Medical Officer	720 00		
		$ 24,840 00		
	Expenses:			
	Office supplies, etc.	410 00		
	Travelling expenses and transportation	1,750 00		
	Furniture and fixtures	500 00		
	Uniforms, clothing, and equipment	2,500 00		
	Maintenance and repairs of bldgs., grounds, etc.	6,050 00		
	Fuel, water, light, etc.	4,350 00		
	Provisions, etc.	12,850 00		
	Incidentals and contingencies	4,300 00		
	Total of Vote No. 34		57,550 00	
				95,113 00
	INDUSTRIAL SCHOOLS.			
35	BOYS' SCHOOL.			
	Salaries:			
	Superintendent	$ 1,500 00		
	Teacher	1,116 00		
	Gardener and Farm Instructor	900 00		
	Tailor	936 00		
	Drill and Physical Instructor	936 00		
	Carried forward	$ 5,388 00		$ 725,536 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Continued.*			
	INDUSTRIAL SCHOOLS—*Concluded.*			
35.	BOYS' SCHOOL—*Concluded.*			
	Brought forward	$ 5,388 00		$ 725,536 00
	Salaries—*Concluded.*			
	Shoemaker	912 00		
	Carpenter and Band Instructor	876 00		
	Fourth Assistant	684 00		
	Fifth Assistant	684 00		
	Cook and Baker	876 00		
	Matron and Housekeeper	480 00		
	Night Officer and Watchman	840 00		
		$ 10,740 00		
	Expenses :			
	Office supplies, etc.	600 00		
	Travelling expenses and transportation	200 00		
	Furniture and fixtures	1,745 00		
	Clothing, boots, etc.	4,100 00		
	Maintenance and repairs of bldgs., grounds, etc.	2,735 00		
	Fuel, water, light, etc.	1,000 00		
	Provisions, etc.	8,300 00		
	Incidentals and contingencies	1,350 00		
	Total of Vote No. 35		$ 30,770 00	
36.	GIRLS' SCHOOL.			
	Salaries:			
	Superintendent	$ 1,320 00		
	Nurse and Matron	600 00		
	First Assistant	600 00		
	Teacher	480 00		
	Needlewoman	480 00		
	Cook	480 00		
	Engineer and Janitor	1,200 00		
	Gardener	960 00		
	Commercial Teacher	300 00		
	Domestic Science Teacher	450 00		
		$ 6,870 00		
	Expenses:			
	Office supplies, etc.	400 00		
	Travelling expenses and transportation	75 00		
	Furniture and fixtures	450 00		
	Clothing, boots, etc.	1,975 00		
	Maintenance and repairs of bldgs., grounds, etc.	4,635 00		
	Fuel, water, light, etc.	1,645 00		
	Provisions, etc.	7,300 00		
	Incidentals and contingencies	70 00		
	Total of Vote No. 36		23,420 00	
				54,190 00
	Carried forward			$ 779,726 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF THE ATTORNEY-GENERAL—*Concluded.*			
	Brought forward			$ 779,726 00
	MISCELLANEOUS.			
37.	Summoning and paying witnesses		$ 15,000 00	
38.	Grand and Petit Jurors (including drawing panels, etc.)		12,500 00	
39.	Prosecutions and Interpreters		15,000 00	
40.	Expenses of inquest		6,000 00	
41.	Rewards		2,000 00	
42.	Allowance to Sheriffs (fixed allowance)		9,750 00	
43.	Constitutional litigation and general law costs		7,500 00	
44.	Motor-traffic regulation (plates, badges, etc.)		7,500 00	
45.	Destruction of wolves, cougars, coyotes, owls, etc., and game protection, including salaries, travelling expenses, and incidentals of office		35,000 00	
46.	"Infants Act"		10,000 00	
47.	Special surveys		2,500 00	
48.	Grant to Canadian Bar Association		500 00	
49.	Stipendiary Magistrates:			
	Nelson	$ 500 00		
	Provisional	2,800 00		
			3,300 00	
50.	Criminal Identification Bureau		1,000 00	
51.	Incidentals and contingencies		2,500 00	
				130,050 00
				$ 909,776 00
	DEPARTMENT OF EDUCATION.			
52.	GENERAL OFFICE.			
	Salaries:			
	Superintendent of Education		$ 4,000 00	
	Chief Inspector and Assistant to Superintendent		3,000 00	
	Chief Clerk		2,332 00	
	Clerk		1,152 00	
	Junior Clerk		720 00	
	Stenographer		960 00	
	Two Stenographers @ $600 each		1,200 00	
	Temporary assistance		500 00	
			$ 13,864 00	
	Expenses:			
	Office supplies, etc.		12,870 00	
	Travelling expenses		800 00	
	Total of Vote No. 52			$ 27,534 00
	Carried forward			$ 27,534 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF EDUCATION—*Continued.*		
	Brought forward		$ 27,534 00
53.	FREE TEXT-BOOK BRANCH.		
	Salaries:		
	Officer in Charge	$ 2,760 00	
	Clerk	900 00	
	Stenographer	840 00	
	Stenographer	600 00	
	Temporary assistance	700 00	
		$ 5,800 00	
	Expenses:		
	Office supplies, etc.	2,656 00	
	Travelling expenses	100 00	
	Text-books, maps, globes, etc.	60,000 00	
	Total of Vote No. 53		68,556 00
54.	AGRICULTURAL EDUCATION.		
	Salaries:		
	Director of Agricultural Education	$ 3,240 00	
	District Supervisor	2,000 00	
	Two District Supervisors @ $1,900 each	3,800 00	
	Three District Supervisors @ $1,800 each	5,400 00	
	Clerk and Stenographer	780 00	
		$ 15,220 00	
	Expenses:		
	Office supplies, etc.	830 00	
	Travelling expenses	1,200 00	
	Grants in aid of agricultural education	12,000 00	
		$ 29,250 00	
	Less Special grant from Dominion Government	20,000 00	
	Total of Vote No. 54		9,250 00
55.	INDUSTRIAL EDUCATION.		
	Salaries:		
	Organizer of Industrial and Technical Education	$ 2,940 00	
	Expenses:		
	Office supplies, etc.	395 00	
	Travelling expenses	1,000 00	
	Night-schools	7,000 00	
	Grants in aid of industrial education	7,000 00	
	Total of Vote No. 55		18,335 00
56.	INSPECTION OF SCHOOLS.		
	Salaries:		
	Inspector of High Schools	$ 2,520 00	
	Inspector of Schools	2,600 00	
	Carried forward	$ 5,120 00	$ 123,675 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF EDUCATION—*Continued.*		
56.	INSPECTION OF SCHOOLS—*Concluded.*		
	Brought forward	$ 5,120 00	$ 123,675 00
	Salaries—*Concluded.*		
	Inspector of Schools	2,540 00	
	Inspector of Schools	2,440 00	
	Inspector of Schools	2,400 00	
	Four Inspectors of Schools @ $2,280 each	9,120 00	
	Two Inspectors of Schools @ $2,160 each	4,320 00	
	Inspector of Schools	2,100 00	
		$ 28,040 00	
	Expenses:		
	Office supplies, etc.	3,300 00	
	Travelling expenses	13,000 00	
	Office-rents	400 00	
	Total of Vote No. 56		44,740 00
57.	NORMAL SCHOOL, VANCOUVER.		
	Salaries:		
	Principal	$ 3,000 00	
	Assistant Master	2,800 00	
	Assistant Master	2,400 00	
	Drawing Master	2,280 00	
	Assistant Mistress	1,740 00	
	Assistant Mistress	1,680 00	
	Music Mistress	1,560 00	
	Librarian and Stenographer	720 00	
	Engineer and Janitor	1,080 00	
	Assistant Janitor	960 00	
	Gardener	960 00	
	Assistant Gardener	780 00	
		$ 19,960 00	
	Expenses:		
	Office supplies, etc.	1,535 00	
	Travelling expenses	50 00	
	Fuel, water, light	1,605 00	
	Maintenance and repairs of buildings, grounds, etc.	1,160 00	
	Students' mileage	3,500 00	
	Allowance to teachers assisting Normal students	1,000 00	
	Total of Vote No. 57		28,810 00
58.	NORMAL SCHOOL, VICTORIA.		
	Salaries:		
	Principal	$ 3,000 00	
	Assistant Master	2,520 00	
	Drawing Master and Technical Instructor	2,480 00	
	Domestic Science Mistress	1,560 00	
	Carried forward	$ 9,560 00	$ 197,225 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF EDUCATION—*Concluded.*		
58.	NORMAL SCHOOL, VICTORIA—*Concluded.*		
	Brought forward	$ 9,560 00	$ 197,225 00
	Salaries—*Concluded.*		
	Music Mistress	1,440 00	
	Principal, Model School	1,620 00	
	Teacher, Model School	1,200 00	
	Engineer	1,500 00	
	Assistant Engineer	1,080 00	
	Janitor	960 00	
		$ 17,360 00	
	Expenses:		
	Office supplies, etc.	2,375 00	
	Travelling expenses	50 00	
	Fuel, water, light	1,980 00	
	Maintenance and repairs of buildings, grounds, etc.	2,050 00	
	Students' mileage	3,500 00	
	Allowance to teachers assisting Normal students	750 00	
	Total of Vote No. 58		28,065 00
	MISCELLANEOUS.		
59.	Education of deaf, dumb, and blind		11,500 00
60.	*Per capita* grant to cities		510,000 00
61.	*Per capita* grant to municipalities		335,000 00
62.	*Per capita* grant to rural school districts		125,000 00
63.	Salaries of teachers in assisted schools (as per detailed statement hereafter appearing)		345,000 00
64.	Salaries of teachers in the E. & N. Railway Belt (as per detailed statement hereafter appearing)		80,000 00
65.	Grants to libraries		500 00
66.	Grant in aid of manual training equipment		1,500 00
67.	Erection of new buildings and maintenance and repairs of school buildings		125,000 00
68.	Examination of teachers		11,500 00
69.	Examination *re* High School Entrance		2,000 00
70.	Conveying children to central schools		2,000 00
71.	Contingencies		3,000 00
			$1,777,290 00
	DEPARTMENT OF FINANCE.		
72.	MINISTER'S OFFICE.		
	Salaries:		
	The Minister of Finance	$ 6,000 00	
	Secretary	1800 00	
	Clerk and Stenographer	780 00	
		$ 8,580 00	
	Expenses:		
	Office supplies, etc.	700 00	
	Travelling expenses	1,500 00	
	Total of Vote No. 72		$ 10,780 00
	Carried forward		$ 10,780 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF FINANCE—*Continued.*		
	Brought forward		$ 10,780 00
73.	GENERAL OFFICE.		
	Salaries:		
	Deputy Minister	$ 4,200 00	
	Accountant	2,400 00	
	Chief Clerk	2,100 00	
	Cashier	1,800 00	
	Clerk	1,764 00	
	Clerk	1,252 00	
	Clerk	1,180 00	
	Stenographer	840 00	
	Stenographer	780 00	
		$ 16,316 00	
	Expenses:		
	Office supplies, etc.	6,595 00	
	Discount and exchange, legal costs, etc.	2,140 00	
	Total of Vote No. 73		25,051 00
74.	INSPECTOR OF TRUST COMPANIES, PROBATE AND SUCCESSION DUTIES.		
	Salaries:		
	Inspector	$ 2,640 00	
	Stenographer	720 00	
	Temporary assistance, including Valuators of Estates	6,500 00	
		$ 9,860 00	
	Expenses:		
	Office supplies, etc.	810 00	
	Travelling expenses	250 00	
	Total of Vote No. 74		10,920 00
75.	CONTROLLING AND AUDIT BRANCH.		
	Salaries:		
	Comptroller-General	$ 5,000 00	
	Assistant Comptroller-General	2,500 00	
	Secretary	840 00	
	Auditor of Revenue	2,220 00	
	Two Travelling Auditors @ $1,620 each	3,240 00	
	Stenographer	780 00	
	Auditor of Disbursements	2,220 00	
	Chief Clerk	1,500 00	
	Two Clerks @ $1,620 each	3,240 00	
	Clerk	1,380 00	
	Three Clerks @ $1,320 each	3,960 00	
	Clerk	1,200 00	
	Clerk	1,100 00	
	Junior Clerk	480 00	
	Carried forward	$ 29,660 00	$ 46,751 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF FINANCE—*Continued.*		
75.	CONTROLLING AND AUDIT BRANCH—*Concluded.*		
	Brought forward	$ 29,660 00	$ 46,751 00
	Salaries—*Concluded.*		
	Stenographer	840 00	
	Stenographer	780 00	
	Purchasing Agent	3,000 00	
	Clerk	1,500 00	
	Stenographer	720 00	
		$ 36,500 00	
	Expenses:		
	Office supplies, etc.	2,470 00	
	Travelling expenses	4,000 00	
	Total of Vote No. 75		42,970 00
76.	SURVEYOR OF TAXES.		
	Salaries:		
	Surveyor of Taxes	2,700 00	
	Assistant Surveyor of Taxes	2,400 00	
	Two Clerks @ $1,500 each	3,000 00	
	Stenographer	840 00	
	Stenographer	720 00	
		$ 9,660 00	
	Expenses:		
	Office supplies, etc.	9,970 00	
	Travelling expenses	1,000 00	
	Commissions on collection of revenue	16,000 00	
	Special Auditors, salaries and expenses	10,000 00	
	Reassessment of Province	30,000 00	
	Courts of Appeal	3,000 00	
	Total of Vote No. 76		79,630 00
77.	BUREAU OF INFORMATION.		
	Salaries:		
	Clerk in Charge	$ 1,200 00	
	Temporary assistance	300 00	
		$ 1,500 00	
	Expenses:		
	Office supplies, etc.	500 00	
	Pamphlets, editing and sundry expenses	5,500 00	
	Total of Vote No. 77		7,500 00
78.	AGENT-GENERAL'S OFFICE, LONDON, ENGLAND.		
	Salaries:		
	Acting Agent-General	$ 10,000 00	
	Secretary	2,899 80	
	Carried forward	$ 12,899 80	$ 176,851 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF FINANCE—*Continued.*			
78.	AGENT-GENERAL'S OFFICE, LONDON, ENGLAND—*Concluded.*			
	Brought forward		$ 12,899 80	$ 176,851 00
	Salaries—*Concluded.*			
	Clerk		1,008 80	
	Junior Clerk		378 30	
	Office-boy		220 64	
	Office-boy		157 61	
	Stenographer		756 60	
	Stenographer		409 81	
	Assistant Typist		283 71	
	Temporary assistance		604 73	
			$ 16,720 00	
	Expenses:			
	Office supplies, etc.	$ 4,300 00		
	Travelling expenses	150 00		
	Advertising	3,500 00		
			7,950 00	
	British Columbia House, London:			
	Interest on mortgage	$ 12,075 00		
	Ground-rent	12,125 00		
	Rates and taxes	12,125 00		
	Income-tax	11,500 00		
	Maintenance and repairs to building	1,000 00		
	Insurance	400 00		
	Fuel and light	2,700 00		
	Cleaning and Janitors' supplies	4,500 00		
			56,425 00	
	Total of Vote No. 78			81,095 00
	GOVERNMENT AGENTS AND ASSESSORS, ETC.			
79.	ALBERNI AGENCY.			
	Salaries:			
	Agent and Assessor	$ 2,120 00		
	Clerk and Registrar, County Court	1,404 00		
	Clerk	1,320 00		
	Stenographer	720 00		
	Janitor	480 00		
		$ 6,044 00		
	Expenses	910 00		
	Total of Vote No. 79		$ 6,954 00	
80.	ANYOX AGENCY.			
	Salaries:			
	Agent	$ 1,800 00		
	Expenses	1,220 00		
	Total of Vote No. 80		3,020 00	
	Carried forward		$ 9,974 00	$ 257,946 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF FINANCE—*Continued.*			
	GOVERNMENT AGENTS AND ASSESSORS, ETC.—*Continued.*			
	Brought forward		$ 9,974 00	$ 257,946 00
81.	ASHCROFT AGENCY.			
	Salaries:			
	Agent and Assessor	$ 2,084 00		
	Clerk	1,200 00		
	Temporary assistance	300 00		
		$ 3,584 00		
	Expenses	972 00		
	Total of Vote No. 81		4,556 00	
82.	ATLIN AGENCY.			
	Salaries:			
	Agent and Gold Commissioner, etc.	$ 2,400 00		
	Clerk	1,660 00		
	Stenographer	1,032 00		
	Janitor and Nightwatchman	730 00		
	Temporary assistance	300 00		
		$ 6,122 00		
	Expenses	3,370 00		
	Total of Vote No. 82		9,492 00	
83.	BARKERVILLE SUB-AGENCY.			
	Salaries:			
	Gold Commissioner and Mining Recorder	$ 1,720 00		
	Stenographer	720 00		
		$ 2,440 00		
	Expenses	490 00		
	Total of Vote No. 83		2,930 00	
84.	CLINTON AGENCY.			
	Salaries:			
	Agent	$ 1,980 00		
	Clerk	1,200 00		
	Stenographer	720 00		
	Temporary assistance	300 00		
		$ 4,200 00		
	Expenses	1,255 00		
	Total of Vote No. 84		5,455 00	
	Carried forward		$ 32,407 00	$ 257,946 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF FINANCE—*Continued.*			
	GOVERNMENT AGENTS AND ASSESSORS, ETC.—*Continued.*			
	Brought forward		$ 32,407 00	$ 257,946 00
85.	CRANBROOK AGENCY.			
	Salaries:			
	Agent, Assessor, etc.	$ 2,100 00		
	Clerk and Registrar	1,500 00		
	Chief Clerk	1,320 00		
	Two Clerks @ $1,200 each	2,400 00		
	Clerk	1,092 00		
	Stenographer	720 00		
	Janitor	900 00		
	Temporary assistance	600 00		
		$ 10,632 00		
	Expenses	2,166 00		
	Total of Vote No. 85		12,798 00	
86.	CUMBERLAND AGENCY.			
	Salaries:			
	Agent and Assessor	$ 2,100 00		
	Clerk	1,320 00		
	Clerk	900 00		
		$ 4,320 00		
	Expenses	790 00		
	Total of Vote No. 86		5,110 00	
87.	DUNCAN AGENCY.			
	Salaries:			
	Agent and Assessor	$ 1,864 00		
	Clerk	1,200 00		
	Clerk	720 00		
		$ 3,784 00		
	Expenses	795 00		
	Total of Vote No. 87		4,579 00	
88.	FAIRVIEW AGENCY.			
	Salaries:			
	Agent	$ 2,060 00		
	Assessor and Mining Recorder	1,320 00		
	Clerk	1,416 00		
		$ 4,796 00		
	Expenses	1,308 00		
	Total of Vote No. 88		6,104 00	
	Carried forward		$ 60,998 00	$ 257,946 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF FINANCE—*Continued.*		
	GOVERNMENT AGENTS AND ASSESSORS, ETC.—*Continued.*		
	Brought forward	$ 60,998 00	$ 257,946 00
89.	FERNIE AGENCY.		
	Salaries:		
	Agent	$ 2,000 00	
	Two Clerks @ $1,200 each	2,400 00	
	Stenographer	660 00	
	Janitor	900 00	
		$ 5,960 00	
	Expenses	2,350 00	
	Total of Vote No. 89		8,310 00
90.	FORT FRASER AGENCY.		
	Salaries:		
	Agent and Mining Recorder	$ 1,584 00	
	Clerk	1,200 00	
		$ 2,784 00	
	Expenses	605 00	
	Total of Vote No. 90		3,389 00
91.	FORT GEORGE AGENCY.		
	Salaries:		
	Agent	$ 2,000 00	
	Clerk and Mining Recorder	1,620 00	
	Two Clerks @ $1,200 each	2,400 00	
		$ 6,020 00	
	Expenses	2,560 00	
	Total of Vote No. 91		8,580 00
92.	GOLDEN AGENCY.		
	Salaries:		
	Agent	$ 1,920 00	
	Assessor	1,620 00	
	Clerk	1,200 00	
	Janitor	840 00	
		$ 5,580 00	
	Expenses	1,842 00	
	Total of Vote No. 92		7,422 00
	Carried forward	$ 88,699 00	$ 257,946 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF FINANCE—*Continued.*		
	GOVERNMENT AGENTS AND ASSESSORS, ETC.—*Continued.*		
	Brought forward	$ 88,699 00	$ 257,946 00
93.	GRAND FORKS AGENCY.		
	Salaries:		
	Agent	$ 1,804 00	
	Clerk	1,200 00	
	Janitor	900 00	
		$ 3,904 00	
	Expenses	1,215 00	
	Total of Vote No. 93	5,119 00	
94.	GREENWOOD AGENCY.		
	Salaries:		
	Agent	$ 1,860 00	
	Clerk and Janitor	1,380 00	
		$ 3,240 00	
	Expenses	1,435 00	
	Total of Vote No. 94	4,675 00	
95.	HAZELTON AGENCY.		
	Salaries:		
	Agent	$ 2,020 00	
	Assessor and Collector	1,800 00	
	Mining Recorder	1,500 00	
	Two Clerks @ $1,200 each	2,400 00	
	Stenographer	960 00	
	Temporary assistance	50 00	
		$ 8,730 00	
	Expenses	2,025 00	
	Total of Vote No. 95	10,755 00	
96.	KAMLOOPS AGENCY.		
	Salaries:		
	Agent	$ 2,040 00	
	Assessor and Mining Recorder	1,620 00	
	Clerk and Deputy Registrar	1,320 00	
	Clerk	1,200 00	
	Clerk	1,080 00	
	Stenographer	660 00	
	Janitor	960 00	
	Temporary assistance	300 00	
		$ 9,180 00	
	Expenses	2,705 00	
	Total of Vote No. 96	11,885 00	
	Carried forward	$ 121,133 00	$ 257,946 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF FINANCE—*Continued.*		
	GOVERNMENT AGENTS AND ASSESSORS, ETC.—*Continued.*		
	Brought forward		$ 121,133 00 $ 257,946 00
97.	KASLO AGENCY.		
	Salaries:		
	Agent	$ 2,020 00	
	Assessor and Mining Recorder	1,620 00	
	Deputy Mining Recorder	1,200 00	
	Clerk	1,200 00	
	Clerk	900 00	
	Stenographer	960 00	
	Janitor	900 00	
		$ 8,800 00	
	Expenses	2,430 00	
	Total of Vote No. 97		11,230 00
98.	LILLOOET SUB-AGENCY.		
	Salaries:		
	Assessor and Mining Recorder	$ 1,800 00	
	Clerk	1,200 00	
		$ 3,000 00	
	Expenses	1,036 00	
	Total of Vote No. 98		4,036 00
99.	NANAIMO AGENCY.		
	Salaries:		
	Agent	$ 2,252 00	
	Assessor	1,900 00	
	Clerk	900 00	
	Stenographer	780 00	
	Janitor and Messenger	900 00	
		$ 6,732 00	
	Expenses	2,055 00	
	Total of Vote No. 99		8,787 00
100.	NELSON AGENCY.		
	Salaries:		
	Agent, Assessor, and Mining Recorder	$ 1,900 00	
	Three Clerks @ $1,200 each	3,600 00	
	Clerk and Stenographer	720 00	
	Stenographer	660 00	
	Janitor	900 00	
		$ 7,780 00	
	Expenses	2,840 00	
	Total of Vote No. 100		10,620 00
	Brought forward		$ 155,806 00 $ 257,946 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF FINANCE—*Continued.*		
	GOVERNMENT AGENTS AND ASSESSORS, ETC.—*Continued.*		
	Brought forward	$ 155,806 00	$ 257,946 00
101.	NEW WESTMINSTER AGENCY.		
	Salaries:		
	Agent	$ 2,300 00	
	Chief Clerk and Mining Recorder	1,620 00	
	Clerk	1,080 00	
	Stenographer	720 00	
	Assessor	2,084 00	
	Assistant Assessor	1,848 00	
	Special Tax-collector	1,500 00	
	Clerk	1,200 00	
	Janitor and Messenger	1,020 00	
	Janitor	960 00	
	Night Janitor	780 00	
		$ 15,112 00	
	Expenses	5,710 00	
	Total of Vote No. 101	20,822 00	
102.	NEW DENVER SUB-AGENCY.		
	Salaries:		
	Mining Recorder	$ 1,536 00	
	Expenses	664 00	
	Total of Vote No. 102	2,200 00	
103.	NICOLA AGENCY.		
	Salaries:		
	Agent and Assessor	$ 1,800 00	
	Clerk	1,152 00	
	Janitor	300 00	
		$ 3,252 00	
	Expenses	675 00	
	Total of Vote No. 103	3,927 00	
104.	150-MILE HOUSE.		
	Salaries:		
	Agent, Assessor, and Mining Recorder	$ 1,500 00	
	Stenographer	720 00	
		$ 2,220 00	
	Expenses	1,213 00	
	Total of Vote No. 104	3,433 00	
	Carried forward	$ 186,188 00	$ 257,946 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF FINANCE—*Continued.*		
	GOVERNMENT AGENTS AND ASSESSORS, ETC.—*Continued.*		
	Brought forward	$ 186,188 00	$ 257,946 00
105.	PRINCE RUPERT AGENCY.		
	Salaries:		
	Agent	$ 2,060 00	
	Assessor	1,960 00	
	Mining Recorder	1,848 00	
	Clerk	1,320 00	
	Clerk	1,212 00	
	Three Clerks @ $1,200 each	3,600 00	
	Special Tax-collector	1,500 00	
	Engineer and Janitor	960 00	
	Temporary assistance	1,000 00	
		$ 15,460 00	
	Expenses	5,720 00	
	Total of Vote No. 105		21,180 00
106.	PRINCETON AGENCY.		
	Salaries:		
	Agent and Assessor	$ 1,848 00	
	Clerk	1,080 00	
		$ 2,928 00	
	Expenses	1,045 00	
	Total of Vote No. 106		3,973 00
107.	QUESNEL AGENCY.		
	Salaries:		
	Agent	$ 1,980 00	
	Clerk	1,320 00	
	Assessor	2,180 00	
	Four Clerks @ $1,200 each	4,800 00	
	Four Junior Clerks @ $780 each	3,120 00	
	Janitor	200 00	
	Temporary assistance	360 00	
		$ 13,960 00	
	Expenses	3,160 00	
	Total of Vote No. 107		17,120 00
108.	QUEEN CHARLOTTE ISLANDS SUB-AGENCY.		
	Salaries:		
	Mining Recorder	$ 600 00	
	Expenses	450 00	
	Total of Vote No. 108		1,050 00
	Carried forward	$ 229,511 00	$ 257,946 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF FINANCE—*Continued.*			
	GOVERNMENT AGENTS AND ASSESSORS, ETC.—*Continued.*			
	Brought forward		$ 229,511 00	$ 257,946 00
109.	REVELSTOKE AGENCY.			
	Salaries:			
	Agent	$ 2,000 00		
	Assessor	1,752 00		
	Mining Recorder	1,200 00		
	Clerk	1,080 00		
	Stenographer	720 00		
	Janitor	960 00		
		$ 7,712 00		
	Expenses	3,610 00		
	Total of Vote No. 109		11,322 00	
110.	ROSSLAND AGENCY.			
	Salaries:			
	Agent and Assessor	$ 2,100 00		
	Clerk and Mining Recorder	1,320 00		
	Clerk	1,200 00		
	Stenographer	720 00		
	Janitor	900 00		
		$ 6,240 00		
	Expenses	2,050 00		
	Total of Vote No. 110		8,290 00	
111.	TELEGRAPH CREEK AGENCY.			
	Salaries:			
	Agent, Gold Commissioner, etc.	$ 1,500 00		
	Expenses	680 00		
	Total of Vote No. 111		2,180 00	
112.	TROUT LAKE SUB-AGENCY.			
	Salaries:			
	Mining Recorder	$ 1,080 00		
	Expenses	265 00		
	Total of Vote No. 112		1,345 00	
113.	VANCOUVER AGENCY.			
	Salaries:			
	Agent	$ 2,400 00		
	Clerk and Mining Recorder	1,740 00		
	Three Clerks @ $1,200 each	3,600 00		
	Two Stenographers @ $720 each	1,440 00		
	Stenographer	600 00		
	Carried forward	$ 9,780 00	$ 252,648 00	$ 257,946 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF FINANCE—*Continued.*			
	GOVERNMENT AGENTS AND ASSESSORS, ETC.—*Continued.*			
113.	VANCOUVER AGENCY—*Concluded.*			
	Brought forward	$ 9,780 00	$ 252,648 00	$ 257,946 00
	Salaries—*Concluded.*			
	Assessor	2,280 00		
	Deputy Assessor	1,848 00		
	Clerk	1,704 00		
	Clerk	1,404 00		
	Clerk	1,284 00		
	Five Clerks @ 1,200 each	6,000 00		
	Clerk	900 00		
	Five Special Tax-collectors @ $1,500 each	7,500 00		
	Stenographer	720 00		
	Court-house Attendants:			
	Engineer	1,800 00		
	Fireman	1,320 00		
	Elevator Attendant	840 00		
	Chief Janitor	1,320 00		
	Janitor and Gardener	1,000 00		
	Thirteen Janitors @ $960 each	12,480 00		
	Carpenter	1,200 00		
	Nightwatchman	960 00		
	Usher	900 00		
		$ 55,240 00		
	Expenses:			
	Office supplies, etc.	2,530 00		
	Travelling expenses	850 00		
	Maintenance and repairs of buildings	1,000 00		
	Fuel, water, light, etc.	10,700 00		
	Total of Vote No. 113		70,320 00	
114.	VERNON AGENCY.			
	Salaries:			
	Agent	$ 2,060 00		
	Assessor and Mining Recorder	1,952 00		
	Clerk	1,272 00		
	Clerk	840 00		
	Clerk	780 00		
	Janitor	960 00		
		$ 7,864 00		
	Expenses (including $3,755, repairs to building)	6,215 00		
	Total of Vote No. 114		14,079 00	
	Carried forward		$ 337,047 00	$ 257,946 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF FINANCE—*Concluded.*		
	GOVERNMENT AGENTS AND ASSESSORS, ETC.—*Concluded.*		
	Brought forward		$ 337,047 00 $ 257,946 00
115.	VICTORIA ASSESSOR.		
	Salaries:		
	Assessor	$ 2,100 00	
	Assistant Assessor	1,500 00	
	Clerk	1,464 00	
	Two Clerks @ $1,200 each	2,400 00	
	Junior Clerk	780 00	
	Stenographer	600 00	
	Three special Tax-collectors @ $1,500 each	4,500 00	
		$ 13,344 00	
	Expenses	1,200 00	
	Total of Vote No. 115		14,544 00
116.	WILMER SUB-AGENCY.		
	Salary:		
	Mining Recorder, Registrar, etc. .....$	1,764 00	
	Expenses	321 00	
	Total of Vote No. 116		2,085 00
117.	YALE SUB-AGENCY.		
	Salary:		
	Mining Recorder and Collector .....$	1,476 00	
	Expenses (including $900, repairs to building)	1,300 00	
	Total of Vote No. 117		2,776 00
118.	SUNDRY SUB-AGENCIES.		
	Commissions, salaries, and expenses .....$	1,020 00	
	Total of Vote No. 118		1,020 00
	Total		357,472 00
	MISCELLANEOUS.		
119.	Printing Public Accounts		4,500 00
120.	Interest on suitors' funds and Official Guardian deposits		6,000 00
121.	Delinquent extra municipal school taxes		10,000 00
122.	Operation of the "Amusements Tax Act" (salaries and expenses)		5,820 00
123.	Premium on fire insurance, Fairview Works		866 00
124.	Miscellaneous, not detailed in Estimates		50,000 00
			$ 692,604 00

No. of Vote.	SERVICE.		
125.	DEPARTMENT OF FISHERIES.		
	Salaries:		
	Assistant to the Commissioner	$ 3,420 00	
	Inspector of Fisheries	1,420 00	
	Stenographer	720 00	
	Salmon Investigator	1,500 00	
	Overseers and Inspectors	1,465 00	
		$ 8,525 00	
	Expenses:		
	Office supplies, etc.	2,300 00	
	Travelling expenses	3,500 00	
	Collection of fishery taxes	2,200 00	
	Seton Lake Hatchery	650 00	
	Total of Vote No. 125		$ 17,175 00
	DEPARTMENT OF LANDS.		
126.	MINISTER'S OFFICE.		
	Salaries:		
	Minister of Lands	$ 6,000 00	
	Secretary	1,800 00	
	Clerk and Stenographer	960 00	
		$ 8,760 00	
	Expenses:		
	Office supplies, etc.	850 00	
	Travelling expenses	1,500 00	
	Total of Vote No. 126		$ 11,110 00
127.	GENERAL OFFICE.		
	Salaries:		
	Deputy Minister	$ 3,600 00	
	Office Manager	2,400 00	
	Departmental Secretary	2,400 00	
	Chief Clerk	2,192 00	
	Accountant	1,800 00	
	Assistant Accountant	1,680 00	
	Forty-one Clerks	53,200 00	
	Thirteen Stenographers	10,550 00	
	Six Junior Clerks	2,760 00	
	Three Messengers	900 00	
	Total of Vote No. 127		81,482 00
128.	LANDS BRANCH.		
	Salaries:		
	Superintendent of Lands	$ 2,940 00	
	Three Inspectors of Pre-emptions	4,204 00	
	Total of Vote No. 128		7,144 00
	Carried forward		$ 99,736 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF LANDS—*Continued.*		
	Brought forward		$ 99,736 00
129.	FOREST BRANCH.		
	Salaries:		
	Chief Forester	$ 3,600 00	
	Two Foresters @ $2,820 each	5,640 00	
	Assistant Forester	2,400 00	
	Forest Assistant	1,500 00	
	Inspector	2,296 00	
	Six District Foresters	12,000 00	
	Accountant	1,800 00	
	Nineteen Clerks, District Offices	18,060 00	
	Supervisor of Scalers	2,700 00	
	Assistant Supervisor of Scalers	2,280 00	
	Recorder of Scaling	1,800 00	
	Check Scaler	1,620 00	
	Scalers and Tallymen	43,340 00	
	Two Inspectors of Rangers, six months	1,800 00	
	Thirty-two Rangers, six months	24,210 00	
	Three Assistant Rangers, six months	1,350 00	
	Ship Carpenter, six months	660 00	
	Telephone Lineman, six months	660 00	
	Captain, six months	660 00	
	Nine Engineers, six months	4,500 00	
	Total of Vote No. 129		132,876 00
130.	WATER BRANCH.		
	Salaries:		
	Comptroller of Water Rights	$ 4,000 00	
	Chairman, Board of Investigation	2,800 00	
	Member, Board of Investigation	3,000 00	
	Chief Engineer	2,700 00	
	Seven Engineers	14,280 00	
	Three Assistant Engineers	4,500 00	
	Total of Vote No. 130		31,280 00
131.	SURVEY BRANCH.		
	Salaries:		
	Surveyor-General	$ 3,600 00	
	Chief Draughtsman	2,400 00	
	Twenty-three Draughtsmen	33,384 00	
	Register Clerk	1,272 00	
	Map-mounter	1,200 00	
	Two Junior Clerks	960 00	
	Total of Vote No. 131		42,816 00
	GENERAL.		
132.	Temporary assistance	10,000 00	
	Total of Vote No. 132		10,000 00
	Carried forward		$ 316,708 00

No. of Vote.	SERVICE.			
	DEPARTMENT OF LANDS—*Concluded.*			
	GENERAL—*Concluded.*			
	Brought forward			$ 316,708 00
133.	Expenses (including General Office and Branches):			
	Office supplies, etc.		$ 25,500 00	
	Travelling expenses:			
	General Office	$ 350 00		
	Lands Branch	4,000 00		
	Forest Branch	20,500 00		
	Water Branch	7,500 00		
	Survey Branch	350 00		
			32,700 00	
	Maintenance of launches and autos and subsistence of crews, etc.		15,000 00	
	Rent and upkeep of District Offices		1,500 00	
	Incidentals		10,000 00	
	Total of Vote No. 133			84,700 00
	MISCELLANEOUS.			
134.	Forest Protection Fund ("Forest Act")			120,000 00
135.	Lumber trade extension			5,000 00
136.	Rainfall and climatic statistics			700 00
137.	Expenses *re* public irrigation corporations			2,000 00
138.	General water surveys			20,000 00
139.	Well-drilling salaries and expenses			6,000 00
140.	Conservation Fund			50,000 00
141.	Lithograph maps			5,000 00
142.	Land surveys			70,000 00
143.	Photo-topographical surveys			12,000 00
144.	General investigations			5,000 00
145.	Irrigation Convention, Nelson			500 00
	Total			$ 697,608 00
146.	DEPARTMENT OF LABOUR.			
	Salaries:			
	Deputy Minister		$ 3,420 00	
	Clerk and Stenographer		780,00	
	Statistician		1,500 00	
	Officer, Vancouver Labour Bureau		1,320 00	
	Temporary assistance		1,500 00	
			$ 8,520 00	
	Expenses:			
	Office supplies, etc.		3,650 00	
	Travelling expenses		2,000 00	
	Aid in securing special help for farmers and fruit-growers		2,000 00	
	Total of Vote No. 146			$ 16,170 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF MINES.		
147.	MINISTER'S OFFICE.		
	Salaries:		
	Minister of Mines	$ 6,000 00	
	Secretary	1,800 00	
		$ 7,800 00	
	Expenses:		
	Office supplies, etc.	750 00	
	Travelling expenses	1,000 00	
	Total of Vote No. 147		$ 9,550 00
148.	GENERAL OFFICE.		
	Salaries:		
	Deputy Minister	$ 3,600 00	
	Chief Clerk and Gold Commissioner	2,370 00	
	Clerk	840 00	
	Clerk and Stenographer	840 00	
	Temporary assistance	500 00	
		$ 8,150 00	
	Expenses:		
	Office supplies, etc.	2,350 00	
	Travelling expenses	300 00	
	Printing and binding	6,000 00	
	Total of Vote No. 148		16,800 00
149.	MINES INSPECTION BRANCH.		
	Salaries:		
	Chief Inspector of Mines	$ 4,500 00	
	Inspector	2,580 00	
	Two Inspectors @ $2,400 each	4,800 00	
	Inspector	1,980 00	
	Two Inspectors @ $1,860 each	3,720 00	
	Two Inspectors @ $1,800 each	3,600 00	
		$ 21,180 00	
	Expenses:		
	Office supplies, etc.	800 00	
	Travelling expenses	7,910 00	
	Total of Vote No. 149		29,890 00
150.	BUREAU OF MINES.		
	Salaries:		
	Provincial Mineralogist and Assayer	$ 4,120 00	
	Clerk	1,464 00	
	Assistant Assayer and Public Analyst	2,400 00	
	Caretaker	1,140 00	
	Temporary assistance	1,560 00	
	Carried forward	$ 10,684 00	$ 56,240 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF MINES—*Concluded.*		
150.	BUREAU OF MINES—*Concluded.*		
	Brought forward	$ 10,684 00	$ 56,240 00
	Expenses:		
	Office supplies, etc.	$ 5,000 00	
	Travelling expenses	500 00	
	Total of Vote No. 150		16,184 00
151.	MINE-RESCUE AND TRAINING STATIONS.		
	Salaries:		
	Two Instructors and Caretakers @ $1,260 each	$ 2,520 00	
	Instructor and Caretaker	1,200 00	
		$ 3,720 00	
	Expenses:		
	Office supplies, etc.	100 00	
	Apparatus and miscellaneous	10,000 00	
	Total of Vote No. 151		13,820 00
152.	COAL-MINERS' EXAMINATIONS.		
	Allowance to Examiners and Secretaries	$ 4,000 00	
	Total of Vote No. 152		4,000 00
153.	FIRST-AID WORK.		
	Salaries:		
	Instructor	$ 1,560 00	
	Expenses:		
	Travelling expenses, etc.	1,200 00	
	Total of Vote No. 153		2,760 00
	MISCELLANEOUS.		
154.	Grant to Vancouver Chamber of Mines		2,500 00
155.	"Mines Development Act," supplementary		75,000 00
156.	"Mineral Survey and Development Act," supplementary		25,000 00
	STATUTORY.		
	"Mines Development Act, 1916"	$ 60,000 00	
	"Mineral Survey and Development Act, 1917"	80,000 00	
			140,000 00
	Total		$ 335,504 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF THE PROVINCIAL SECRETARY.		
157.	MINISTER'S OFFICE.		
	Salaries:		
	Provincial Secretary	$ 6,000 00	
	Secretary	1,020 00	
		$ 7,020 00	
	Expenses:		
	Office supplies, etc.	750 00	
	Travelling expenses	1,000 00	
	Total of Vote No. 157		8,770 00
158.	GENERAL OFFICE.		
	Salaries:		
	Deputy Provincial Secretary	$ 3,360 00	
	Chief Clerk	2,112 00	
	Postal Clerk	1,440 00	
	Clerk	840 00	
	Stenographer	720 00	
	Temporary assistance	250 00	
		$ 8,722 00	
	Expenses:		
	Office supplies, etc.	1,504 00	
	Travelling expenses	100 00	
	Total of Vote No. 158		10,326 00
159.	PROVINCIAL BOARD OF HEALTH.		
	Salaries:		
	Secretary	$ 4,200 00	
	Hospital Inspector and Travelling Medical Officer	3,600 00	
	Chief Sanitary Inspector	2,100 00	
	Junior Clerk	840 00	
	Deputy Registrar, Births, Deaths, and Marriages	1,344 00	
	Clerk	1,200 00	
	Junior Clerk	540 00	
	Stenographer	840 00	
		$ 14,664 00	
	Expenses:		
	Office supplies, etc.	1,654 00	
	Travelling expenses	3,000 00	
	Medical inspection of schools	7,000 00	
	Incidentals and emergencies	6,400 00	
	Total of Vote No. 159		32,718 00
	Carried forward		$ 51,814 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF THE PROVINCIAL SECRETARY—*Continued.*		
	Brought forward		$ 51,814 00
160.	PROVINCIAL MUSEUM.		
	Salaries:		
	Director	$ 2,192 00	
	Recorder	720 00	
	Assistant Biologist	1,200 00	
	Attendant	1,080 00	
	Attendant	900 00	
	Temporary assistance	100 00	
		$ 6,192 00	
	Expenses:		
	Office supplies	625 00	
	Travelling expenses	100 00	
	Collection and purchase of specimens	300 00	
	Incidentals	1,183 00	
	Total of Vote No. 160		8,400 00
	MENTAL HOSPITALS.		
161.	NEW WESTMINSTER.		
	Salaries:		
	Assistant Medical Superintendent	$ 2,100 00	
	Assistant Physician	1,800 00	
	Bursar	1,320 00	
	Assistant Bursar	1,080 00	
	Stenographer	960 00	
	Sundry employees	54,296 00	
		$ 61,556 00	
	Expenses:		
	Office supplies, etc.	760 00	
	Travelling expenses	125 00	
	Fuel, light, and water	13,675 00	
	Maintenance and repairs of buildings, etc.	7,925 00	
	Furniture and fixtures	2,000 00	
	Provisions	35,500 00	
	Uniforms and clothing	20,750 00	
	Medical and surgical supplies	2,000 00	
	Examinations, committals, and transportation	1,567 00	
	Incidentals and unforeseen	11,150 00	
	Total of Vote No. 161	$ 157,008 00	
	Carried forward	$ 157,008 00	$ 60,214 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF THE PROVINCIAL SECRETARY—*Continued.*		
	MENTAL HOSPITALS—*Concluded.*		
	Brought forward	$ 157,008 00	$ 60,214 00
162.	ESSONDALE.		
	Salaries:		
	Acting Medical Superintendent	$ 3,000 00	
	Assistant Physician	2,100 00	
	Bursar	2,028 00	
	Assistant Bursar	1,200 00	
	Analyst	1,080 00	
	Stenographer	1,080 00	
	Sundry employees	60,890 00	
		$ 71,378 00	
	Expenses:		
	Office supplies, etc.	2,920 00	
	Travelling expenses	1,000 00	
	Fuel, light, and water	23,500 00	
	Maintenance and repairs of buildings, etc.	15,500 00	
	Furniture and fixtures	8,000 00	
	Provisions, etc.	58,000 00	
	Uniforms and clothing	12,000 00	
	Medical and surgical supplies	1,000 00	
	Examinations, committals, and transportation	5,000 00	
	Incidentals and unforeseen	17,800 00	
	Total of Vote No. 162		216,098 00
163.	COLONY FARM AND NURSERY.		
	Salaries:		
	Farm Superintendent	$ 2,400 00	
	Clerk	900 00	
	Sundry employees	16,260 00	
		$ 19,560 00	
	Expenses:		
	Office supplies, etc.	425 00	
	Travelling expenses	500 00	
	Fuel, light, and water	1,800 00	
	Maintenance and repairs of buildings, etc.	4,255 00	
	Provisions, etc.	4,500 00	
	Feed for stock	13,100 00	
	Fertilizer and seed	2,635 00	
	Testing cows	1,000 00	
	Incidentals and unforeseen	2,350 00	
	Total of Vote No. 163		50,125 00
			423,231 00
	Carried forward		$ 483,445 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF THE PROVINCIAL SECRETARY—*Continued.*		
	Brought forward		$ 483,445 00
164.	PROVINCIAL HOME, KAMLOOPS.		
	Salaries:		
	Superintendent	$ 1,080 00	
	Matron	720 00	
	Sundry employees	6,310 00	
		$ 8,110 00	
	Expenses:		
	Office supplies, etc.	127 00	
	Furniture and fixtures	350 00	
	Fuel, light, and water	5,600 00	
	Maintenance and repairs of buildings, etc.	1,035 00	
	Provisions, etc.	14,000 00	
	Clothing, etc.	2,500 00	
	Medical and surgical supplies	500 00	
	Transportation of inmates	250 00	
	Feed for live stock	400 00	
	Incidentals and unforeseen	300 00	
	Total of Vote No. 164		33,172 00
	GRANTS TO HOSPITALS AND CHARITIES.		
165.	Statutory grants to Hospitals	$ 350,000 00	
166.	Special grants to Hospitals	30,000 00	
167.	Grants to Refuge Homes, Aid Societies, etc.	17,000 00	
168.	In aid of destitute poor and sick	20,000 00	
169.	In aid of Resident Physicians	11,050 00	
170.	Burial of indigent persons	3,000 00	
			431,050 00
171.	KING'S PRINTER.		
	Salaries:		
	King's Printer and Comptroller of Stationery	$ 2,620 00	
	Chief Clerk	1,920 00	
	Clerk	1,536 00	
	Accountant	1,260 00	
	Junior Clerk	480 00	
	Storekeeper	1,464 00	
	Mail Clerk	1,284 00	
	Packer	960 00	
	Foreman, Composing-room	1,860 00	
	Assistant Foreman, Composing-room	1,590 00	
	Chief Linotype Operator	1,590 00	
	Four Linotype Operators	5,880 00	
	Machinist	1,620 00	
	Job Printer	1,506 00	
	Gazette Compositor	1,506 00	
	Carried forward	$ 27,076 00	$ 947,667 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF THE PROVINCIAL SECRETARY—*Concluded.*		
	Brought forward	$ 27,076 00	$ 947,667 00
171.	KING'S PRINTER—*Concluded.*		
	Salaries—*Concluded.*		
	Two Compositors	2,892 00	
	Four Compositors	5,544 00	
	Proof-reader	1,590 00	
	Assistant Proof-reader	1,440 00	
	Copy-holder	876 00	
	Foreman, Press-room	1,860 00	
	Two Pressman	2,832 00	
	Four Pressmen	5,400 00	
	Press-feeder	1,080 00	
	Paper-stockman	990 00	
	Folder and stitcher	660 00	
	Foreman, Bindery	1,860 00	
	Finisher	1,320 00	
	Nine Forwarders	10,800 00	
	Stock-cutter	1,200 00	
	Forewoman	900 00	
	Assistant Forewoman	780 00	
	Seven Folders and Sewers	4,200 00	
	Temporary assistance	12,000 00	
		$ 85,300 00	
	Expenses:		
	Office supplies, etc.	1,578 00	
	Travelling expenses	50 00	
	Printing-paper, material, and incidentals	35,000 00	
	New machinery	1,000 00	
	Stationery	30,000 00	
	Total of Vote No. 171		152,928 00
	MISCELLANEOUS.		
172.	Registration of voters	$ 2,000 00	
173.	Royal Commissions	1,500 00	
174.	Grants to Civil Servants and employees on military duty	125,000 00	
175.	Grant to University of British Columbia	220,000 00	
176.	Grant to Tranquille Sanatorium for New Wing (conditional) ..	75,000 00	
177.	Grant to City of Greenwood	1,000 00	
178.	Grant to City of Phoenix	4,500 00	
179.	Grant to City of Rossland	12,000 00	
180.	Grant to Y.M.C.A. *re* overseas service	7,500 00	
181.	Grant to Pacific North-west Tourist Association	11,250 00	
182.	Grant for patriotic purposes	24,000 00	
183.	"Civil Service Act"	3,000 00	
184.	Superannuation	45,000 00	
185.	Contingencies	1,000 00	
			532,750 00
	Total		$1,633,345 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF PUBLIC WORKS.		
186.	MINISTER'S OFFICE.		
	Salaries:		
	Minister of Public Works	$ 6,000 00	
	Secretary	1,800 00	
		$ 7,800 00	
	Expenses:		
	Office supplies, etc.	465 00	
	Travelling expenses	1,500 00	
	Total of Vote No. 186		$ 9,765 00
187.	GENERAL OFFICE.		
	Salaries:		
	Deputy Minister	$ 3,360 00	
	Public Works Engineer	3,600 00	
	Assistant Public Works Engineer	2,640 00	
	Office Engineer	2,400 00	
	Designing Engineer	2,400 00	
	Acting Supervising Architect	2,000 00	
	Draughtsman	1,800 00	
	Draughtsman	1,780 00	
	Chief Clerk and Accountant	2,520 00	
	Assistant Accountant	1,620 00	
	Clerk	1,620 00	
	Two Clerks @ $1,320 each	2,640 00	
	Four Clerks @ $1,200 each	4,800 00	
	Junior Clerk	600 00	
	Stenographer	960 00	
	Two Stenographers @ $900 each	1,800 00	
		$ 36,540 00	
	Expenses:		
	Office supplies, etc.	3,000 00	
	Travelling expenses	1,800 00	
	Total of Vote No. 187		41,340 00
188.	DISTRICT ENGINEERS.		
	Salaries:		
	Seven Engineers @ $2,400 each	$ 16,800 00	
	Seven Clerks @ $1,200 each	8,400 00	
		$ 25,200 00	
	Expenses:		
	Office supplies, etc.	2,500 00	
	Travelling expenses	10,000 00	
	Total of Vote No. 188		37,700 00
	Carried forward		$ 88,805 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF PUBLIC WORKS—*Continued.*		
	Brought forward		$ 88,805 00
189.	STEAM-BOILER INSPECTION.		
	Salaries:		
	Chief Inspector	$ 3,600 00	
	Two Inspectors @ $2,640 each	5,280 00	
	Inspector	2,580 00	
	Inspector	2,520 00	
	Two Inspectors @ $2,400 each	4,800 00	
	Two Inspectors @ $2,280 each	4,560 00	
	Two Inspectors @ $2,220 each	4,440 00	
	Three Inspectors @ $2,040 each	6,120 00	
	Clerk	960 00	
	Four Stenographers @ $780 each	3,120 00	
		$ 37,980 00	
	Expenses:		
	Office supplies, etc.	2,366 00	
	Travelling expenses	7,320 00	
	Launches (maintenance, wages, and supplies)	3,000 00	
	Testing instruments, chemicals, etc.	2,200 00	
	Total of Vote No. 189		52,866 00
190.	"ELECTRICAL ENERGY INSPECTION ACT."		
	Salaries:		
	Inspector	$ 3,020 00	
	Assistant Inspector	1,800 00	
		$ 4,820 00	
	Expenses:		
	Office supplies, etc.	160 00	
	Travelling expenses	1,000 00	
	Total of Vote No. 190		5,980 00
191.	"FACTORIES ACT."		
	Salaries:		
	Inspector	$ 2,280 00	
	Assistant Inspector	1,800 00	
	Stenographer	900 00	
	Temporary assistance	24 00	
		$ 5,004 00	
	Expenses:		
	Office supplies	145 00	
	Travelling expenses	1,800 00	
	Total of Vote No. 191		6,949 00
	Carried forward		$ 154,600 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF PUBLIC WORKS—*Continued.*		
	Brought forward		$ 154,600 00
192.	MAINTENANCE OF GOVERNMENT HOUSE AND GROUNDS.		
	Salaries:		
	Private Secretary	$ 2,100 00	
	Expenses:		
	Fuel, light, and water	1,700 00	
	Maintenance and repairs of buildings	1,133 00	
	Gardening and improvements of grounds	7,500 00	
	Ground-rent and taxes	500 00	
	Miscellaneous	935 00	
	Total of Vote No. 192		13,868 00
193.	MAINTENANCE OF PARLIAMENT BUILDINGS AND GROUNDS.		
	Salaries:		
	Chief Janitor	$ 1,380 00	
	Janitor	1,140 00	
	Four Janitors @ $1,020 each	4,080 00	
	Eighteen Janitors @ $960 each	17,280 00	
	Four Watchmen @ $960 each	3,840 00	
	Usher	1,080 00	
	Assistant Usher	360 00	
	Engineer	1,800 00	
	First Assistant Engineer	1,500 00	
	Second Assistant Engineer	1,320 00	
	Plumber	1,500 00	
	Electrician	1,500 00	
	Carpenter	1,380 00	
	Head Gardener	1,200 00	
	Assistant Gardener	1,020 00	
	Telegraph Operator	960 00	
	Telegraph Messenger	360 00	
		$ 41,700 00	
	Expenses:		
	Fuel, light, and water	15,500 00	
	Maintenance and repairs of buildings	5,000 00	
	Gardening and improvement of grounds	5,294 00	
	Scavenging, cleaning, and janitors' supplies	2,000 00	
	Taxes	1,040 00	
	Special Guard	1,000 00	
	Garage	3,000 00	
	Miscellaneous	465 00	
	Total of Vote No. 193		74,999 00
194.	ROADS, STREETS, BRIDGES, AND WHARVES.		
	Maintenance and repairs	$1,427,040 00	
	Total of Vote No. 194		$1,427,040 00
	Carried forward		$1,670,507 00

No. of Vote.	SERVICE.		
	DEPARTMENT OF PUBLIC WORKS—*Concluded.*		
	Brought forward		$1,670,507 00
195.	STEAMBOATS, FERRIES, AND BRIDGES.		
	Subsidies and maintenance	$ 124,433 00	
	Total of Vote No. 195		$ 124,433 00
	Total		$1,794,940 00
	DEPARTMENT OF RAILWAYS.		
196.	GENERAL OFFICE.		
	Salaries:		
	Chief Engineer	$ 3,600 00	
	Assistant Engineer	3,000 00	
	Second Assistant Engineer	1,800 00	
	Inspector of Rolling-stock and Equipment	2,400 00	
	Clerk	1,200 00	
	Stenographer	780 00	
		$ 12,780 00	
	Expenses:		
	Office supplies, etc.	950 00	
	Travelling expenses	3,000 00	
	Total of Vote No. 196		$ 16,730 00
197.	FRASER RIVER BRIDGE, NEW WESTMINSTER.		
	Salaries, maintenance, and repairs	$ 25,000 00	
	Total of Vote No. 197		25,000 00
	Total		$ 41,730 00
	CAPITAL EXPENDITURES.		
198.	Sinking Funds:		
	"Loan Acts, 1891, 1893, 1895, 1899, and 1902"—1 per cent. per annum on Inscribed Stock, £2,045,760, payable in London, England, 30th June and 31st December = £20,457 12s. (NOTE.—Provided for until 1920 by transfer of Stock from Sinking Fund, Loan 1887.)		
	"Loan Act, 1914"—annual payment due on 1st April, 1918	$ 119,050 00	
	"Loan Act, 1915"—annual payment due on 1st Dec. 1918	238,908 00	
	"Loan Act, 1916"—annual payment due on 1st July, 1918	154,505 00	
	"Loan Act, 1917"—annual payment due on 1st Dec. 1918	8,610 00	
	Dyking Debentures—annual payment due on 1st July, 1918	7,867 00	
	Investment of Dividends	190,000 00	
	Total of Vote No. 198		$ 718,940 00
	Carried forward		$ 718,940 00

No. of Vote.	SERVICE.		
	CAPITAL EXPENDITURES—*Concluded.*		
	Brought forward		$ 718,940 00
199.	Nakusp & Slocan Railway Company:		
	Interest on Guaranteed Bonds	$ 12,897 12	
	Less earnings (approximate)	1,397 12	
	Total of Vote No. 199		11,500 00
200.	Pacific Great Eastern Railway Company—Interest on Guaranteed Bonds, due 15th July, 1918, and 15th January, 1919	$ 907,200 00	
	Total of Vote No. 200		907,200 00
201.	Wellington Collieries Railway Company—refund of deposit		15,000 00
202.	British Columbia House, London, England—instalment on mortgage		9,750 00
203.	Songhees Reserve		50,000 00
204.	Mental Hospital, Essondale		10,700 00
205.	Colony Farm, Essondale		4,000 00
206.	Roads, Streets, Bridges, and Wharves		208,650 00
207.	Ferries		17,700 00
	Total		$1,953,440 00

DETAILED STATEMENT OF VOTE No. 63.

Salaries of Teachers in Assisted Schools.

Yearly Salary.	School.
$ 900	Albert Canyon.
720	Albert Head.
1,020	Alexandria.
960	Alice Arm.
900	Alice Siding.
1,020	Alkali Lake.
780	Allen Grove.
900	Anarchist Mountain.
816	Anderson Creek.
900	Annable.
900	Arrow Park, West.
840	Ashton Creek.
876	Aspen Grove.
900	Athalmer.
960	Balfour.
840	Balmoral.
840	Bamfield.
1,140	Barkerville.
780	Barnston Island.
840	Barriere Power House.
900	Barriere River.
900	Barriere Valley.
780	Bear Creek.
900	Beaton.
1,080	Beaver Lake.
900	Belford.
960	Bella Coola.
960	Bella Coola, Lower.
840	Berrydale.
960	Bickle.
1,020	Big Bar.
1,080	Big Bar Mountain
1,020	Big Bar, Upper.
960	Big Eddy.
900	Blaeberry.
816	Blind Bay.
840	Blueberry Creek.
900	Blue River.
900	Bonaparte Valley.
780	Boston Bar.
900	Boswell.
840	Boundary Falls.
816	Bowen Island.
900	Bowie.
900	Box Lake.
900	Bridesville.
1,020	Brilliant, Principal.
1,020	Brilliant, Second Division.
900	Brisco.
960	Britannia Beach, Principal.
840	Britannia Beach, Second Division.
900	Britannia Mine.
900	Cahilty.
840	Campbell Range.
960	Canim Lake.
1,020	Cape Scott.
960	Cariboo.
840	Carlin Siding.
1,080	Cartier.
900	Castledale.
960	Castlegar.
1,020	Castle Rock.
960	Cawston.
$ 840	Chase Creek.
816	Chase Creek, Lower.
720	Chaumox.
960	Chief Lake.
960	Chilco.
1,020	Chimney Creek.
900	Chinook Cove.
960	Christian Valley.
840	Christina Lake.
900	Chu Chua.
900	Clearwater.
900	Coalmont.
936	Cokato.
900	Coltern.
840	Columbia Park.
900	Columbia Gardens.
780	Concord.
900	Copper City.
840	Copper Creek.
900	Copper Mountain.
900	Cortes Island.
840	Craigellachie.
840	Cranberry Marsh.
840	Crawford Creek.
840	Criss Creek.
840	Cultus Lake.
900	Curzon.
840	Darcy Mountain.
960	Deadwood.
840	Deep Creek.
780	Deer Lodge.
900	Deer Park.
900	Demars, West.
1,200	Discovery.
1,020	Dragon Lake.
900	Duhamel.
960	Dunster.
840	Eagle River.
840	Ecoole.
900	Edgewood.
840	Eholt.
960	Elk Bridge.
900	Elk Prairie.
1,176	Empire Valley.
960	Endako.
900	Erie.
900	Essondale.
900	Fairview.
900	Falkland.
840	False Bay.
840	Fauquier.
936	Ferguson.
900	Fife.
900	Fire Valley.
840	Fish Lake.
1,020	Flagstone.
840	Florence Mine.
960	Fort Fraser.
1,320	Fort George, Principal.
1,080	Fort George, Second Division.
1,200	Fort George, South.
900	Foster's Bar.
840	Galena.

DETAILED STATEMENT OF VOTE No. 63—*Continued.*

SALARIES OF TEACHERS IN ASSISTED SCHOOLS—*Continued.*

Yearly Salary.	School.
$ 900	Galena Bay.
780	Galiano.
780	Galiano, North.
900	Galloway.
720	Ganges.
840	Ganges Harbour.
840	Gerrard.
840	Gillis Bay.
840	Gilpin.
960	Giscome.
1,020	Glade, Principal.
1,020	Glade, Second Division.
1,020	Glencoe.
780	Glenrosa.
900	Granite Bay.
780	Half Moon Bay.
900	Hall's Landing.
1,080	Harper's Camp.
840	Harrogate.
936	Harrop.
960	Hartley.
816	Hat Creek.
900	Haysport.
1,080	Hazelton.
1,080	Hazelton, New.
936	Heffley Creek.
900	Heffley Lake.
840	Hendon.
900	Heriot Bay.
840	Heydon Bay.
780	Hidden Bay.
720	Highland.
1,020	Hilborn.
900	Hilltop.
900	Hilton.
780	Hope Station.
780	Hornby Island.
900	Horse Creek.
960	Hosmer.
960	Houston.
900	Hupel.
900	Hurlingham.
840	Huscroft.
840	Ingram Mountain.
900	Invermere.
900	Inverness.
900	Ioco.
816	Isabella Point.
780	James Island.
780	Jordan River.
840	Kaleden.
900	Kaleva.
900	Kedleston.
780	Keefers.
840	Kelowna, East.
900	Kettle River, North.
900	Kettle Valley.
840	Kildonan.
900	Killarney.
1,020	Kimberley.
900	Kingcome Inlet.
900	Kingsgate.
$ 840	Kinnaird.
1,020	Kitimat.
816	Knutsford.
840	Koch Siding.
1,020	Krestova.
816	Lac du Bois.
936	Lac la Hache.
780	Lake Buntzen.
900	Little Fort.
840	Loco.
936	Lucerne.
900	Mabel Lake.
1,200	Malcolm Island, Principal.
900	Malcolm Island, Second Division.
960	Mapes.
720	Marron Lake.
840	Marshall.
1,020	Masset.
840	Meadowbrook.
840	Meadow Spur.
840	Meadow Valley.
1,080	Meldrum Creek.
1,080	Metlakatla.
900	Mill Brook Cove.
900	Mill Creek, Principal.
780	Mill Creek, Second Division.
900	Moberly.
816	Model Farms.
960	Morrissey Mines.
900	Mount Ingersoll.
816	Moyase.
1,020	Moyie, Principal.
840	Moyie, Second Division.
840	Myncaster.
1,020	Macalister.
1,200	McBride.
900	McGuire.
960	MacKenzie.
840	McMurdo.
960	Nechako.
900	Needles.
900	Nickel Plate Mine.
900	Nimpkish.
780	Nine-mile Creek.
900	Noosatsum.
840	Okanagan Centre.
840	Okeover Arm.
900	Olalla.
840	Olsen Lake.
960	Osland.
900	Osoyoos.
1,020	Outlook.
900	Pachelqua.
900	Pacific.
840	Parson.
1,080	Pass Creek.
876	Pavilion.
720	Pemberton Meadows.
816	Pemberton Range
840	Pender Harbour.
936	Perry Siding.
840	Pinantan.

DETAILED STATEMENT OF VOTE No. 63—*Concluded.*

Salaries of Teachers in Assisted Schools—*Concluded.*

Yearly Salary.	School.
$ 780	Popcum.
960	Porcher Island.
960	Port Alice.
1,020	Port Clements.
900	Port Hardy.
780	Port Renfrew.
1,200	Pouce Coupe.
1,200	Pouce Coupe, Central.
1,200	Pouce Coupe, North.
900	Princeton, East.
960	Quatsino.
1,020	Queen Charlotte.
840	Ray Lake.
840	Refuge Cove.
840	Reiswig.
900	Renata.
780	Retreat Cove.
900	Richland.
876	Riondel.
840	Roberts Creek.
900	Robin's Range.
900	Rock Bay.
960	Rock Creek.
960	Roe Lake.
876	Roosville.
900	Round Top.
840	Saint Elmo.
840	Salmon Bench.
900	Salmon Valley.
840	Sand Creek.
1,080	Sand Spit.
1,200	Saskatoon Creek.
840	Savary Island.
816	Savona Road.
900	Sayward.
780	Sechelt.
876	Seton Lake.
900	Seymour Arm.
876	Shoreacres.
840	Shuswap Falls.
876	Shuswap, North.
840	Shutty Bench.
900	Sicamous.
876	Silver Creek.
900	Similkameen.
840	Sinclair.
816	Sirdar.
1,020	Sister's Creek.
1,020	Skidegate.
780	Skookumchuck.
840	Smith's Landing.
1,080	Soda Creek.
900	Solsqua.
660	Sooke Harbour.
840	Sorrento.
1,020	Springhouse.
900	Squam Bay.
$ 840	Squirrel Cove.
960	Standard Mine.
960	Stellaco.
960	Stewart.
1,020	Strandby.
840	Sullivan Valley.
816	Sunnybrae.
840	Sunnyside.
780	Sunnyside, No. 2.
960	Swanson Bay.
900	Swift Creek.
840	Syringa Creek.
840	Taft.
840	Tappen Valley.
960	Tatalaska.
1,260	Telegraph Creek.
960	Telkwa.
900	Three Forks.
840	Three Valley.
936	Thrums.
900	Thurlow.
840	Tranquille.
840	Trapp Lake.
840	Trout Creek, Upper.
960	Trout Lake.
900	Tulameen.
840	Turtle Valley.
936	Uculelet.
900	Ucluelet Arm.
900	Ucluelet East.
900	Usk.
900	Valdes Island.
1,080	Vanderhoof.
900	Vavenby.
780	Walhachin.
840	Wanklyn.
900	Wapta.
900	Wasa.
816	Watmore.
780	West View.
900	Whaletown.
1,080	Whatshan.
816	Wheeler Mountain.
840	White Lake.
1,020	Williams Lake.
900	Williams Siding.
960	Willow River.
900	Wilmer.
840	Windermere.
960	Winlaw.
1,020	Woden River.
840	Wolfson Bay.
900	Woodville Road.
960	Wynndel.
900	Yahk.
840	Yale.

DETAILED STATEMENT OF VOTE No. 64.

SALARIES OF TEACHERS OF SCHOOLS IN ESQUIMALT & NANAIMO RAILWAY BELT.

Yearly Salary.	School.
$ 780	Beaver Creek.
900	Bench.
720	Bowser.
1,200	Brechin, Principal.
960	Brechin, Second Division.
840	Brechin, Third Division.
780	Brechin, Fourth Division.
720	Cedar, East.
960	Cedar, North, Principal.
780	Cedar, North, Second Division.
936	Cedar, South.
1,080	Chase River, Principal.
900	Chase River, Second Division.
780	Chase River, Third Division.
780	Cherry Creek.
780	Cobble Hill.
960	Comox, Principal.
780	Comox, Second Division.
960	Cowichan, Principal.
780	Cowichan, Second Division.
780	Cowichan Lake.
900	Departure Bay.
960	Diamond Crossing, Principal.
780	Diamond Crossing, Second Division.
840	Errington.
1,140	Extension, Principal.
900	Extension, Second Division.
780	Extension, Third Division.
840	Fanny Bay.
840	French Creek.
840	Gill.
840	Glenora.
900	Grantham.
840	Grant Mine.
1,320	Harewood, Principal.
1,080	Harewood, Second Division.
960	Harewood, Third Division.
840	Harewood, Fourth Division.
780	Harewood, Fifth Division.
780	Harewood, Sixth Division.
780	Harewood, Seventh Division.
780	Harewood, Eighth Division.
780	Headquarters.
780	Hillier.
840	Koksilah.
900	Lazo.
936	Malahat.
960	Minto, Principal.
780	Minto, Second Division.
720	Montrose.
900	Mountain.
1,020	Nanaimo Bay, Principal.
900	Nanaimo Bay, Second Division.
816	Nanoose Bay.
780	Nob Hill.
960	Northfield, Principal.
780	Northfield, Second Division.
1,020	Number 7 Mine, Principal.
840	Number 7 Mine, Second Division.
876	Oyster.
900	Oyster, North.
960	Parksville, Principal.
780	Parksville, Second Division.
960	Qualicum Beach, Principal.
720	Qualicum Beach, Second Division.
840	Qualicum, Little.
780	Royston.
780	Sahtlam.
900	Sandwick.
960	Shawnigan, Principal.
780	Shawnigan, Second Division.
1,020	Union Bay, Principal.
840	Union Bay, Second Division.
720	Waterloo.
960	Wellington, Principal.
720	Wellington, Second Division.
1,260	Wellington, South, Principal.
1,080	Wellington, South, Second Division.
960	Wellington, South, Third Division.
840	Wellington, South, Fourth Division.
780	Wellington, South, Fifth Division.

1917-1918.

SUPPLEMENTARY ESTIMATES OF EXPENDITURE

FOR THE

FISCAL YEAR ENDING 31ST MARCH, 1918.

No. of Vote.	SERVICE.		
	I.—PUBLIC DEBT.		
1.	"Loan Act, 1917," 4 months' interest @ 5% on Debenture of $300,000		$ 5,000 00
	II.—CIVIL GOVERNMENT (SALARIES).		
15.	ATTORNEY-GENERAL'S DEPARTMENT.		
	Supreme and County Courts, Vancouver, salary of Clerk, 2 months @ $90	$ 180 00	
	Land Registry Office, Vancouver, salary of clerk, 1 month @ $129	129 00	
16.	GOVERNMENT AGENCIES.		
	Westminster District Agencies, increase in salaries of Janitors..	305 00	
			614 00
	V.—PUBLIC INSTITUTIONS (MAINTENANCE).		
34.	Provincial Home, Kamloops (additional to $22,150 voted)		500 00
	VI.—HOSPITALS AND CHARITIES.		
38.	Statutory grants to Hospitals (additional to $275,000 voted)...	$ 33,000 00	
41.	"Infants' Act" (including statutory grants), additional to $11,000 voted	3,000 00	
			36,000 00
	VIII.—EDUCATION.		
87.	*Per capita* grant to city, municipality and rural school districts (additional to $905,000 voted)		32,000 00
	X.—DEPARTMENT OF AGRICULTURE.		
114A.	Stocking and operating Frondeg Farm (additional to Special Warrant No. 15 for $10,000)	$ 4,000 00	
114B.	Fish fertilizer	3,500 00	
			7,500 00
	XII.—PUBLIC WORKS.		
	WORKS AND BUILDINGS.		
117.	Furniture, Government offices throughout the Province (additional to $8,000 voted)	$ 400 00	
126.	Provincial Government Buildings, London, England (additional to $23,000 voted)	9,000 00	
	Carried forward	$ 9,400 00	$ 81,614 00

No. of Vote.	SERVICE.		
	Brought forward	$ 9,400 00	$ 81,614 00
	XII.—PUBLIC WORKS—*Concluded.*		
	WORKS AND BUILDINGS—*Concluded.*		
127.	Provincial Normal School, Vancouver (additional to $3,000 voted)	250 00	
129.	Public schools throughout the Province (additional to $106,000 voted)	94,000 00	
129A.	Prison Farm, Oakalla (claim, Merchants' Bank of Canada)....	2,400 00	
132.	Repairs to Parliament Buildings (additional to $12,000 voted and Special Warrant No. 39 for $1,000).....	1,600 00	
	ROADS, STREETS, BRIDGES, AND WHARVES.		
136.	Chilliwack District (additional to $18,700 voted)	1,200 00	
137.	Columbia District (additional to $20,700 voted)	200 00	
140.	Cranbrook District (additional to $28,700 voted)	300 00	
143.	Esquimalt District (additional to $23,700 voted)	1,500 00	
155.	New Westminster District (additional to $3,700 voted)	6,300 00	
158.	Omineca District (additional to $43,700 voted and Special Warrant No. 33 for $7,500)	2,500 00	
162.	Rossland District (additional to $3,810 voted)	100 00	
171.	Roads, Point Grey (additional to $10,000 voted)	250 00	
184A.	Ditch, McKinney Creek.....	1,500 00	
	SUBSIDIES AND MAINTENANCE, STEAMBOATS, FERRIES, AND BRIDGES.		
	Ferries.		
185.	Barnston Island (additional to $1,000 voted)	230 00	
188.	Columbia River, Goldstream (additional to $180 voted)	6 00	
189.	Columbia River, Waterloo (additional to $500 voted to meet expenditures of 1916-17)	500 00	
195.	Fraser River, Big Bar (additional to $1,050 voted)	225 00	
202.	Fraser River, Quesnel (additional to $1,800 voted)	700 00	
203.	Fraser River, Soda Creek (additional to $1,200 voted)	20 00	
207.	Hall's Landing (additional to $3,000 voted)	2,500 00	
209.	Kootenay River, Lewis (additional to $100 voted)	23 00	
210.	Kootenay River, Reclamation Farm (additional to $1,100 voted)	265 00	
217.	North Thompson River, Jones (additional to $650 voted)	30 00	
223.	South Thompson River, Pritchard (additional to $750 voted) ..	150 00	
226.	Skeena River, Breckenridge (additional to $920 voted and Special Warrant No. 21 for $280)	165 00	
232.	Skeena River, Terrace (additional to $2,280 voted and Special Warrant No. 41 for $550)	300 00	
	MISCELLANEOUS.		
249.	Special Guard, Parliament Buildings (additional to $1,500 voted and Special Warrant No. 2 for $1,080)	500 00	
			127,114 00
	Carried forward		$ 208,728 00

No. of Vote.	SERVICE.		
	Brought forward		$ 208,728 00
	XIII.—MISCELLANEOUS.		
	PROVINCIAL SECRETARY'S DEPARTMENT.		
255.	Postage (additional to $30,000 voted)	$ 2,000 00	
269A.	Gratuity to the widow of Wm. Forsythe, equivalent of 3 months' salary	213 00	
269B.	Gratuity to the widow of H. P. Forrest, equivalent of 3 months' salary	270 00	
	ATTORNEY-GENERAL'S DEPARTMENT.		
277.	Motor-traffic regulation (plates, badges, express, etc.), additional to $7,000 voted	750 00	
281.	"Moving Pictures Act" (supplies), additional to $500 voted ...	100 00	
	AGENT-GENERAL'S OFFICE, LONDON.		
284.	Salary of Agent-General, including clerical assistance, advertising, etc. (additional to $60,000 voted)	13,000 00	
			16,333 00
	Total		$ 225,061 00

1916-1917.

SCHEDULE A.

SUMS GRANTED TO HIS MAJESTY TO MAKE GOOD CERTAIN SUMS EXPENDED FOR THE PUBLIC SERVICE FOR THE PERIOD ENDED 31ST MARCH, 1917, AND TO INDEMNIFY THE SEVERAL OFFICERS AND PERSONS FOR MAKING SUCH EXPENDITURES.

SERVICE.	Total.
VI.—HOSPITALS AND CHARITIES:	
Grants to Hospitals ..... $	5,985 55

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

ANNUAL REPORT

OF THE

MINISTER OF MINES

FOR THE

YEAR ENDING 31ST DECEMBER

1917

BEING AN ACCOUNT OF

MINING OPERATIONS FOR GOLD, COAL, ETC.

IN THE

PROVINCE OF BRITISH COLUMBIA

THE GOVERNMENT OF
THE PROVINCE OF BRITISH COLUMBIA.

PRINTED BY
AUTHORITY OF THE LEGISLATIVE ASSEMBLY.

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

To His Honour Sir Frank Stillman Barnard, K.C.M.G.,
Lieutenant-Governor of the Province of British Columbia.

May it please Your Honour:

The Annual Report of the Provincial Mineralogist upon the Mining Industry of the Province for the year 1917 is herewith respectfully submitted.

WILLIAM SLOAN,
Minister of Mines.

Minister of Mines' Office,
February 27th, 1918.

General View, Granby Smelter, Anyox, B.C.

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To the Honourable William Sloan,
Minister of Mines.

Sir,—I have the honour to submit herewith my Annual Report on the Mining Industry of the Province for the year ending December 31st, 1917.

The statistical tables give the total mineral output of the Province to date, and show in considerable detail the actual mineral production of the past year, as based on smelter or mill returns; also, a summary of the production of each of the last four years, thus illustrating by comparison the progress made in productive mining during this period.

To facilitate comparison with information previously given, I have retained, as closely as was possible, the general form already established for such tables and for the Report.

I have the honour to be,
Sir,
Your obedient servant,

WILLIAM FLEET ROBERTSON,
Provincial Mineralogist.

Bureau of Mines, Victoria, B.C.,
February 27th, 1918.

MINERAL PRODUCTION OF BRITISH COLUMBIA.

METHOD OF COMPUTING PRODUCTION.

In assembling the output of the lode mines in the following tables, the established custom of this Bureau has been adhered to, viz.: The output of a mine for the year is considered that amount of ore for which the smelter or mill returns have been received during the year. This system does not give the exact amount mined during the year, but rather the amount credited to the mine on the company's books during such year.

For ore shipped in December the smelter returns are not likely to be received until February in the new year, or later, and have, consequently, to be carried over to the credit of such new year. This plan, however, will be found very approximate for each year, and ultimately correct, as ore not credited in one year is credited in the next.

In the lode mines tables, the amount of the shipments has been obtained from certified returns received from the various mines, as provided for in the "Inspection of Metalliferous Mines Act, 1897." In calculating the value of the products, the average prices for the year in the New York Metal Market have been used as a basis. For silver 95 per cent., for lead 90 per cent., and for zinc 85 per cent. of such market prices have been taken. Treatment and other charges have not been deducted, except that in copper the amount of metal actually recovered has been taken, thus covering loss in slags.

TABLE I.—Total Production for all Years up to and including 1917.

Gold, placer	$ 75,116,103
Gold, lode	93,717,974
Silver	43,623,761
Lead	39,366,144
Copper	130,597,620
Zinc	10,379,018
Coal and coke	174,313,658
Building-stone, bricks, etc.	27,902,381
Miscellaneous minerals, etc.	554,448
Total	$595,571,107

TABLE II.—Production for each Year from 1852 to 1917 (inclusive).

1852 to 1892 (inclusive)	$ 81,090,069
1893	3,588,413
1894	4,225,717
1895	5,643,042
1896	7,507,956
1897	10,455,268
1898	10,906,861
1899	12,393,131
1900	16,344,751
1901	20,086,780
1902	17,486,550
1903	17,495,954
1904	18,977,359
1905	22,461,325
1906	24,980,546
1907	25,882,560
1908	23,851,277
1909	24,443,025
1910	26,377,066
1911	23,499,072
1912	32,440,800
1913	30,296,398
1914	26,388,825
1915	29,447,508
1916	42,290,462
1917	37,010,392
Total	$595,571,107

Table III. gives a statement in detail of the quantities and value of the different mineral products for the years 1915, 1916, and 1917. It has been impossible as yet to collect complete statistics regarding building-stone, lime, bricks, tiles, and other miscellaneous products, but such figures as it has been possible to secure are given in some detail in Table V.

TABLE III.

QUANTITIES AND VALUE OF MINERAL PRODUCTS FOR 1915, 1916, AND 1917.

	Customary Measure.	1915.		1916.		1917.	
		Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Gold, placer	Ounces.	38,500	$ 770,000	29,025	$ 580,500	24,800	$ 496,000
" lode	"	250,021	5,167,934	221,932	4,587,334	114,523	2,367,190
Silver	"	3,366,506	1,588,991	3,301,923	2,059,739	2,929,216	2,265,749
Lead	Pounds	46,503,590	1,939,200	48,727,516	3,007,462	37,307,465	2,951,020
Copper	"	56,918,405	9,835,500	65,379,364	17,784,494	59,007,565	16,038,256
Zinc	"	12,982,440	1,460,524	37,168,980	4,043,985	41,848,513	3,166,259
Coal	Tons, 2,240 lb.	1,611,129	5,638,952	2,084,093	7,294,325	2,149,975	7,524,913
Coke	" "	245,871	1,475,226	267,725	1,606,350	159,905	959,430
Miscellaneous products			1,571,181		1,326,273		1,241,575
			$29,447,508		$42,290,462		$37,010,392

TABLE IV.

OUTPUT OF MINERAL PRODUCTS BY DISTRICTS AND DIVISIONS.

NAMES.	DIVISIONS.			DISTRICTS.		
	1915.	1916.	1917.	1915.	1916.	1917.
CARIBOO DISTRICT				$ 885,502	$ 778,157	$ 529,897
Cariboo Mining Division	$ 217,500	$ 162,000	$ 137,756			
Quesnel "	86,000	20,000	15,000			
Omineca "	582,002	596,157	377,141			
CASSIAR DISTRICT				4,420,988	7,210,949	8,485,438
EAST KOOTENAY DISTRICT				4,653,836	6,810,926	5,056,782
WEST KOOTENAY DISTRICT				7,308,793	9,101,905	5,972,545
Ainsworth Division	360,846	754,902	750,514			
Slocan and Slocan City "	2,455,462	3,761,091	3,554,055			
Nelson "	608,277	619,376	403,436			
Trail Creek "	3,865,284	3,935,836	1,197,283			
Other parts	18,924	30,700	67,257			
BOUNDARY-YALE DISTRICT				5,470,689	7,243,560	5,055,403
Osoyoos, Grand Forks & Greenwood Divisions	5,023,635	6,592,991	4,253,965			
Similkameen, Nicola, Vernon	371,733	450,780	571,300			
Yale, Ashcroft, Kamloops	75,321	199,789	230,138			
LILLOOET DISTRICT				25,643	65,457	73,175
COAST DISTRICT (Nanaimo, Alberni, Clayoquot, Quatsino, Victoria, Vancouver)				6,682,057	11,079,508	11,837,152
				$29,447,508	$42,290,462	$ 37,010,392

TABLE V.

Miscellaneous Products and Totals of Production, 1917.

District and Division.	Cement.	Lime and Limestone.	Building-stone.	Riprap.	Crushed Rock, Flux.	Sand and Gravel.	Pottery and Clay.	Fire, Face, and Red Brick.	Total Building Materials.	Miscellaneous Minerals.	Total Miscellaneous Products.	Total Output of Collieries.	Total of Metalliferous Minerals.	Totals for Divisions.	Totals for Districts.
	$	$	$	$	$	$	$	$	$	$	$	$	$	$	$
Cariboo															529,897
Cariboo		1,000			1,000	500			2,500	256	2,756		135,000	137,756	
Quesnel													15,000	15,000	
Omineca		1,000				500			1,500		1,500		375,641	377,141	
Cassiar															8,485,438
Atlin													325,670	325,670	
Skeena, Stikine-Liard, Portland C.-Queen Charlotte		1,000			77,742	1,000			79,742		79,742		8,080,026	8,159,768	
East Kootenay															5,056,782
Fort Steele		500			1,000	500			2,000		2,000	2,027,544	2,818,429	4,847,973	
Windermere-Golden		500			1,000	500			2,000		2,000		206,809	208,809	
West Kootenay															5,972,545
Ainsworth		500			500	500			1,500		1,500		749,014	750,514	
Slocan & Slocan City					500	500			1,000		1,000		3,553,055	3,554,055	
Nelson		1,000	1,000	1,000	1,000	1,320		4,500	9,820	10,472	20,292		383,144	403,436	
Trail Creek		500			1,000	1,000			2,500		2,500		1,194,783	1,197,283	
Other Divisions		500			1,000	500			2,000		2,000		65,257	67,257	
Boundary-Yale															5,055,403
Grand Forks, Greenwood, Osoyoos		2,000		1,000	29,904	1,000		2,850	36,754	25,251	62,005		4,191,960	4,253,965	
Similkameen, Nicola, Vernon		1,000		1,000	1,000	1,000		390	4,390		4,390	529,351	37,559	571,300	
Yale, Ashcroft, Kamloops		1,000		1,000	1,000	1,000			4,000		4,000		226,138	230,138	
Lillooet					1,000	1,000			2,000	1,050	3,050		70,125	73,175	73,175
Coast District	487,829	91,723	112,275	24,170	21,184	50,822	81,728	183,109	1,052,840		1,052,840	5,927,448	4,856,864	11,837,152	11,837,152
	487,829	102,223	113,275	28,170	138,830	61,642	81,728	190,849	1,204,546	37,029	1,241,575	8,484,343	27,284,474	37,010,392	37,010,392

TABLE VI.—PLACER GOLD.

Table VI. contains the yearly production of placer gold to date, as determined by the returns sent in by the banks and express companies, of gold transmitted by them to the mine, and from returns sent in by the Gold Commissioners and mining Recorders. To these yearly amounts one-third was added up to the year 1878; from then to 1895 and from 1898 to 1909, one-fifth; and since then one-tenth, which proportions are considered to represent, approximately, the amount of gold sold of which there is no record. This placer gold contains from 10 to 25 per cent. silver, but the silver value has not been separated from the totals, as it would be insignificant.

YIELD OF PLACER GOLD TO DATE.

1858	$ 705,000	1873	$ 1,305,749	1888	$ 616,731	1903	$ 1,060,420
1859	1,615,070	1874	1,844,618	1889	588,923	1904	1,115,300
1860	2,228,543	1875	2,474,004	1890	490,435	1905	969,300
1861	2,666,118	1876	1,786,648	1891	429,811	1906	948,400
1862	2,656,903	1877	1,608,182	1892	399,526	1907	828,000
1863	3,913,563	1878	1,275,204	1893	356,131	1908	647,000
1864	3,735,850	1879	1,290,058	1894	405,516	1909	477,000
1865	3,491,205	1880	1,013,827	1895	481,683	1910	540,000
1866	2,662,106	1881	1,046,737	1896	544,026	1911	426,000
1867	2,480,868	1882	954,085	1897	513,520	1912	555,500
1868	3,372,972	1883	794,252	1898	643,346	1913	510,000
1869	1,774,978	1884	736,165	1899	1,344,900	1914	565,000
1870	1,336,956	1885	713,738	1900	1,278,724	1915	770,000
1871	1,799,440	1886	903,651	1901	970,100	1916	580,500
1872	1,610,972	1887	693,709	1902	1,073,140	1917	496,000
						Total	$75,116,103

TABLE VII.—PRODUCTION OF LODE MINES.

Year.	Gold.		Silver.		Lead.		Copper.		Zinc.		Total Value.
	Oz.	Value.	Oz.	Value.	Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	
		$		$		$		$		$	$
1887	.....	.....	17,690	17,331	204,800	9,216	.....	.....	.....	.....	26,547
1888	.....	.....	79,780	75,000	674,500	29,813	.....	.....	.....	.....	104,813
1889	.....	.....	53,192	47,873	165,100	6,498	.....	.....	.....	.....	54,371
1890	.....	.....	70,427	73,948	*Nil.*	*Nil.*	.....	.....	.....	.....	73,948
1891	.....	.....	4,500	4,000	*Nil.*	*Nil.*	.....	.....	.....	.....	4,000
1892	.....	.....	77,160	66,935	808,420	33,064	.....	.....	.....	.....	99,999
1893	1,170	23,404	227,000	195,000	2,135,023	78,996	.....	.....	.....	.....	297,400
1894	6,252	125,014	746,379	470,219	5,662,523	169,875	324,680	16,234	.....	.....	781,342
1895	39,264	785,271	1,496,522	977,229	16,475,464	532,255	952,840	47,642	.....	.....	2,342,397
1896	62,259	1,244,180	3,135,343	2,100,689	24,199,977	721,384	3,818,556	190,926	.....	.....	4,257,179
1897	106,141	2,122,820	5,472,971	3,272,836	38,841,135	1,390,517	5,325,180	266,258	.....	.....	7,052,431
1898	110,061	2,201,217	4,292,401	2,375,841	31,693,559	1,077,581	7,271,678	874,781	.....	.....	6,529,420
1899	138,315	2,857,573	2,939,413	1,663,708	21,862,436	878,870	7,722,591	1,351,453	.....	.....	6,751,604
1900	167,153	3,453,381	3,958,175	2,309,200	63,358,621	2,691,887	9,997,080	1,615,289	.....	.....	10,069,757
1901	210,384	4,348,603	5,151,333	2,884,745	51,582,906	2,002,733	27,603,746	4,446,963	.....	.....	13,683,044
1902	236,491	4,888,269	3,917,917	1,941,328	22,536,381	824,832	29,636,057	3,446,673	.....	.....	11,101,102
1903	232,831	4,812,616	2,996,204	1,521,472	18,089,283	689,744	34,359,921	4,547,535	.....	.....	11,571,367
1904	222,042	4,589,608	3,222,481	1,719,516	36,646,244	1,421,874	35,710,128	4,578,037	.....	.....	12,309,035
1905	238,660	4,933,102	3,439,417	1,971,818	56,580,703	2,399,022	37,692,251	5,876,222	.....	.....	15,180,164
1906	224,027	4,630,639	2,990,262	1,897,320	52,408,217	2,667,578	42,990,488	8,288,565	.....	.....	17,484,102
1907	196,179	4,055,020	2,745,448	1,703,825	47,738,703	2,291 458	40,832,720	8,166,544	.....	.....	16,216,847
1908	255,582	5,282,880	2,631,389	1,321,483	43,195,733	1,632,799	47,274,614	6,240,249	.....	.....	14,477,411
1909	238,224	4,924,090	2,532,742	1,239,270	44,396,346	1,709,259	45,597,245	5,918,522	8,500,000	400,000	14,191,141
1910	267,701	5,533,380	2,450,241	1,245,016	34,658,746	1,386,350	38,243,934	4,871,512	4,184,192	192,473	13,228,731
1911	228,617	4,725,513	1,892,364	958,293	26,872,397	1,069,521	36,927,656	4,571,644	2,634,544	129,092	11,454,063
1912	257,496	5,322,442	3,132,108	1,810,045	44,871,454	1,805,627	51,456,537	8,408,513	5,358,280	316,139	17,662,766
1913	272,254	5,627,490	3,465,856	1,968,606	55,364,677	2,175,832	46,460,305	7,094,489	6,758,768	324,421	17,190,838
1914	247,170	5,109,004	3,602,180	1,876,736	50,625,048	1,771,877	45,009,699	6,121,319	7,866,467	346,125	15,225,061
1915	250,021	5,167,934	3,366,506	1,588,991	46,503,590	1,939,200	56,918,405	9,335,500	12,982,440	1,460,524	19,992,149
1916	221,932	4,587,334	3,301,923	2,059,739	48,727,516	3,007,462	65,379,364	17,784,494	37,168,980	4,043,985	31,483,014
1917	114,523	2,367,190	2,929,216	2,265,749	37,307,465	2,951,020	59,007,565	16,038,256	41,848,513	3,166,259	26,788,474
To'l	4,544,749	93,717,974	76,338,540	43,623,761	924,186,967	39,366,144	776,513,240	130,597,620	127,302,184	10,379,018	317,684,517

TABLE VIII.—COAL AND COKE PRODUCTION PER YEAR TO DATE.

COAL.

Year.	Tons (2,240 lb.).	Value.
1836-1881	1,873,907	$ 6,003,245
1882	282,139	846,417
1883	213,299	639,897
1884	394,070	1,182,210
1885	265,596	796,788
1886	326,636	979,908
1887	413,360	1,240,080
1888	489,301	1,467,903
1889	579,830	1,739,490
1890	678,140	2,034,420
1891	1,029,097	3,087,291
1892	826,335	2,479,005
1893	978,294	2,934,882
1894	1,012,953	3,038,859
1895	939,654	2,818,962
1896	896,222	2,688,666
1897	882,854	2,648,562
1898	1,135,865	3,407,595
1899	1,306,324	3,918,972
1900	1,439,595	4,318,785
1901	1,460,331	4,380,993
1902	1,397,394	4,192,182
1903	1,168,194	3,504,582
1904	1,253,628	3,760,884
1905	1,384,312	4,152,936
1906	1,517,303	4,551,909
1907	1,800,067	6,300,235
1908	1,677,849	5,872,472
1909	2,006,476	7,022,666
1910	2,800,046	9,800,161
1911	2,193,062	7,675,717
1912	2,628,804	9,200,814
1913	2,137,483	7,481,190
1914	1,810,967	6,338,385
1915	1,611,129	5,638,952
1916	2,084,093	7,294,325
1917	2,149,975	7,524,913
Total	47,044,584	$152,965,253

COKE.

Year.	Tons (2,240 lb.).	Value.
1895-97	19,396	$ 96,980
1898 (estimated)	35,000	175,000
1899	34,251	171,255
1900	85,149	425,745
1901	127,081	635,405
1902	128,015	640,075
1903	165,543	827,715
1904	238,428	1,192,140
1905	271,785	1,358,925
1906	199,227	996,135
1907	222,913	1,337,478
1908	247,399	1,484,394
1909	258,703	1,552,218
1910	218,029	1,308,174
1911	66,605	396,030
1912	264,333	1,585,998
1913	286,045	1,716,270
1914	234,577	1,407,462
1915	245,871	1,475,226
1916	267,725	1,606,350
1917	159,905	959,430
Total	3,775,370	$21,348,405

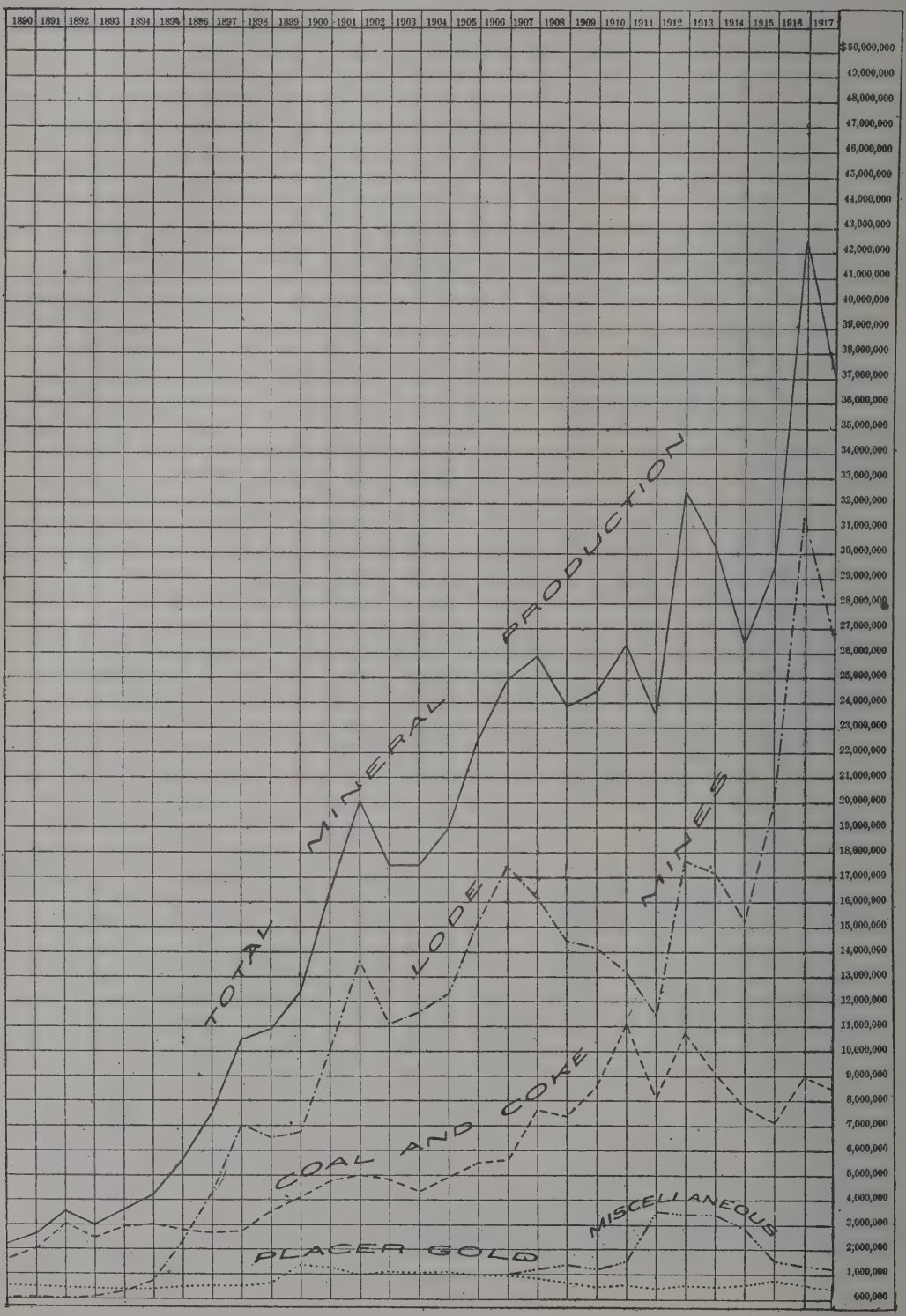
TABLE IX.—PRODUCTION IN DETAIL OF THE

DISTRICT.	YEAR	TONS.	GOLD—PLACER.		GOLD—LODE.		SILVER.	
			Ounces	Value.	Ounces.	Value.	Ounces.	Value.
				$		$		$
Cariboo								
Cariboo Division	1914		8,250	165,000				
	1915		10,750	215,000				
	1916		7,900	158,000				
	1917		6,750	135,000				
Quesnel "	1914		1,750	35,000				
	1915		4,250	85,000				
	1916		1,000	20,000				
	1917		750	15,000				
Omineca "	1914	850	300	6,000	203	4,196	135,265	70,473
	1915	17,545	600	12,000	1,524	31,501	79,155	37,361
	1916	17,752	850	17,000	1,303	26,933	112,635	70,262
	1917	4,159	600	12,000	931	19,244	82,311	63,668
Cassiar								
Atlin Division	1914	270	16,100	322,000	1,000	20,670		
	1915	320	18,850	377,000	875	18,086		
	1916	262	16,925	338,500	736	15,213	3,054	1,905
	1917	33	15,250	305,000	1,000	20,670		
Liard, Stikine, Skeena, Queen Charlotte, Portland Canal Divisions.	1914	261,987	1,150	23,000	2,884	59,612	131,509	68,516
	1915	646,391	1,450	29,000	5,034	104,053	175,179	82,684
	1916	732,880	1,100	22,000	3,806	78,670	256,802	160,193
	1917	821,819	350	7,000	9,805	202,669	343,805	265,933
East Kootenay								
Fort Steele Division	1914	36,384	50	1,000			492,080	256,374
	1915	44,372	750	15,000			481,258	227,154
	1916	98,846	200	4,000			509,693	317,946
	1917	114,391	100	2,000			180,168	139,360
Windermere-Golden	1914							
	1915	5,556					1,188	561
	1916	2,183					29,178	18,201
	1917	2,354					79,685	61,636
West Kootenay								
Ainsworth Division	1914	66,441			100	2,067	329,586	171,714
	1915	42,630			121	2,501	289,565	136,675
	1916	77,841			45	930	321,202	200,366
	1917	82,481			1	20	224,461	173,621
Slocan and Slocan City	1914	104,510			13	269	1,775,975	925,283
	1915	114,292			26	537	1,812,550	855,524
	1916	123,886			64	1,323	1,480,571	923,580
	1917	149,895			18	372	1,547,576	1,197,050
Nelson Division	1914	57,879			15,298	316,210	150,268	78,290
	1915	23,634	50	1,000	9,233	190,846	9,405	4,439
	1916	20,695	50	1,000	4,107	84,891	32,547	20,303
	1917	10,738	50	1,000	2,521	52,109	46,229	35,758
Trail Creek Division	1914	297,260			138,568	2,864,201	136,185	70,952
	1915	338,568			142,595	2,947,439	159,584	75,324
	1916	308,924			129,790	2,682,759	132,080	82,391
	1917	100,171			33,290	688,104	47,112	36,441
Revelstoke, Trout Lake and Lardeau	1914	149	100	2,000	8	165	11,295	5,885
	1915	155	100	2,000	15	310	16,740	7,901
	1916	521	50	1,000	22	455	22,419	13,985
	1917	534	50	1,000	62	1,282	37,733	29,187
Boundary-Yale								
(Grand Forks, Greenwood and Osoyoos Divisions.)	1914	1,093,229	50	1,000	84,908	1,775,048	347,981	181,298
	1915	1,228,724	100	2,000	87,870	1,816,279	273,795	129,231
	1916	1,343,353	50	1,000	75,628	1,563,231	280,578	175,025
	1917	779,345	50	1,000	58,544	1,210,104	220,213	170,335
Similkameen, Nicola, and Vernon Divisions	1914	150	150	3,000	35	724	15	8
	1915	225	600	12,000	101	2,088	347	164
	1916	1,416	450	9,000	32	661	830	518
	1917	1,384	400	8,000	111	2,294	3,470	2,684
Yale, Ashcroft and Kamloops Divisions	1914	279	150	3,000	14	289	57	30
	1915	2,134	500	10,000	106	2,191	1,702	803
	1916	7,414	150	3,000	570	11,782	4,215	2,629
	1917	8,254	100	2,000	1,355	28,008	3,525	2,727
Lillooet								
Lillooet and Clinton Divisions	1914	120	150	3,000	231	4,775	390	203
	1915	50	400	8,000	31	641	5	2
	1916	2,400	250	5,000	2,625	54,259		
	1917	4,700	300	6,000	3,092	63,912	276	213
Coast								
(Nanaimo, Alberni, Clayoquot, Quatsino, New Westminster, Vancouver, and Victoria Divisions.)	1914	256,463	50	1,000	3,908	80,778	91,574	47,710
	1915	225,454	100	2,000	2,490	51,468	66,033	31,168
	1916	449,992	50	1,000	3,204	66,227	116,119	72,435
	1917	681,321	50	1,000	3,793	78,402	112,652	87,136
TOTALS	1914	2,175,971	28,250	565,000	247,170	5,109,004	3,602,180	1,876,736
	1915	2,690,110	38,500	770,000	250,021	5,167,934	3,366,506	1,588,991
	1916	3,188,865	29,025	580,500	221,932	4,587,334	3,301,923	2,059,739
	1917	2,761,579	24,800	496,000	114,523	2,367,190	2,929,216	2,255,749

METALLIFEROUS MINES, ETC., FOR 1914, 1915, 1916, AND 1917.

LEAD.		COPPER.		ZINC.		TOTALS FOR DIVISIONS.				TOTALS FOR DISTRICTS.
Pounds.	Value.	Pounds.	Value.	Pounds.	Value.	1914.	1915.	1916.	1917.	1917.
	$		$		$	$	$	$	$	$
										525,641
						165,000				
							215,000			
								158,000		
									135,000	
						35,000				
							85,000			
								20,000		
									15,000	
323,482	11,322	6,000	816			92,807				
249,279	10,395	2,831,279	489,245				580,502			
224,451	13,853	1,646,072	447,764	168,616	18,345			594,157		
271,885	21,506	852,373	231,675	364,097	27,548				375,641	
										8,405,696
						342,670				
							395,086			
7,260	448							356,066		
									325,670	
		11,123,376	1,512,779			1,663,907				
30,462	1,270	21,915,481	3,786,995				4,004,002			
1,077	66	24,065,995	6,546,432					6,807,361		
		27,978,015	7,604,424						8,080,026	
										3,025,238
24,863,105	870,209					1,127,583				
26,582,050	1,108,472			180,000	20,250		1,370,876			
24,156,143	1,490,917	5,654	1,538	14,840,000	1,614,592			3,428,993		
13,996,640	1,107,134	9,679	2,631	20,715,080	1,567,304				2,818,429	
216,327	9,021			311,719	35,068		44,650			
571,244	35,257	3,400	925	210,000	22,848			77,231		
1,774,649	140,375	12,640	3,436	18,000	1,362				206,809	
										5,945,253
8,069,525	282,433			280,000	12,320	468,534				
3,436,184	143,289			678,940	76,381		358,846			
7,841,869	484,000			625,971	68,106			753,402		
6,395,350	505,872			918,601	69,501				749,014	
15,233,910	533,187			7,254,464	319,197	1,777,936				
14,925,345	622,387			8,684,572	977,014		2,455,462			
14,415,645	889,734			17,854,357	1,942,554			3,757,191		
11,808,019	934,014			18,789,573	1,421,619				3,553,055	
2,004,436	70,155	586,764	79,800	332,003	14,608	559,063				
967,775	40,356	30,240	5,225	3,127,209	351,811		593,677			
1,240,784	76,582	176,383	47,980	3,470,036	377,540			608,296		
2,605,666	206,108	50,946	13,847	982,309	74,322				383,144	
		3,779,830	514,057			3,449,210				
		4,651,681	803,811				3,826,574			
		4,200,745	1,142,686					3,907,836		
		1,730,083	470,238						1,194,783	
128,912	4,512					12,562				
89,041	3,713						13,924			
206,741	12,760							28,200		
395,321	31,270			33,279	2,518				65,257	
										4,455,657
1,678	59	16,428,959	2,234,339			4,171,744				
7,127	297	17,402,662	3,007,180				4,954,981			
14,922	921	17,626,623	4,794,794					6,534,971		
36,548	2,891	10,329,765	2,807,630						4,191,960	
						3,732				
		21,701	3,750				18,002			
		182,633	49,680					59,859		
10,697	846	87,326	23,735						37,559	
		14,525	1,975			5,294				
		295,164	51,004				63,998			
47,380	2,924	636,594	173,166					193,501		
12,690	1,004	700,199	190,314	27,564	2,085				226,138	
										70,125
						7,978				
							8,643			
								59,259		
									70,125	
										4,856,864
		13,070,245	1,777,553			1,907,041				
		9,770,197	1,688,290				1,772,926			
		16,835,265	4,579,529					4,719,191		
		17,256,534	4,690,326						4,856,864	
50,622,048	1,771,877	45,009,699	6,121,319	7,866,467	346,125	15,790,061				
46,503,590	1,939,200	56,918,405	9,835,500	12,982,440	1,460,524		20,762,149			
48,727,516	3,007,462	65,379,364	17,784,494	37,168,980	4,043,985			32,063,514		
37,307,455	2,351,020	59,007,565	16,038,256	41,848,513	3,166,259				27,284,474	27,284,474

TABLE X.—SHOWING MINERAL PRODUCTION OF BRITISH COLUMBIA.



PROGRESS OF MINING.

The gross value of the mineral production for 1917 was $37,010,392, a decrease from that of the year 1916 of $5,280,070, or 12.5 per cent., but an increase over that of the previous record year 1912 of $4,569,592, or 14 per cent. The gross value of the metallic minerals recovered in 1917 was $27,284,474, which represents a decrease from last year of $4,779,040, a percentage decrease of about 15 per cent.

The decrease in total value of the 1917 mineral production as compared with that of the previous year would appear at first sight to show a very serious decline in the mining industry; this condition, however, was not due to any decline in mining itself, but to the cumulative effect of several adverse influences acting on the mining industry as a whole. It must be remembered that the year 1916 was a record one of high metal prices and of demand for metals, which therefore made that year a banner one for mining, not only for British Columbia, but for the whole American continent. In comparing the 1917 production with any previous year excepting 1916, it is seen that the 1917 output easily exceeds any other; for instance, it is nearly $5,000,000 greater than the former record year of 1912.

The adverse influences which retarded mineral production in 1917 may be summarized as industrial troubles, reduced metal prices in the last quarter of the year, a very much lessened demand for lead and zinc for munition purposes, and the economic conditions which severely handicapped the mining of gold.

Industrial troubles in 1917 were more frequent and extensive than usual; in the early months of the year a protracted strike in the Crowsnest district not only cut down the output of coal and coke, but forced the copper and lead smelters to close for lack of fuel, and, as a direct cause, stopped mining in the most productive parts of the Province. These troubles were followed by the closing of the mines at Rossland for several months, with the consequent curtailment of gold production. Apparently in this case, although there was some disagreement between the miners and operating company, and a strike seemed imminent, the properties were closed down before such actually took place.

The great decrease in gold production this year is mainly due to the heavy falling-off in the Rossland output, which camp usually makes over one-half the total yearly output of the Province. Early in November labour troubles again occurred at the Trail smelter, which closed the whole plant until practically the end of the year; this in turn stopped productive mining during that time throughout East and West Kootenay.

Metal prices during the year 1917 were favourable to the stimulation of productive mining, as, while there were many fluctuations in price, the general averages were as a rule quite as good as in 1916. The average price of zinc for 1917 was considerably below that of the previous year, but to offset this both silver and lead were considerably higher, while copper was practically the same. During the last quarter of the year the market price of lead declined materially, as the high prices prevailing in the earlier months of the year had so stimulated production as to cause a surplus of lead in the market, with consequent lowering of price. Due to the curtailment of orders for lead by the Imperial Munitions Board, the Trail smelter was forced to decrease its output of lead as no Canadian market was available; a considerably larger production of lead could have therefore been made but for the inability to market it.

Details of the market prices of metals will be found under the discussion of each metal, but it may be noted here that the rise in silver from an average of 50 cents an ounce in 1915 to nearly 86 cents at the close of the year 1917 has proved very beneficial to the silver-lead mines of the Slocan.

The higher cost of labour and supplies—especially powder—has made the cost of new development very high, but in spite of this much work has been done.

Gold-mining also suffered from the increased costs of labour and supplies, with no corresponding increase in the value of the metal produced, thereby causing a smaller margin of profit, and, in many cases, making it unprofitable to mine gold.

But for these untoward circumstances the hope anticipated at the commencement of the year, that the mineral-output of the Province for 1917 would reach the $50,000,000 mark, would probably have been realized. Taken in the aggregate, our mineral production and development in the year 1917 and the future prospects of the industry are conditions for congratulation at this time.

The value of coal produced in 1917 shows an increase of $230,588 as compared with the previous year, but the coke production shows the large decrease of $646,920. The coal production in the Coast District was considerably greater than in 1916, but labour troubles materially decreased the output in the Crowsnest of both coal and coke; it is in this latter district that most of the coke production of the Province is made.

Had it not been that the Crowsnest Collieries, through a series of mishaps—accompanied by a serious shortage of labour due to the war, followed by a labour strike—were unable to make as large an output as expected and intended, the coal and coke production would have been much greater; but as it was, there resulted such a shortage of coke as to partially close the copper-smelters, and these in turn compelled the copper-mines to very much curtail their outputs.

The outputs from metal-mining and coal-mining are intimately related to one another, as any increase in production from the former causes an increased production from the latter for fuel for smelting, power, and transportation purposes. On the other hand, a stoppage of production of coal and coke immediately curtails the metalliferous production.

The following table shows the number of mines which shipped ore during the year 1917, the districts in which they are situated, and the tonnage produced in each district, together with the number of men employed, both above ground and underground.

In explanation of the table it should be said that, in its preparation, a mine employing twelve men for four months is credited in the table with four men for twelve months, so that the total given is less than the actual number of individuals who worked in the mines during the year.

TABLE SHOWING DISTRIBUTION OF SHIPPING MINES IN 1917.

	Tons of Ore shipped.	No. of Mines shipping.	No. of Mines shipping over 100 Tons in 1917.	MEN EMPLOYED IN THESE MINES.		
				Below.	Above.	Total.
CASSIAR DISTRICT:						
Atlin, Stikine, Queen Charlotte, and Portland Canal	4,455	7	3	32	19	51
Skeena	817,397	5	3	359	353	712
CARIBOO DISTRICT:						
Omineca	4,159	13	4	69	62	131
EAST KOOTENAY DISTRICT:						
Fort Steele	114,391	7	3	212	135	347
Windermere-Golden	2,354	9	4	31	13	44
WEST KOOTENAY DISTRICT:						
Ainsworth	82,481	17	8	183	148	331
Slocan and Slocan City	149,895	34	17	598	245	843
Nelson	10,738	15	8	112	93	205
Trail Creek	100,171	6	5	313	109	422
Revelstoke, Lardeau, and Trout Lake	534	13	1	52	20	72
BOUNDARY-YALE DISTRICT:						
Greenwood, Grand Forks, and Osoyoos	779,345	26	12	409	156	565
Similkameen, Nicola, and Vernon	1,384	4	2	38	18	56
Yale, Ashcroft, and Kamloops	8,254	9	2	64	49	113
LILLOOET DISTRICT	4,700	2	2	13	12	25
SOUTHERN COAST DISTRICT	681,321	26	13	697	662	1,359
Total	2,761,579	193	87	3,182	2,094	5,276

In the following table of the non-shipping mines the returns are necessarily incomplete, as they include only the mines reporting to the Department, and not the prospects and properties under preliminary development, which in the aggregate give employment to a large number of men.

TABLE SHOWING NON-SHIPPING MINES AND MEN EMPLOYED.

District.	Number of Mines.			Men employed.		
	Working.	Idle.	Total.	Below.	Above.	Total.
Coast and Cassiar	8	20	28	24	23	47
East Kootenay	2	3	5	3	10	13
Ainsworth	8	10	18	21	16	37
Slocan	9	23	32	29	15	44
Nelson	13	7	20	22	13	35
Trail Creek	....	7	7	....	.....	.....
Revelstoke-Lardeau	1	4	5	.....	9	9
Boundary-Yale	4	28	32	6	16	22
Lillooet	3	2	5	3	2	5
Total	48	104	152	108	104	212

SUMMARY OF STATISTICAL TABLES.

Referring to the preceding tables of the mineral production of the Province, the following is a summary of their contents:—

TABLE I. shows the total gross value of each mineral product mined in the Province up to the end of 1917, aggregating $595,571,107. From this table it will be seen that coal-mining has produced more than any other separate class of mining, a total of $174,313,658; followed next in importance by copper at $130,597,620, and next in order is lode gold at $93,717,974, with placer gold in fourth place at $75,116,103.

TABLE II. shows the value of the total production of the mines of the Province for each year from 1893 to 1917 (inclusive), during which period the output increased tenfold, and reached a gross production for the year 1917 of $37,010,392.

The value of the total mineral production of the Province up to the end of 1917 was $595,571,107.

TABLE III. gives the quantities in the customary units of measure, and the values, of the various metals or minerals which go to make up the total of the mineral production of the Province, and also, for the purposes of comparison, similar data for the two preceding years.

The table shows that there has been this year a decrease in the production of placer gold of $84,500, and a decrease in the output of lode gold of $2,220,144, making a total decrease of $2,304,644 in the total production of the metal.

The amount of silver produced this year was 2,929,216 oz., having a gross value of $2,265,749, a decrease in the number of ounces of 372,707. There was a large decrease in the output of Ainsworth Division and small increases from Slocan and Skeena Divisions; all other districts made smaller productions than in 1917. The value of the silver production in 1917 was, however, $206,010 greater than in 1916, due to the prevailing high market price of silver in 1917.

The table shows an output of lead in 1917 amounting to 37,307,465 lb., valued at $2,951,020, which is a decrease from the production of the preceding year of 11,420,051 lb. of lead, but only a decrease in value of $56,442, due to the advance in price of the metal.

The production of copper this year was 59,007,565 lb., valued at $16,038,256, a decrease in amount of 6,371,799 lb., or about 9.8 per cent. The value of the product was less than that of the preceding year by $1,746,238—a decrease of nearly 10 per cent.

TABLE IV. shows the proportions of the total mineral productions made in each of the various districts into which the Province is divided.

It will be noted that this year the Southern Coast District has again the honour of first place on the list, followed, in order of importance, by the Cassiar, West Kootenay, East Kootenay, and Boundary Districts. The Coast and East Kootenay Districts owe a considerable proportion of their output to the coal-mines situated within their limits, whereas, in the other districts, the production is chiefly from metal-mining.

The Coast District also derives a fair proportion of its production from "Miscellaneous products," such as building materials, etc., due to the larger cities therein; this year this amounted to $1,052,840, as shown in Table V.

TABLE V. is a new table introduced six years ago, and is an endeavour to show in some detail the production of those products, such as building materials, previously summarized under "Miscellaneous products," and which amounts this year to $1,241,575. Much difficulty has been found in obtaining reliable figures regarding these products, and in many cases they have had to be estimated; but, while the figures are not as complete as desired, they are at least approximate, and show what an important branch of mineral production this has become, despite the falling-off due to the war and depressed financial conditions.

TABLE VI. shows the statistical record of the placer mines of the Province from 1858 to 1917, and shows a total production of $75,116,103. The output for 1917 was $496,000, a decrease, as compared with the previous year, of 14.5 per cent.

TABLE VII. relates entirely to the lode mines of the Province, and shows the quantities and values of the various metals produced each year since the beginning, in 1887, of such mining in the Province. The gross value of the product of these mines to date is $317,684,517; this figure includes the zinc production of 1909 and all subsequent years.

Lately a new column was made in this table in which to record the zinc production, and the output since 1909 has been recorded therein. In former years the zinc production was small and was listed as miscellaneous material.

TABLE VIII. contains the statistics of production of the coal-mines of the Province. The total amount of coal produced to the end of 1917 was 47,044,584 tons (of 2,240 lb.), worth $152,965,253. Of this, there was produced in 1917 2,149,975 tons valued at $7,524,913, an increase of 65,882 tons in quantity and of $230,588 in value compared with the preceding year. In these figures of coal production the coal used in making coke is not included, as such coal is accounted for in the figures of output of coke. The amount of coal used in making coke in 1917 was 248,740 tons, from which was made 159,905 tons of coke, having a value of $959,430, a decrease in amount from the preceding year of 107,820 tons, or about 40 per cent., with a decrease in value of $646,920. The total value of the output of the collieries of the Province in 1916 was $8,484,343.

The average selling prices taken this year in the calculation of value of product are the same as those used last year; that for coal being $3.50 and for coke being $6 a ton of 2,240 lb. The prices used in calculations prior to 1907 were $3 and $5 respectively.

More detailed statistics as to the coal production of the Province and of the separate districts are given elsewhere in this Report.

TABLE IX. gives the details of production of metalliferous mines of the Province for the years 1914, 1915, 1916, and 1917, and the districts in which such productions were made, showing the tonnage of ore mined in each district, with its metallic contents and its market value.

The total tonnage of ore mined in the Province during the year 1917 was 2,761,579 tons, having a gross value of $26,788,474, and, with the placer gold, a total value of $27,284,474.

The following table shows the percentages of such tonnage derived from the various districts of the Province:—

Cassiar and Omineca District	29.9
Boundary-Yale District	28.6
Southern Coast District	24.6
Slocan Mining Division	5.4
East Kootenay District	4.2
Trail Creek Mining Division	3.7
Ainsworth Mining Division	3.0
Nelson Mining Division	0.4
Other Mining Divisions	0.2
	100.0

In reports previous to 1910 there has been included in Table IX. the "Miscellaneous products," and in 1910 these were shown distributed to the various districts; the great increase of these products in the past few years has rendered it advisable that this table be reserved exclusively for metalliferous products, and so a new table (No. V.) was introduced in 1911, giving in some detail the output of these miscellaneous products.

In making comparisons of this table with similar tables in previous reports, the fact that "Miscellaneous" has been removed will have to be borne in mind.

Table X. presents in graphic form the facts shown in figures in the tables, and demonstrates to the eye the rapid growth of lode-mining in the Province, and also the fluctuations to which it has been subject.

It will be seen that, although coal-mining has been a constantly increasing industry during this whole period of twenty-six years, lode-mining did not begin practically, until 1894, since when it has risen with remarkable rapidity, though not without interruption, until it reached, in 1906, the $17,500,000 line. The total mineral production in 1910 reached the $26,000,000 line, in 1912 it reached the $32,000,000 line, in 1916 the $42,000,000 line, while this year it is just above the $37,000,000 line.

GOLD.

Placer Gold.

The production of placer gold during the past year was worth about $496,000 as nearly as can be ascertained; great difficulty is found in obtaining reliable figures, since the work is, in many cases, carried out by individuals or unorganized groups of men who keep no books, frequently paying wages, or for supplies, in gold-dust, which, being readily transported, is scattered, and the tax imposed thereon by law is thus evaded. This year's output shows a decrease, as compared with 1916, of $84,500.

The production of placer gold is nearly all from the Atlin and Cariboo Districts, about 95 per cent. of the total coming from these two sections.

In hydraulic placer-mining, from which about 90 per cent. of the placer gold obtained in British Columbia is derived, it has been pretty well demonstrated that the gold-output is in direct proportion to the number of days in which water was available for piping.

In the Atlin Division water conditions were normal, so far as is known, but the shortage of labour handicapped operations. So many men have left the district for active service in the war that not only were the larger companies short of labour, but also the number of individuals mining in a small way was materially less than in former years.

In the Cariboo District water conditions were good in the early part of the season owing to the heavy snowfall of the previous winter, which melted off gradually. This was followed by a dry summer, with some compensation by reason of heavy fall rains. The output for the Cariboo and Quesnel Divisions was a little less than in 1916.

Gold-mining in all forms has suffered by the war, due to the fact that the cost of labour and supplies has materially increased, while the price of the product remains standard; hence operating costs are higher and profits lower.

Due to the greatly enhanced market price of the base metals, such mines operating on a sliding scale of wages, regulated by the prices of metals, have been paying abnormally high wages, which has drawn miners away from gold-mining, both placer and lode.

In addition to the increased cost of all supplies, etc., the war conditions have also rendered it almost impossible to obtain new equipment at any price. There has therefore been less inducement for capital to enter into new placer-mining enterprises, either hydraulic or dredging. The development of new placer enterprises in the Cariboo and Atlin fields and elsewhere in the Province can therefore hardly be expected until the world war is over.

Complete news has not been received from the Omineca District, where considerable work has been going on, most of which, however, was of a preparatory nature, and it is not expected that any great output was made this year, probably not more than about $12,000 all told.

In the Liard-Stikine District the Boulder Creek Hydraulic Mining Company did not have a successful season on Thibert creek, as in the fall a slide carried away the flume, thus preventing the fall clean-up. Ball and Finn and Mitchell Bros., working in the same vicinity, made small outputs.

Four different partnerships were at work on Dease creek, with success enough to at least pay wages.

This year some gold was taken out of the Tahltan river by Indians and others working in the river-bed.

It is to be noted this year that two or three parties were working down the Liard river, at McDame creek, and on Rosella creek, a section that has been practically abandoned of late years.

Considerable work in connection with placer-mining was done in the Similkameen District, although the actual production was small. About $1,700 worth of crude platinum was recovered and has been included in the placer output.

Vernon District also yielded some gold from hydraulic operations in Siwash creek.

Yale Mining Division made an unusually small output, considering the very low water in the rivers exposed the bars.

The Fort Steele Mining Division made a smaller output than last year.

Gold from Lode-mining.

The value of the gold produced from lode-mining in the Province during the year 1917 was $2,367,190, a decrease, as compared with the previous year, of $2,220,144, or about 48.4 per cent. This smaller production of lode gold is due to decreased tonnages of ore mined in the Rossland and Boundary Districts and to slightly lower values in the gold contents of the Boundary ore.

The decreased tonnages in both these camps, which together produced last year about 93 per cent. of the total lode-gold output of the Province, was partly due to a shortage of coke for smelting owing to labour troubles at the coal-mines.

In the Rossland camp labour troubles at the smelter and the shutting-down of the mines for nearly half the year, reduced the output of this camp from nearly 130,000 oz. in 1916 to 33,290 oz. in 1917, or about 25 per cent. of the camp's normal output.

Nelson Division also made a much smaller output than in the previous year owing to no production having been made from the Sheep Creek camp.

A considerable increase from the Skeena District is recorded, which is accounted for by the initial production from the Surf Inlet mine of the Belmont Canadian Mines, Limited, and the increased tonnage of ore carrying low gold values treated at the Anyox smelter of the Granby Consolidated Company. The first production from the Surf Inlet mine since its acquisition by the present owning company is interesting and important, an output of about 3,000 oz. of gold being made, the result of four months' operation. The property is equipped with a 250-ton mill which commenced milling in August. A considerable gold production in the future from this property seems assured.

It is encouraging to note an increased output from Lillooet District, which produced 3,092 oz., as compared with 31 oz. in 1915 and 2,625 oz. in 1916.

The only large stamp-mill in operation in the Province is the *Nickel Plate* mine at Hedley, in the Osoyoos Mining Division, which this past year milled 71,207 tons of ore having a value of over $740,000. There are smaller stamp-mills operating at the *Queen*, *Perrier*, *Granite*, and other mines in the Nelson Division; and, in addition, there are stamp-mills at the *Jewel* mine, Greenwood; *Coronation*, *Pioneer*, and *Lorne* mines, Lillooet; and the *Engineer* mine, Atlin, which operated during the year.

The following are the values of the gold product of the three most important camps: Rossland, $688,104; Boundary, $1,210,104; and Skeena, $202,669. This year about 65 per cent. of the gold production of the Province was obtained from the smelting of copper-bearing ores, the remainder mainly from stamp-milling.

The Boundary-Yale District shows a decrease of 16,220 oz. as compared with 1916. The Granby Company's mines show a decrease of about 14,500 oz. and the British Columbia Copper Company a decrease of about 2,200 oz. as compared with 1916. The *Union* also shows a decrease. The *Carmi* did not operate and little was done by the *Dividend-Lakeview*.

There was a reduction of about 1,586 oz. in the Nelson District, due mainly to the *Queen*, on Sheep creek, not having been operated during the year. This mine is at present closed and the future plans of the company are not known.

The *Granite* mine made a decreased production. The *Yankee Girl* mine, near Ymir, recommenced shipments to the Greenwood smelter after not shipping for a period of nearly three years, during which time low-level development was carried on.

The Coast production shows a small increase, due to increased production from the *Britannia* and *Marble Bay* mines.

The Omineca production comes almost entirely from the *Rocher Déboulé* mine, near Hazelton, which is a new property that only commenced shipping two years ago. The ore is a high-grade copper ore carrying low gold and silver values.

The gold production of the various districts was as follows:—

	Oz.
Boundary-Yale	60,010
Rossland	33,290
Skeena	9,805
Coast (Southern)	3,793
Lillooet	3,092
Nelson	2,521
Atlin	1,000
Omineca	931
All others	81
Total	114,523

SILVER.

The total amount of silver produced in the Province during the year 1917 was 2,929,216 oz., valued at $2,265,749, a decrease in amount, as compared with the previous year, of 372,707 oz.; but, owing to the increase in the market value of this metal, the value of the silver-output in 1917 was $206,010 greater than in 1916.

Unlike the other metals, silver declined in price at first owing to the effect of the war on the market. The decline in the price of silver, followed by a sudden rise in value, is best seen by comparing the average yearly prices for the last five years, which were:—

1913	59.8 cents an oz.
1914	54.8 „
1915	49.7 „
1916	65.7 „
1917	81.4 „

The increase in the market price of silver which commenced in the last months of 1915 continued throughout 1916, and on into 1917, steadily rising until in September the high monthly average of 100.74 cents an ounce was reached. Since then the price has dropped somewhat, the average for December being 85.96 cents.

The Slocan District—including the Ainsworth, Slocan, Slocan City, and Trout Lake Mining Divisions—produced about 60 per cent. of the total Provincial output of silver this year, and the Fort Steele Mining Division about 6 per cent., all from argentiferous galena. The remainder is chiefly derived from the smelting of copper-ores carrying silver.

The following table shows the silver production from the different Mining Divisions:—

Slocan and Slocan City M.D. produced	1,547,576 oz.	silver=	52.8 per cent. of total.
Skeena M.D. produced	343,805 „		11.7 „
Boundary-Yale District produced	227,208 „		7.8 „
Ainsworth M.D. produced	224,461 „		7.7 „
Fort Steele M.D. produced	180,168 „		6.1 „
Coast District produced	112,652 „		3.8 „
Omineca M.D. produced	82,311 „		2.8 „
Windermere-Golden M.D. produced	79,685 „		2.7 „
Trail Creek M.D. produced	47,112 „		1.6 „
Nelson M.D. produced	46,229 „		1.6 „
All others produced	38,009 „		1.4 „
	2,929,216		100.0

The Slocan Mining Division (with which is included Slocan City Division) is again far in the lead of all other districts in silver producton, nearly 53 per cent. of the total being credited

to the Slocan. The figures for this year show an increased production for the Slocan, as compared with last year, of 67,005 oz., which shows the beneficial influence of the high price of silver. The Slocan output would have been still larger but for the curtailment of ore shipments at different times throughout the year, caused by the inability of the Trail smelter to handle the ore.

The largest producer in the Slocan was again the *Standard*, with an output of about 500,000 oz., followed by *Surprise* and *Queen Bess*, each about 200,000 oz. The total number of shipping mines in the district was about thirty-three.

Ainsworth and Fort Steele Divisions both show decreases as compared with the previous year.

Nearly 50 per cent. of the silver-output from the Boundary District comes from the Granby Company's mines at Phoenix. Other mines contributing are the *Mother Lode*, *Sally*, and *Union*.

The silver production from Trail Creek comes from the smelting of the gold-copper ores of Rossland camp, which carry about ½ oz. of silver to the ton.

The Skeena production comes almost entirely from the Granby Company's *Hidden Creek* mine, at Anyox. The Omineca production, which comes mainly from the *Silver Standard*, was a little lower than in 1916.

The Coast production of silver comes from the smelting of copper ores carrying low values in the precious metals.

About 75 per cent. of the total Provincial output of silver comes from the treatment of silver-lead-zinc ores and the balance mainly from the smelting of gold-copper ores carrying silver.

LEAD.

The lead production of the Province for the year 1917 was 37,307,465 lb. of lead having a market value of $2,951,020, showing, as compared with the previous year, a decrease in amount of 11,420,051 lb. of lead, or 23.4 per cent.

This amount of lead represents the amount of metallic lead actually received and paid for by the smelters.

Instead of taking account of "loss in slags," we have followed, as has been our habit, the practice of the smelters of deducting 10 per cent. from the market price of the metal, in calculating the value.

The average market price of this metal for the year 1917 was considerably higher than for the previous year, being 8.787 cents a pound as compared with 6.858 cents.

The lead production is this year, as usual, derived chiefly from the Slocan and Fort Steele Mining Divisions, as is shown in the following table:—

Fort Steele M.D. produced	13,996,640 lb. lead	= 37.5	per cent. of total.
Slocan and Slocan City M.D. produced	11,808,019 „	31.7	„
Ainsworth M.D. produced	6,395,350 „	17.1	„
Nelson-Arrow Lake M.D. produced	2,605,666 „	7.0	„
Windermere-Golden M.D. produced	1,774,649 „	4.7	„
Revelstoke, Trout Lake, and Lardeau M.D. produced	395,321 „	1.1	„
Omineca M.D. produced	271,885 „	0.7	„
All others produced	59,935 „	0.2	„
	37,307,465	100.0	

The Fort Steele production comes almost entirely from the *Sullivan* mine, and during 1917 lead-ore shipments from this mine were greatly curtailed. This lessened output, which amounts to about 42 per cent. decrease as compared with 1916, was partly due to industrial troubles at the Trail smelter, partly to excess of custom lead ore at the smelter, and partly owing to the fact that the efforts at the *Sullivan* were concentrated on getting out zinc ore.

The Slocan production shows a small decrease from the previous year, which is accounted for by the suspension of ore shipments during part of the year through inability to get the ore smelted. The heaviest contributor was again the *Standard*—which, however, did not make quite

half of the previous year's production—followed by the *Surprise*, *Galena Farm*, and *Queen Bess*, all with a production approximating 2,000,000 lb.

The production from Ainsworth shows a decrease of about 1,500,000 lb. as compared with 1916. The *Bluebell* is the heaviest shipper with a production of about 3,500,000 lb., followed by the *Highland* with 1,000,000 lb. and the *Florence* with 900,000 lb. Nearly twenty shipping mines are listed in this Division.

The lead production of Nelson Division was 2,601,685 lb., as compared with 1,240,784 lb. in 1916, the increase being due to a larger production from the *Emerald* mine, which makes practically all the output of this Division.

The Windermere and Golden Divisions together produced about three times as much lead as in 1916, due to a largely increased production from the *Paradise* mine; the output of this mine was approximately 1,200,000 lb. Other shippers were the *Couverapee*, *Lead Queen*, and *Monarch*.

The Omineca lead production for 1917 was a little larger than that of 1916. The *Silver Standard* is the largest producer, with half a dozen small shippers. The lead-output from this Division should be larger in the year 1918.

COPPER.

The amount of copper produced during the year 1917 shows somewhat of a decrease as compared with the previous year, but considering the industrial troubles of 1917 the showing made is very satisfactory. A production of 59,007,565 lb., worth $16,038,256, is recorded, as compared with 65,379,364 lb., worth $17,784,494, in the preceding year. The 1917 output, however, is higher than any other year excepting 1916.

The market price of copper was subject to considerable fluctuations during the year. The New York average price for January was 28.673 cents a pound, and rose in February to 31.750 cents, thereafter gradually declining to 25.073 in September. On September 21st, 1917, the War Industries Board of the United States, with the sanction of the President, officially fixed the market price of copper at 23.5 cents a pound. This price has ruled ever since and apparently is satisfactory, as, according to the leading authorities on the copper market, the supply at present just about equals the demand. The average price of copper for the year 1917 was 27.18 cents, as compared with 27.202 in 1916.

The copper production from the several districts was as follows:—

	Lb.
Skeena Division	27,978,015
Southern Coast District	17,256,534
Boundary-Yale District	11,117,290
Trail Creek Division	1,730,088
Omineca Division	852,373
All other districts	73,265
Total	59,007,565

The *Hidden Creek* mines and the smelter at Anyox of the Granby Consolidated Mining and Smelting Company were operated continuously throughout the year, even although at times some difficulty was experienced from shortage of coke and labour. A larger tonnage was treated than in 1916, amounting to approximately 784,000 tons of ore, and in addition 38,000 tons of quartz flux and 53,000 tons of limestone flux. With the increased tonnage handled there was a corresponding increase in the output of copper, 27,661,301 lb. (recovered copper), being produced, as compared with 23,890,896 lb. in 1916.

In the Boundary District the Granby Company's mines at Phoenix and smelter at Grand Forks were not operated continuously nor to full capacity throughout the year owing to the strike in the Crowsnest coalfield shutting off the supply of coke. Only a little over half the 1916 tonnage was handled, and, as the grade of ore remained practically the same, the copper-output shows a proportionate decrease. An output of 6,858,718 lb. was made, as compared with 13,795,151 lb. in 1916. Similarly, the British Columbia Copper Company (now absorbed by the

Canada Copper Corporation) treated a smaller tonnage during the past year than in 1916, with consequent decrease in copper-output.

The *Britannia* mine had a very successful year, the tonnage of ore mined and milled being 662,000 tons, containing 15,780,830 lb. copper, 86,925 oz. silver, and 980 oz. gold. The ore reserves at this mine are large—claimed to be about 17,000,000 tons—and it is expected the yearly tonnage treated will increase still further, as the ultimate plans of the company are to have milling capacity to handle 4,000 tons a day.

The copper-mines on Texada island made about the same output as in 1916; the most important producer was again the *Marble Bay*.

Several small shipments of copper ore were made from Vancouver island and along the Coast. The high price of copper has stimulated the work of developing copper-showings on the Coast, and while this has not resulted in any great quantity of ore being shipped in 1917, it is likely that a considerable increase of production will take place in 1918.

The encouraging feature as regards copper in the Southern Coast District is the very satisfactory results being obtained from serious development, which as yet has not found expression in actual production, but argues well for substantial output in the near future. Development, to be successful, would seem to be so extensive as to be out of reach of any but strong companies.

The production of copper from Nelson Division during 1917 was very low, amounting to about 50,946 lb., mainly from the *Eureka* mine.

The Omineca Division produced less copper in 1917 than in 1916, due mainly to suspension of shipments from the *Rocher Déboulé* mine during the early months of the year.

During the last three years copper-mining has attained the position of being the most important form of mining in the Province, and from all indications it should maintain this prominent place for years to come, as last year the value of the copper mined exceeded the total value of all other metalliferous minerals mined in the Province, and was also nearly double the combined value of coal and coke production. It formed about 60 per cent. of the total value of the metalliferous mines and 43 per cent. of the total mineral production. In the working of the large, low-grade copper-deposits and the subsequent smelting of the ores produced, a great number of men are employed and a large proportion of the money value is retained in the country in the payment of wages and purchase of supplies.

All the copper ores carry small amounts of the precious metals, and therefore any increase in the copper production also increases the output of gold and silver. The high price of copper during the past year has stimulated prospecting and the development of copper claims, and there is no doubt that the Provincial output will steadily grow in future years.

The following table shows the production of the various districts for the years 1914, 1915, 1916, and 1917:—

	1914. Lb.	1915. Lb.	1916. Lb.	1917. Lb.
Boundary District	16,428,959	17,402,662	17,626,623	10,329,765
Rossland District	3,779,830	4,651,681	4,200,745	1,730,088
Coast, Omineca, and Cassiar Districts	24,199,621	34,516,957	42,547,332	46,086,922
Yale-Kamloops District	14,525	295,164	819,227	700,199
Nelson and other Districts	586,764	51,941	185,437	160,591
Totals	45,009,699	56,918,405	65,379,364	59,007,565

ZINC.

The total quantity of zinc produced in 1917 was 41,848,513 lb., valued at $3,166,259, the average New York price, less 15 per cent., being taken as the basis of valuation.

This shows an increase, as compared with the year 1916, of 4,679,533 lb., or 12.6 per cent., in amount, but, owing to the lower average market price, a decrease in value of $877,726, or 21.7 per cent.

The average yearly price of spelter in the New York market for the last five years is shown in the following table:—

Year.	Price.
1913	5.65 cents a pound.
1914	5.21 „
1915	13.23 „
1916	12.804 „
1917	8.901 „

The high market price of zinc which prevailed during 1915 and 1916, thereby greatly stimulating production everywhere, did not continue in 1917. The average price for the month of January was 9.619 cents a pound and in March 10.3 cents; thereafter a steady decline in price set in until an average for December of 7.685 cents was reached.

The way in which the increased price of zinc during recents years has stimulated the production of this metal in the Province is shown in the following table:—

	Lb.	Value.
1913	6,758,768	$ 324,421
1914	7,866,467	346,125
1915	12,982,440	1,460,524
1916	37,168,980	4,043,985
1917	41,848,513	3,166,259

The following table shows the districts from which the zinc production of the Province for 1917 is made:—

	Lb.
Fort Steele	20,715,090
Slocan	18,789,573
Nelson	982,309
Ainsworth	918,601
Omineca	364,097
Others	78,843
Total	41,848,513

These figures show, as compared with the year 1916, an increase of nearly 6,000,000 lb. from Fort Steele, an increase from Slocan of about 1,000,000 lb., increases from Ainsworth and Omineca, and a decrease of over 2,000,000 lb. from Nelson.

In the Slocan District the heaviest shipper was the *Standard* mine, which is credited with about 10,700,000 lb. of zinc, followed by the *Lucky Jim* and the *Surprise*, each with about 2,000,000 lb.; then the *Galena Farm*, *Van-Roi*, and *Slocan Star*.

The Fort Steele production comes entirely from the *Sullivan* mine; the ore is shipped to the Trail electrolytic refinery.

The Nelson production is a zinc-carbonate ore shipped to United States smelters for treatment, and comes from the *H.B.* group of mines, near Salmo.

The Ainsworth production comes mainly from the *Bell* and *Whitewater* mines, both credited with a production of about 400,000 lb.

The Omineca production comes from the *Silver Standard* mine and consists of hand-sorted ore shipped to United States smelters, carrying about 60 oz. silver to the ton and 40 per cent. zinc.

OTHER MINERALS.

Since the commencement of the war there has been a steadily growing demand for minerals and metals which are but little known by the general public. This was caused by the curtailing of former sources of supply and the general interruption of the world's markets. Many of these minerals rose to high prices, due to scarcity and to the fact that modern war materials require for their manufacture many different metals and mineral products. The enormous output of munitions occasioned the great demand, and consequent rise in price, of copper, lead, and zinc, but many other less well-known metals are also required in comparatively great quantities.

Some of these minerals are known to exist in British Columbia, and during the last two years attempts in a small way have been made to develop these deposits. Other mineral products, not directly used in war materials, but in demand owing to supplies having formerly come from enemy countries, have been prospected for in the Province.

The following paragraphs give brief details about these minerals:—

Iron Ore. The past year has seen a very great demand for iron and steel on the Pacific Coast, the normal demand having been greatly increased by the need for steel in ship-building and munitions-work, while the usual outside sources have been monopolized by war needs in other parts of the world, and the high freight rates have made the lack of local production more pronounced. Consequently, it has been strongly advocated in many quarters that the conditions are favourable for the establishment of an iron-smelting plant somewhere on the British Columbia Coast. So far nothing definite has materialized, although there is apparently a prospect of such a plant being established. As is well known, there is on the Coast, in the aggregate, an adequate supply of magnetite-iron ore, quite sufficiently free from impurities as to be within the "Bessemer limit," to supply ore for such a plant.

The magnetite-deposits of the Coast have therefore had some attention bestowed on them during the past year; this, however, was mainly confined to examination, with but little development. Bulletin No. 3, 1917, of the British Columbia Mines Department describes the more important magnetite-deposits of the Coast.

Platinum. A small quantity of crude platinum is recovered each year from placer-mining operations in the Similkameen District. The price of platinum has advanced greatly in the last two years owing to heavy demands and a shortage of supply. This has occasioned considerable interest in the possibility of more extensive placer-mining for platinum (and associated gold) in the Similkameen District. The occurrence of small quantities of platinum in-place in the peridotite rocks of the upper Tulameen river has been known of for years; and now that refined platinum has reached a price of over $100 an ounce, prospecting has been resumed to see if any zones in this formation can be found which would pay to work for the platinum content.

Molybdenum. Considerable interest has been evinced during the past year in molybdenite-deposits owing to the high price of this mineral, caused by demands for war purposes. This mineral, which is a sulphide of molybdenum, is used in the manufacture of special high-grade steel for guns. The actual Provincial output of molybdenite during the year was 152 tons of ore, containing about 12,000 lb. of molybdenite. Nearly all this production was from the *Molly* group, on Lost creek, in the Nelson Mining Division. The market requirements are such that a molybdenite ore must be concentrated up to 85 or 90 per cent. molybdenite (MoS_2) before it is marketable. The Lost Creek property has several thousand tons of from 2- to 4-per-cent. ore, so that, with a suitable mill, a steady production could be maintained.

Another property, on Alice arm, in the Skeena Mining Division, controlled by J. D. Ross, of Seattle, is reported to have a large showing of molybdenite. A mill was erected on the property in 1916 and about 383 tons of 2-per-cent. ore was treated. Other prospects in the Nelson, Kamloops, and Lillooet Mining Divisions showing some molybdenite have been investigated, but as yet none of them have assumed any great importance.

Molybdenite ore, concentrated so as to contain 85 to 90 per cent. of that mineral, is now worth in Canada about $2,000 a ton.

Regulations have now been made by the Dominion Government allowing the export of molybdenite ore to the United States. The price in the States has been about double the Canadian price, so that if this high price continues a further incentive is provided to mining the molybdenite ores of the Province.

At the *Molly*, the *Index*, and at Alice arm there are considerable tonnages of low-grade ore, and if these mines were equipped with small but suitable concentrating-mills a regular production could be maintained.

Manganese. Manganese is used in steel-making and during the last year has been in demand owing to increases in steel production. Near Kaslo a manganese-deposit has been developed during the past year and there is said to be a considerable tonnage ready for shipment. The Dominion Government has recently modified the embargo restrictions on shipping manganese ore to the United States, so that the Kaslo property will probably make a production during 1918.

Tungsten. Tungsten is also used in the making of special steels, and the market price of tungsten ores, although fluctuating, is now at a good figure. So far as is known, no tungsten ore has been produced in shipping quantities from the Province, but tungsten minerals, generally in association with other minerals, have been noted in a few localities. A deposit of scheelite (calcium tungstate) has been known of for many years situated near Barkerville, Cariboo District, and it is probable this will be developed in the near future.

Antimony. Antimony is another metal which at first advanced greatly in price owing to war demands, but a largely increased production from China soon brought the price back to normal again. Its principal use in war material is to harden the lead bullets used in shrapnel. Antimony usually occurs in nature as stibnite, the sulphide of antimony, and is a common mineral in British Columbia, occurring in association with lead and zinc ores. It does not, however, as a rule, occur in large quantities, but attempts are now being made in a few places to sort it out from its associated minerals. Twenty-seven tons of antimony ore was shipped from the *Alps-Alutras* property, situated on a fork of Carpenter creek, in the Slocan Mining Division, in 1916; this ore carried from 50 to 60 per cent. antimony. Reports have been heard of small test shipments from other claims.

Chromite. At the present time there is a considerable demand for chromite, which is used for various purposes, including steel-making. Small deposits of chromite occur in the Tulameen District, but so far have been considered too small to be developed. A deposit near Cascade, Grand Forks Mining Division, is now being developed and other occurrences are being prospected.

Non-metallic Minerals. The following minerals are at the present time in demand, and search for all of them is being carried on in British Columbia: Bauxite, fluorite, magnesite, graphite, China clay, feldspar, mica, phosphate, strontianite, epsomite, talc, fuller's earth, potash, soda, pyrite for the sulphur in it, etc. Although most of the above minerals may not be needed in large quantities, yet the present high prices of the products is an incentive to intensive prospecting.

One hundred and five tons of talc was shipped from the Lillooet District in 1917 and an increasing production may be expected. Several hundred tons of epsomite (magnesium sulphate), which is used in the drug trade, was shipped from Osoyoos Division.

For the first time in the history of the Province there was a production of arsenic; this was made from the *Nickel Plate* mine of the Hedley Gold Mining Company and amounted to $20,000. The arsenic occurs as arsenical iron pyrites in the concentrates shipped by this company to the Tacoma smelter. These concentrates have been going to the smelter for years, but until the recent installation of an arsenic-burner the arsenic content was not recovered.

The production of miscellaneous minerals produced in British Columbia in 1917 was valued at $37,029.

COAL.

The gross production of coal in 1917 was 2,398,715 long tons, of which 248,740 tons was made into coke, leaving the net production at 2,149,975 tons. These figures show a decrease, as compared with 1916, of 86,865 tons gross, but an increase of 65,882 tons net. The quantity of coke made was 159,905 tons, which is a decrease of 107,820 tons as compared with 1916. For purposes of comparison the following table is shown:—

	1912.	1913.	1914.	1915.	1916.	1917.
Coal, gross.....tons, 2,240 lb..	3,025,709	2,570,760	2,166,428	1,972,580	2,485,580	2,398,715
Less made into coke "	396,905	433,277	355,461	361,451	401,487	248,740
Coal, net..... "	2,628,804	2,137,483	1,810,967	1,611,129	2,084,093	2,149,975
Coke made..... "	264,333	286,045	234,577	245,871	267,725	159,905

Summarizing the Provincial production of coal, the following table shows the output:—

	1914.	1915.	1916.	1917.
Vancouver Island mines.....tons, 2,240 lb.	1,072,314	1,020,942	1,492,761	1,695,721
Nicola and Similkameen mines..... "	138,931	99,066	110,549	151,243
Crowsnest mines..... "	955,183	852,572	882,270	551,751
Total quantity of coal mined..... "	2,166,428	1,972,580	2,485,580	2,398,715
Less made into coke..... "	355,461	361,451	401,487	248,740
Net quantity of coal produced..... "	1,810,967	1,611,129	2,084,093	2,149,975

In addition to the above net production of coal, there was made the coke production shown in the following table:—

	1914.	1915.	1916.	1917.
Vancouver Island collieries.....tons, 2,240 lb.	*Nil*	5,450	27,604	30.406
Nicola and Similkameen collieries... "	*Nil*	*Nil*	*Nil*	*Nil*
Crowsnest District collieries..... "	234,577	240,421	240,121	129,499
Total coke production.. ... "	234,577	245,871	267,725	159,905

As will be seen from the above figures, the net coal production this year is 65,882 tons more than it was in 1916, and greater than it has been since 1912.

This output would have been considerably greater had not the Crowsnest Collieries met with a series of misfortunes during the year that interfered with production, and in addition to this there was a serious shortage of labour—partly caused by the heavy enlistment of the younger men—and in the early part of the year there were labour troubles. All these contributed to occasion a shortage of both coal and coke, when the demand was most keen.

Coke.—The production of coke in 1917 was 159,905 tons (2,240 lb.), which is 107,820 tons less than the preceding year. Of this gross coke production, 129,499 tons was made by the Crow's Nest Pass Coal Company in East Kootenay, and the remaining 30,406 tons was made by the Canadian Collieries at Comox, V.I.

The greater part of the gross Provincial production is still being mined by three companies—the Crow's Nest Pass Coal Company of East Kootenay, the Canadian Collieries, and the Western Fuel Company of Vancouver island, which mined, collectively, 79.5 per cent. of the gross output, their respective production representing 18.8 per cent., 33.2 per cent., and 27.5 per cent. of such total.

Of the other collieries: In the Coast District, on Vancouver island, the Pacific Coast Coal Mines, Limited, produced 150,538 tons, the British Columbia Coal Mining Company 61,586 tons, and the Nanoose Collieries, Limited, 27,822 tons; and in the Nicola Valley section of the district, the Middlesboro Colliery Company mined 83,458 tons, the Inland Coal and Coke Company 7,296 tons, the Princeton Coal and Land Company 46,926 tons, and the Pacific Coast Colliery Company some 206 tons of coal.

In the East Kootenay District, in addition to the Crow's Nest Pass Coal Company, which produced 450,686 tons, the Corbin Coal and Coke Company produced 101,065 tons.

In addition to those companies actually shipping, several other companies have been installing plant and have approached the shipping stage, mention of which will be made elsewhere in this report.

The collieries of the Coast District, including the Nicola-Princeton fields, are to be credited this year with about 77 per cent. of the total coal-output.

The gross output of the collieries of the Province for the past year was, as already stated, 2,398,715 tons, and 2,805 tons of coal was taken from stock, making the gross amount of coal distributed 2,401,520 tons.

Of this gross amount, there was sold for consumption in Canada, 935,469 tons; sold for consumption in the United States, 754,568 tons; sold in other countries, 38,211 tons; making the total coal sales for the year 1,728,248 tons of 2,240 lb.

In addition to the coal sold, there was used in the manufacture of coke 248,740 tons, and used under companies' boilers, etc., 198,102 tons; while 226,430 tons was lost in washing and screening.

The coke sales of the Province for the past year amounted to 160,522 tons, of which 734 tons was taken from stock.

The following table indicates the markets in which the coal and coke output of the Province was sold:—

Coal.	Coast District.	Crowsnest Pass District.	Total for Province.
Sold for consumption in Canada .....tons, 2,240 lb.	861,672	73,797	935,469
" export to United States ..... "	528,721	225,847	754,568
" export to other countries ..... "	38,211	.....	38,211
Total coal sales.....	1,428,604	299,644	1,728,248
Coke.			
Sold for consumption in Canada .....tons, 2,240 lb.	31,559	116,252	147,811
" export to United States ..... "	.....	12,711	12,711
" export to other countries..... "	.....	.....	.....
Total coke sales.....	31,559	128,963	160,522

Collieries of Coast District.

The Collieries of the Coast District, which includes those on Vancouver island and in the Nicola-Princeton fields, mined 1,846,964 tons of coal in 1917, while 2,811 tons was taken from stock, making 1,849,775 tons distributed from these collieries in 1917. This amount was distributed thus:—

Sold as coal in Canada	861,672	tons.
Sold as coal in United States	528,721	„
Sold as coal in other countries	38,211	„
Total sold as coal	1,428,604	tons.
Used under companies' boilers, etc.	140,452	„
Used in making coke	54,289	„
Lost in washing, etc.	226,430	„
	1,849,775	„
Minus coal taken from stock	2,811	„
Gross output	1,846,964	„

The total coal sales of the Coast collieries for the year show, as compared with the sales of the previous year, an increase of 188,779 tons, equivalent to over 15 per cent.

The coal sold in British Columbia by the collieries of the Coast District show this year an increase of 78,939 tons, or about 10 per cent. from the preceding year; the amount exported to the United States was 77,795 tons greater, and 38,211 tons of coal was exported to other countries.

Only one company in the Coast District—the Canadian Collieries, Limited—has ever made coke; in 1916 the ovens were again put in operation after several years of inactivity, and in 1917 this company produced 30,406 tons (2,240 lb.) of coke, 117 tons was burned under the company's boilers, and 1,270 tons was taken from stock, making the total sales for the year 31,559 tons.

On Vancouver island five companies produced coal this year—the Canadian Collieries, Limited, the Western Fuel Company, the Pacific Coast Coal Mines, the British Columbia Coal

Mining Company, and the Nanoose Collieries, Limited; the majority of these companies each operate two, or more, collieries. The combined gross output of the Island collieries was 1,695,721 tons.

In the Nicola and Princeton coal-fields of the Coast District, the Middlesboro Colliery Company produced 83,458 tons of coal; the Princeton Colliery, 46,926 tons; the Inland Coal and Coke Syndicate (formerly Coal Hill Syndicate), 7,296 tons; the Pacific Coast Colliery Company, 206 tons; and the Merritt Collieries, Limited, 13,357 tons.

The total output of this portion of the sub-district was 151,243 tons.

East Kootenay Coalfield.

There were only two companies operating in this district this past year—the Crow's Nest Pass Coal Company, operating two separate collieries, the combined output of which was 450,686 tons; and the Corbin Coal and Coke Company, which made an output of 101,065 tons; making a gross output for the district for 1917 of 551,751 tons of coal. The Hosmer Mines, Limited, did not operate.

In addition to the coal mined, 6 tons was added to stock, making the amount of coal distributed from the collieries 551,745 tons.

Of this gross tonnage, 194,451 tons was used in the manufacture of coke, of which there was produced 129,499 tons (2,240 lb.).

The coke sold this year amounted to 128,963 tons, and 536 tons was added to stock.

The following table shows the distribution made of the coal of this district:—

Sold as coal in Canada	73,797	tons.
Sold as coal in United States	225,847	„
Total sold as coal	299,644	tons.
Used by the companies in making coke	194,451	„
Used by the companies under boilers, etc.	57,650	„
	551,745	„
Plus coal added to stock	6	„
Gross output	551,751	„

BUILDING MATERIALS.

The production of building materials in 1917 was slightly less than in the preceding year, being $1,204,546 as compared with $1,299,553. The statistical returns are not yet as complete as could be desired, due to the reluctance of a few producers to give returns, but it is believed the figure given above approximates very closely to the actual output. Since 1912, when a production amounting to $3,435,722 was recorded, the output of building materials has steadily declined, due to the cessation of the building trade, brought about by the continued financial depression, and the war. It is probable that the figures have now reached a minimum, and that an output amounting from $1,000,000 to $1,500,000 represents the steady yearly demand for these materials for use in repairs, renewals, and various small demands, without any new construction-work. It may be expected, therefore, that the production will remain at about this figure until a period of active construction-work again commences in the Province. The diminution of production has been general in all kinds of material.

The outputs of sand and gravel, of brick, pottery, and cement are all slightly less than in 1916, but the decrease is not serious. The output of fire and face brick shows an increase, due to a slightly larger production by the Clayburn Company. Approximately 88 per cent. of the total production of building materials comes from the Coast District, and the larger part of this finds its markets in the Coast cities.

In Table V., where the production of building materials is given in detail by districts, the column previously headed "Clay, Gypsum, etc.," was changed last year to "Miscellaneous Minerals," this column being used for listing the production of hydromagnesite from Atlin, molybdenite from Skeena, Lillooet, and Nelson, and Osoyoos and antimony ore from Slocan.

The column formerly headed "Pottery and Tile" now is "Pottery and Clay," and includes the production figures of clay, which are, however, small. No production of gypsum has been recorded as yet. The column previously headed "Crushed Rock" is this year "Crushed Rock and Flux"; in it is recorded, in addition to the crushed rock, the tonnages of limestone and quartz which are quarried for use at the smelters as flux.

Building-stone. Excellent building-stone of various sorts is found in abundance in almost every part of the Province; the fact of its widespread distribution has, however, been somewhat against the establishment of large quarrying industries, as a sufficient local supply could always be obtained, and, except within reach of the larger cities, few regularly equipped quarries have been opened.

On the Coast, chiefly between Vancouver island and the Mainland, there are several well-equipped quarries taking out granite, sandstone, and andesite, all of excellent quality. These quarries supply the stone building material of the Coast cities, and have also exported to the United States.

A detailed description of the more important quarries was given in the Report of this Bureau for 1904.

The only important producer during the past year was the Sechelt Granite Quarries, and the output from this, amounting to a little over $110,000, all went to the Government piers at Victoria.

Marble. No production of marble was made last year so far as has been ascertained. Marble-quarries in the Ainsworth Mining District and on Texada island have been partially developed in previous years, but no serious production has yet been started.

Sample slabs from one of the quarries on Texada island sent to the Provincial Museum show a marble very pleasing to the eye and of excellent quality, hard, and taking a good polish. The other quarry in 1914 sent at least one scow-load of large blocks to Vancouver—presumably to be slabbed—but very little further work has since been done.

Red Brick. The production of red brick during the past year was about 2,000 M.; the price varies from $8 to $11 a thousand, according to quality and demand. This small output shows very clearly that but little construction-work has been carried on. It is probable, however, that a considerable quantity of brick is still imported into the Province.

Firebrick. The only company producing firebrick in the Province is the Clayburn Company, Limited, with a plant at Clayburn. The fireclay is found here as a bed occurring in bedded rocks of Eocene age. Shales, sandstones, and conglomerates, all but little consolidated, make up this sedimentary series. The shales are quarried or mined for brick-making and one bed is an excellent fireclay. Associated with these rocks is a bed of lignite which is sufficiently good to be used for firing the boilers of the plant. The production of this company was a little greater than in 1916. Firebrick is the principal manufactured article produced by this company, but, in addition, considerable quantities of common brick, paving-brick, tiles, drain-pipe, and prepared fireclay are made. The output for the year is valued at nearly $200,000.

Pottery Drain-pipe and Tile. The British Columbia Pottery Company at Victoria West, which manufactures drain and sewer pipes, chimney-tiles, etc., made about the same production in 1917 as in the previous year. The Port Haney Brick Company, besides manufacturing common brick, also makes drain-pipe, partition-blocks, etc.

Lime. The manufacture of lime is conducted in a small way at a large number of points in the Province, but only on the Coast has any attempt been made at more extensive operations. In the neighbourhood of Victoria, on Esquimalt harbour three kilns are in operation, and there are kilns on Saanich arm. On Texada island—in addition to the old plant at Marble bay—a new and extensive plant was erected at Blubber bay a few years ago. The limestone being used is of exceptional purity, but in some instances the limestone-beds are cut by igneous dykes which have to be rejected, and this somewhat increases the costs of quarrying.

The production of lime and limestone for 1916 is valued at $102,223, as compared with $106,000 in 1915, and in addition nearly $100,000 worth of limestone was quarried for use as smelter flux by the Granby and Consolidated Companies.

Portland Cement. The production of Portland cement in the Province is made by two companies—the Vancouver Portland Cement Company, with works at Tod inlet, and the Associated Cement Company, with works at Bamberton. The combined production amounted to $487,829, which compares with $436,459 worth produced in 1916.

Crushed Rock and Gravel. The returns for crushed rock and gravel indicate a falling-off in the demand for this material. Some of the plants which have been in operation for the past two or three years ceased operations, and others made a smaller output than in the previous year.

During the boom years of 1911 and 1912 a number of well-equipped plants were put up near Vancouver and Victoria for supplying washed sand and gravel, properly screened to size. Some of these companies use a system of mining the gravel by hydraulic streams and carrying the product to the screens by the water used. Practically all of these plants are now idle, as there is but little demand for sand and gravel.

BUREAU OF MINES.

WORK OF THE YEAR.

The work of the Bureau of Mines naturally increases year by year, this growing activity being due to the following causes: The extension of the mining area of the Province, with the proportional increase in the number of mines; the increasing desire of the outside public for the free information which the Bureau supplies with regard to the various mining districts and camps, and the appreciation by the prospector of the fact that he may obtain, gratis, a determination of any rock or mineral which he may send to the Bureau.

The routine work of the office, and the preparation and publication of the Report for the year just ended, followed by the examination in the field of as many of the mines and mining districts as the season would permit, together with the work of the Laboratory, fully occupied the staff for the year.

The permanent staff of the Bureau now consists of the Provincial Mineralogist and Assayer, Wm. Fleet Robertson; the Assistant Provincial Assayer and Provincial Analyst, D. E. Whittaker; while John D. Galloway, M.Sc., was Assistant Provincial Mineralogist until June, when he was appointed Resident Engineer of the North-eastern Mineral District, with headquarters at Hazelton. Major Nation, who went overseas in 1914, returned in September, 1917, and resumed his position as general office assistant.

During the session of 1917 the Hon. the Minister of Mines brought in the "Mineral Survey and Development Act," which was passed on May 19th, 1917, and under the provisions of which the Province was divided into six Mineral Districts, to each of which there was appointed a Resident Engineer with headquarters at a centrally located point in such district.

In the district to which he was appointed the Resident Engineer is expected to devote his whole time to the performance of the duties of his office, and to carry on continuously a mineral survey of his district, keeping records of the same and of the mining and mineral developments taking place, and at the same time to assist prospectors and others with such advice as may be necessary and may come within the scope of a mining engineer's work.

Aside from special reports which may be called for by the Minister, the Resident Engineers are expected annually to make a comprehensive report covering all matters relating to mining, mine development, and prospecting that have occurred within the year in their respective districts.

These annual reports of the Resident Engineers are given later in this general Report, and form the basis of the information given in respect to the mineral industry and its development within the Province.

As the Resident Engineers did not take office until the season of 1917 was well advanced, and as the work was new to many of them, their reports are not as complete or comprehensive as they probably will be next year.

The following are the six Mineral Districts into which the Province is divided, with the Mining Divisions included in each and the location of the permanent office of the district, with the name of the Resident Engineer appointed to each district:—

(1.) The North-western Mineral Survey District shall consist of that portion of the Province contained within the following Mining Divisions, that is to say: Atlin, Stikine, Liard, Skeena, Portland Canal, Bella Coola, and Queen Charlotte; and shall have its permanent survey station and office at the City of Prince Rupert. Resident Engineer, Geo. A. Clothier.

(2.) The North-eastern Mineral Survey District shall consist of that portion of the Province contained within the following Mining Divisions, that is to say: Omineca, Peace River, Cariboo, and Quesnel; and shall have its permanent survey station and office at Hazelton. Resident Engineer, John D. Galloway, M.Sc.

(3.) The Central Mineral Survey District shall consist of that portion of the Province contained within the following Mining Divisions, that is to say: Clinton, Lillooet, Kamloops, Ashcroft, Nicola, Vernon, and Yale; and shall have its permanent survey station and office at the City of Kamloops. Resident Engineer, R. W. Thomson.

(4.) The Southern Mineral Survey District shall consist of that portion of the Province contained within the following Mining Divisions, that is to say: Similkameen, Greenwood, Grand Forks, and Osoyoos; and shall have its permanent survey station and office at the City of Grand Forks. Resident Engineer, Philip B. Freeland.

(5.) The Eastern Mineral Survey District shall consist of that portion of the Province contained within the following Mining Divisions, that is to say: Golden, Windermere, Fort Steele, Ainsworth, Slocan, Slocan City, Trout Lake, Nelson, Arrow Lake, Revelstoke, Lardeau, and Trail Creek; and shall have its permanent survey station and office at the City of Revelstoke. Resident Engineer, A. G. Langley, B.Sc.

(6.) The Western Mineral Survey District shall consist of that portion of the Province contained within the following Mining Divisions, that is to say: Nanaimo, Alberni, Clayoquot, Quatsino, Victoria, Vancouver, and New Westminster; and shall have its permanent survey station and office at the City of Nanaimo. Resident Engineer, W. M. Brewer.

ASSAY OFFICE.

The following is a summary of the work of the Assay Office of the Bureau of Mines for the year 1916 as reported by the Assistant Provincial Assayer, D. E. Whittaker:—

During the year 1917 there were made by the staff in the Government Assay Office 3,272 assays or quantitative determinations; of these the majority were for the Bureau of Mines or for the other departments, for which no fees were received.

The fees collected by the office were as follows:—

Fees for analyses	$ 693 50
Fees for assaying	181 15
Fees for melting and assaying gold-dust and bullion	61 35
Fees for assayers' examinations	195 00
Total cash receipts	$1,131 00

Determinations and examinations made for other Government departments for which no fees were collected—

Attorney-General's Department	$ 525 00
Agriculture Department	400 00
Board of Health	430 00
Treasury Department	61 90
Other departments	10 00
	$1,426 90
Value of work done outside of Department work	$2,557 90

The value of gold melted during the year 1917 was $6,647 in 29 lots, as against $25,823 in 47 lots in 1916.

Free Determinations.

In addition to the above quantitative work, a large number of qualitative determinations, or tests, were made in connection with the identification and classification of rocks or minerals sent to the Bureau for a report; of these no count was kept, nor were any fees charged, as it is the established custom of the Bureau to examine and test qualitatively, without charge, samples of minerals sent in from any part of the Province, and to give a report on the same. This has been done for the purpose of encouraging the search for new or rare minerals and ores, and to assist prospectors and others in the discovery of new mining districts, by enabling them to have determined, free of cost, the nature and probable value of any rock they may find. In making these free determinations, the Bureau asks that the locality from which the sample was obtained be given by the sender.

EXAMINATIONS FOR ASSAYERS.

Report of D. E. Whittaker, Secretary of Board of Examiners.

I have the honour, as Secretary, to submit the Annual Report for the year 1917 of the Board of Examiners for Certificates of Competency and Licence to Practise Assaying in British Columbia, as established under the "Bureau of Mines Act Amendment Act, 1899."

An examination was held at Victoria, in the Government Laboratory, on May 18th and the following days. One candidate came up for examination, and obtained the required number of marks; the Board recommended that a Certificate be granted to him. Two candidates applied for exemption under section 2, subsection (2), of the Act, and the Board recommended that certificates be granted to them.

Another examination was held at the Government Laboratory, Victoria, on December 14th. Three candidates came up for examination, and two obtained the required number of marks, and the Board recommended that Certificates be granted to them. Two candidates applied for exemption under section 2, subsection (2), of the Act, and the Board recommended that Certificates be granted to them.

In accordance with the recommendations of the Board, Certificates have been duly issued by the Honourable the Minister of Mines to these seven candidates.

List of Assayers holding Provincial Certificates of Efficiency under the "Bureau of Mines Act Amendment Act, 1899."

(Only the holders of such certificates may practise assaying in British Columbia.)

Under section 2, subsection (1).

Adams, J. B.	Victoria.	Kitto, Geoffrey B.	Victoria.
Archer, E. G.	Anyox.	Langley, A. S.	Crofton.
Armstrong, N.	Vancouver.	Lee, Fred E.	Trail.
Ayres, D. A.		Lee, Geo. M.	Grand Forks.
Austin, John W.	Hazelton.	Ley, Richard H. (C.E.F.)	
Backus, Geo. S.	Britannia Beach.	Levy, Frank	Rossland.
Baker, C. S. H.		Lindsay, W. W.	Kimberley.
Barke, A. C.		Longworth, F. J.	Boyds, Wash.
Bernard, Pierre	Monte Christo, Wash.	Laucks, I. F.	Seattle.
Bishap, Walter	Grand Forks.	Manning, S. M.	Trail.
Buchanan, James	Trail.	Martin, S. J.	Hazelton.
Buehman, A. C.	Trail.	Marsh, Richard	Republic, Wash.
Campbell, Colin	New Denver.	Marshall, H. Jukes	Vancouver.
Carmichael, Norman	Clifton, Arizona.	Marshall, William S.	Ladysmith.
Church, George B.		Merrifeld, T. T.	Trail.
Cobeldick, W. M.	Scotland.	Miles, Arthur D.	
Collinson, H.	Cobham, Eng.	Mitchell, Charles T.	Copper Cliff, Ont.
Comrie, George H.		McCormick, Alan F.	Ruth, Nevada.
Craufurd, A. J. F.	Rossland.	MacDonald, Alec C.	Vancouver.
Crerar, George		Morgan, Richard	Trail.
Cruickshank, G. (C.E.F.)		Nicholls, Frank	Norway.
Davidson, J. R.	Vancouver.	Parker, Robt. H.	
Day, Athelstan	Dawson.	Parsenow, W. L.	
Dedolph, Ed.	Nelson.	Perkins, Walter G.	
Dockrill, Walter R.	Chemainus.	Pickard, T. D.	Vancouver.
Dunn, G. W.	Rossland.	Pirrie, Noble W.	Ottawa.
Farquhar, J. B.	Vancouver.	Powell, J. G.	New Hazelton.
Fingland, John J.	Kaslo.	Prior, C. E.	Hedley.
Grosvenor, F. E.	Vancouver.	Richmond, Leigh	Duncan.
Hamilton, Wm. J.	Anyox.	Robertson, T. R.	
Hannay, W. H.	Rossland.	Rodgers, Ch. B.	Vancouver.
Hart, P. E.		Rombauer, A. B.	Butte, Mont.
Hawkins, Francis	Silverton.	Schroeder, Curt. A.	
Hawes, F. B.	Vancouver.	Segsworth, Walter	Toronto, Ont.
Hodgson, A. R.	Anyox.	Sharpe, Bert N.	
Hook, A. Harry	Greenwood.	Sim, Chas. John	Monte Carlo.
Hurter, C. S.	Prince Rupert.	Snyder, Blanchard M.	
Irwin, Geo. E.	Vancouver.	Steven, Wm. Gordon	
John, D.	Haileybury, Ont.	Stimmel, B. A.	Trail.
Kiddie, Geo. R.	California.	Sundberg, Gustave	Mexico City.
King, R.	Greenwood.	Tally, Robert E.	Spokane, Wash.

Under section 2, subsection (1)—Concluded.

Thomas, Percival W. ..... Vancouver.
Tretheway, John H. .....
Turner, H. A. ..... Vancouver.
Vance, John F. C. B. ..... Vancouver.
Van Agnew, Frank ..... Siberia.
Vaughan-Williams, V. L. .. California.
Wales, Roland T. .....
Watson, Wm. J. ..... Ladysmith.
Watson, Thomas ..... Vancouver.
Welsh, J. Cuthbert ..... Butte, Mont.
Wells, Ben T. .....
West, Geo. G. ..... Vancouver.
Whittaker, Delbert E. ..... Victoria.
Widdowson, E. Walter .... Nelson.
Williams, W. A. ..... Vancouver.
Williams, Eliot H. .....
Wimberly, S. H. ..... Nevada, U.S.A.

Under section 2, subsection (2).

Archer, Allan .....
Blaylock, Selwyn G. ..... Trail.
Bissett, D. G. ..... Trail.
Bolton, George E. ..... Silverton.
Brennan, Charles Victor .. Bingham, Utah.
Browne, R. J. ..... Rossland.
Browne, P. J. ..... Nelson.
Bryant, Cecil M. .....
Burwash, N. A. .....
Cavers, Thomas W. .....
Clothier, George A. ..... Prince Rupert.
Cole, Arthur A. ..... Cobalt, Ont.
Cole, G. E. ..... Rossland.
Cole, L. Heber ..... Ottawa, Ont.
Conway, E. J. ..... Vancouver.
Coulthard, R. W. (C.E.F.)
Cowans, Frederick .....
Dawson, V. E. ..... Trail.
Dempster, R. C. ..... Rossland.
Dempster, A. S. ..... Rossland.
Dixon, Howard A. ..... Toronto, Ont.
Eardley-Wilmot, V. L. .... Rossland.
Eldridge, Gardner S. ..... Vancouver.
Galbraith, M. T. .....
Gilman, Ellis P. ..... Vancouver.
Green, J. T. Raoul ..... Blairmore, Alta.
Guess, George A. ..... Toronto, Ont.
Gwillim, J. C. ..... Kingston, Ont.
Harding, Wilson M. .....
Heal, John H. .....
Hearn, Roy D. ..... Trail.
Hilliary, G. M. ..... Idaho, U.S.A.
Johnston, William Steele .. Lachine, Que.
Kaye, Alexander ..... Vancouver.
Kendall, George ..... Vancouver.
Kidd, G. L. ..... Edmonton, Alta.
Kilburn, Geo. H. ..... Rossland.
Lathe, Frank E. ..... Grand Forks.
Lay, Douglas (B.E.F.) .....
Lewis, Francis B. ..... South Africa.
Merrit, Charles P. .....
Murphy, C. J. ..... St. Catherines, Ont.
Musgrave, W. N. (C.E.F.) .. England.
McArthur, Reginald E. ....
McDiarmid, S. S. .....
McGinnis, Wm. C. ..... Queen Charlotte Ids.
McKay, Robt. B. ..... Vancouver.
McLellan, John ..... Queen Charlotte Ids.
McMurtry, Gordon O. .....
McNab, J. A. ..... Thompson, Nevada.
McPhee, W. B. .....
McVicar, John ..... Edmonton, Alta.
Maclennan, F. W. .....
Moran, P. J. ..... Vancouver.
Newton, W. E. ..... Sandon.
Oughtred, S. W. ..... Ainsworth.
Outhett, Christopher ..... Kamloops.
Pemberton, W. P. D. (C.E.F.) Victoria.
Reid, J. A. ..... Greenwood.
Ritchie, A. B. ..... Nelson.
Roaf, J. R. (C.E.F.) .....
Rose, J. H. ..... Thompson, Nevada.
Rutherford, R. C. ..... Trail.
Sampson, E. H. S. ..... Riondel.
Scott, Oswald Norman .....
Shannon, S. .....
Sharpe, G. P. ..... Midland, Ont.
Shorey, P. M. ..... Trail.
Sloan, David ..... Three Forks.
Stevens, F. G. ..... Mexico.
Stroud, J. E. C. ..... Anyox, B.C.
Sullivan, Michael H. ..... Kellogg, Idaho.
Sutherland, T. Fraser .....
Sutherland, Wm. ..... Glasgow, Scotland.
Swinney, Leslie A. E. .....
Thompson, W. K. ..... Trail, B.C.
Thomson, H. Nellis ..... Anaconda, Montana.
Thomson, Robt. W. .....
Watson, A. A. .....
Watson, Henry .....
Willis, F. S. ..... Trail.
Winslow, R. H. ..... Vancouver.
Wilson, Ridgeway R. ..... Fernie.
Workman, Ch. W. .....
Wright, Richard ..... Rossland.
Wynne, Lewellyn C. .....
Yuill, H. H. (C.E.F.) .....

Under section 2, subsection (3).

Carmichael, Herbert ..... Victoria.
Galloway, J. D. ..... Victoria.
(Resident Engineer.)
Harris, Henry ..... Tasmania.
Hedley, Robt. R. ..... Vancouver.
Kiddie, Thos. ..... California.
Marshall, Dr. T. R. ..... London, England.
McKillop, Alexander ..... Vancouver.
Pellew-Harvey, Wm. ..... London, England.
Robertson, Wm. Fleet ..... Victoria.
(Provincial Mineralogist.)

PREVIOUSLY ISSUED UNDER THE "BUREAU OF MINES ACT, 1897, SECTION 12.

Pinder, W. J. .....
Thompson, James B. ..... Vancouver.

NORTH-WESTERN DISTRICT (No. 1).

REPORT OF GEO. A. CLOTHIER, RESIDENT ENGINEER.

INTRODUCTORY.

District No. 1 includes all the north-western portion of the Province from Seymour inlet on the south to the boundary-line between British Columbia, Alaska, and the Yukon on the north. It is comprised of the seven Mining Divisions, viz.: Bella Coola, Queen Charlotte, Skeena, Portland Canal, Stikine, Atlin, and Liard. Its total length is approximately 700 miles, of which about 400 miles, if Portland canal be included, is open coast; the remaining 300 miles is east of the Alaska strip.

Geographically, the district could not be improved upon from a mining view-point, for in its 400 miles of direct coast-line there are innumerable islands, and thousands of miles of waterways cutting into the mainland, affording transportation facilities far superior to an equal number of miles of railroad. The same features make it an ideal region for the prospector, providing unlimited miles of rock-exposures along the beach, and necessitating a trip of only a few miles from tide-water, in any direction, should he wish to explore the higher ground. He is also fully insured against the "lack of transportation" lessening the value of his prospect. The establishment in this district of several large mining companies on the Coast in the last few years, notably the Granby Company and the Belmont-Surf Inlet Company, and their constant demand for new properties has created a market for meritorious prospects. The prospector of to-day has no difficulty whatever in having his property examined by prospective buyers and exploratory work done if he advances reasonable terms.

Furthermore, the fact that there are on the Coast three smelters purchasing all classes of ore should be an incentive for the prospectors owning small, high-grade veins to mine and ship their own ores. It is worthy of note that several prospects have shipped small tonnages to the smelters during the past season.

Geologically, the distribution of the rock formations in the district is considered as conducive to the deposition of ore-bodies. Briefly, the central entire length of the district is composed of the granodiorites of the Coast range. This core varies in width from thirty to sixty miles, in which, in many places, are extensive areas of included sedimentary rocks, usually with iron pyrites disseminated, and worthy of attention. Dykes of all kinds intrude the granite, and with fracture-cracks, fissures, shear-zones, etc., give passage-way for the circulation of mineral-bearing solutions and favourable conditions for the deposition of ore.

Bordering the main mass of granodiorite, on either side, is a broad contact-belt of altered sedimentaries through which the granite has intruded. These contact regions are naturally broken up, tilted in all directions, and intruded by offshoots of granite from the main batholith, all of which conditions facilitate the circulation of solutions and the precipitation of their mineral contents.

The eastern boundary of the granodiorites is accessible from the Coast by way of the Grand Trunk Pacific Railroad, the broad valley of the Kitsumgallum river marking about the eastern limit. The heads of Observatory inlet and Portland canal also just penetrate the Coast range. Farther north the Stikine river and its principal tributary, the Iskut river, are each navigable to well within the eastern contact-zone.

The district in 1917 produced 822,819 tons, of which 784,000 tons was mined and smelted by the Granby Company, of Anyox, which tonnage includes the low-grade quartz mined for use as flux. Several prospects have shipped small tonnages to the Granby smelter.

An important shipper has been added to the list in the Belmont-Surf Inlet Mines Company, shipping to the Tacoma smelter 722 tons of table and flotation products.

The only other steady shipper was the Ikeda Mines, on Moresby island, its tonnage amounting to 1,000 tons shipped to the Granby Company.

The Drum Lummon Copper Mines, Limited, developing a property on Douglas channel, made a small smelter test shipment.

The present bondholders of the Bush property, on Salmon river, Portland canal, are rawhiding several hundred tons of gold-silver ore from the mine to Eleven-mile, and will haul from there to the beach on double-enders for shipment to the smelter.

The Dolly Varden Mines Company had planned to ship steadily all winter from its property in the Alice Arm section, but was disappointed in the non-completion of the railroad.

THE SKEENA MINING DIVISION.

This is the largest and, as yet, the most important Division in District No. 1, principally due to the operations of the Granby Consolidated Mining, Smelting, and Power Company, which have had a far-reaching effect on the mining outlook for the Coast.

The chief metal product of the Division is copper, producing about 47 per cent. of the total output of the Province in 1917.

With the advent of the Belmont-Surf Inlet Mines into the shipping class this year and the very probable addition of the Dolly Varden Mines in 1918, the production of gold and silver will be very materially improved.

Belmont-Surf Inlet.

This company's mining property consists of nine mineral claims—*D.L.S.*, *Gulch*, *Bluff*, *Bench*, *Uta Frac.*, *Mountain Frac.*, *Twin Peaks*, and *La Quivre*. They are situated about six miles from the head of Surf inlet, about a mile from Bear lake, and are some of the oldest locations in the Skeena Mining Division. These claims, known as the "*D.L.S.* group," were formerly owned by the Surf Inlet Mines, Limited, who optioned them to the Belmont Canadian Mines, Limited, retaining 20 per cent. The Belmont Canadian Mines, Limited, developed and bought the property and reorganized into the present company.

The placing of the property on a producing basis presented some difficult problems, and credit is due the staff for the thoroughly equipped and up-to-date plant now in operation. Nothing has been spared to bring everything to a high degree of efficiency.

The mine, as stated, is about six miles from the head of Surf inlet; in that distance there were two lakes, Cougar and Bear, about a mile apart, a small creek flowing from the foot of the upper to the head of the lower, there being a difference in elevation of 31 feet. The lower end of the first or Cougar lake is approximately 200 yards from the wharf at tide-water at the head of Surf inlet. Both the transportation and power problems were solved by the construction of a reinforced-concrete dam at the lower end of the lower lake. This dam, of the Ambursen type, is 45 feet high and 450 feet in length, and raises the level of the lower lake sufficiently to make a continuous waterway from the head of the dam to the foot of the mountain, about a mile from the mine. From this point an overhead-trolly electric railroad runs to the camp on an even, easy grade, connecting there with an incline tram of the same gauge which runs to the mouth of the working-tunnel. An incline tram from the ocean dock to the lake, equipped with an electric hoist, completes the transportation. A tug and barges, carrying fifteen 2-ton mine-cars, are operated on the lake. The concentrates, so far, have been sacked for shipping, but later on will be sent out in bulk. Cars will be loaded directly from the storage-bins at the foot of the concentrator and emptied into the storage-bins at the dock.

The lake also provides ample storage of water for power purposes and a very compact and efficient power plant has been installed at the beach. A 6-foot pipe-line from the intake at the dam to the power-house, a distance of 314 feet, gives a head of 62 to 84 feet, depending upon the tide. The power-house is a reinforced-concrete building, 35 x 58 feet, and is equipped with two Pelton-Francis turbines of the single spiral volute, cast-iron case, horizontal single runner, double-discharge type. They are 750 horse-power each, requiring 100 cubic feet of water a second, and are fitted with Pelton oil-pressure governors which respond to speed variations of less than ¼ of 1 per cent. Two Westinghouse generators are direct-connected to the turbines, each 468 k.v.a., 440 volts, which is stepped up through three 300-k.v.a., oil-insulated, self-cooled transformers to 22,800 volts for transmission to the mine sub-station, where it is stepped down to meet the requirements of lighting and power.

The mine has over 30,000 feet of underground development, and the company engineers estimate that there are in sight 390,000 tons of $12.50-a-ton ore for milling purposes.

The ore is a pyritized quartz carrying chiefly gold values, with a little silver and copper, and concentrates about 10 or 11 into 1, making between a $125 and $135 concentrate, the gold values in which will run about $120; silver, 6 oz.; and copper, 2.5 per cent. The quartz lies

in two well-defined shear-zones in gneissoid granite, the main fracture, in which the main tunnel was driven, splitting into the two, about 300 feet south of the quartz-bodies. They occur in lenticular bodies varying in width up to 40 feet, averaging about 10 feet. On the main working-level, the 550-foot, the quartz is practically continuous for 800 feet, in which there are developed, so far, about 400 feet of milling-ore. This is in the west or hanging-wall zone. From this level a winze has been sunk about the centre of the ore-shoot to a depth of 265 feet on the dip of the vein, and 700 feet of drifting done from the bottom both ways. This was full of water at the time of my visit, but I was informed by the general superintendent, Mr. Holler, that they opened up an exceptionally fine shoot of ore, over 500 feet in length and averaging about 16 feet in width. Three stopes are being opened up on the 550-foot level, two on the west and one on the east zone. No. 1 stope is a lens 120 feet long, averaging 8 feet in width, of pyritized quartz enclosing bands of schists. About 30 feet north of the end of this stope is the winze to the lower level, and 45 feet beyond that, No. 2 stope opens up and continues for 150 feet, with an average width of 16 feet. The general dip of the quartz is about 38 degrees west. The ore in No. 2 stope is a clean quartz carrying disseminated pyrites with small veinlets and bands of the same material, the only schist being about 2 feet on the foot-wall, in some places a very good grade of ore. No. 3 stope is on the east fork of the main fracture, and on this level is narrow and of medium grade of ore. A raise has been run from a crosscut and drift in the foot-wall of the 550-foot level, through to the 200-foot level, which opens from the surface. From this raise two intermediate levels have been driven at the 430- and 320-foot levels. No. 4 raise also connects the 430-foot level with the 550-foot level and is used as an ore-chute. Both veins have been picked up on the 430-foot level and a stope is being opened up on the west; it is now timbered for a length of 175 feet and averages about 12 feet in width; the centre of it is 16 feet wide, of clean, good-grade milling-ore, which, however, becomes more or less mixed with schist on the ends. The 320-foot level has not been developed to any extent, and it appeared to me that it was probably in the break of the ground where the ore-shoot jumps from the east vein to the west. On the 200-foot level the ore is practically all on the east side, and three stopes are now being opened, each over 150 feet long and averaging over 9 feet wide. All ore from this level is dropped to the main level, which is equipped with heavy 30-inch gauge track for a 6-ton storage-battery, Westinghouse motor, hauling six 2-ton cars a trip to the crusher-bins at the head of the mill.

Stoping is done with Waugh stopers and the heavier development-work with water Leyners. A well-equipped blacksmith-shop includes a Waugh drill-sharpener and a Denver type oil-forge. Mine-timber is procured down the valley, brought over the electric railroad to the foot of the surface tram, thence to the mouth of the tunnel. This surface tram is operated from the head by a 35-horse-power motor, and is so arranged with sidings as to serve the ore-storage building at the foot of the hill, assay office, crushing plant, etc., and each level of the concentrator.

The mine ore is dumped into two cylindrical bins, each of 600 tons capacity, at the head of the crushing plant. Then fed by 4-foot drums under the lip of the chute, regulated by adjustable stroke, to a 6 K alternating-current gyratory crusher, having a capacity of 300 tons in 8 hours, crushing to 2 inches. Some little difficulty is had in obtaining a uniform product on account of the flat fracture of the quartz. From crusher to bin to 20-inch conveyor-belt, over a Merrick weightometer, to two cylindrical storage-bins, same capacity as above, at the head of the mill, a short conveyor-belt permitting of discharge into either bin. The ore is fed by two Wall type feeders to two 6- x 5-foot alternating-current ball-mills with attached ⅛-inch perforated metal trommels; the undersize going to two duplex, 24-inch, 20-mesh, Callow travelling-belt screens, the oversize from which joins the oversize from the trommels and is returned by two 14-inch belt-and-bucket elevators to the ball-mills. Each ball-mill revolves at 23 or 24 r.p.m., carries a charge of 14,000 lb. of steel balls, and is operated by a 100-horse-power motor. Consumption of steel is about 4 lb. a ton of ore crushed. The undersize from the Callow screens go to a distributer, to six No. 9 double-deck Wilfley tables. Concentrates from the Wilfleys to dewaterer, to conveyor, to bins; tailings to four Dorr, duplex, drag classifiers, the sand from which to four 5- x 16-foot Allis Chalmers tube-mills revolving at 27 r.p.m., operated by 60-horse-power motors, grinding 90 per cent. to 200 mesh, and run in closed circuit with the classifiers. The overflow from the classifiers furnishes the feed for the oil-flotation section of the mill. The oil mixture, consisting of 5 per cent. pine-oil, 35 per cent. creosote, and 60 per cent. coal-tar, is fed to the tube-mills. A small amount of sodium sulphide is also used. The flotation section consists of one Jones-Belmont type primary flotation-machine, taking all the classifier overflow, concentrates

to 30- x 12-foot Dorr thickener, tailings to two series of three secondary or rougher-machines each. The final tailings from the rougher-machines go to pond, the concentrates from each of the roughers going to one cleaner-machine. Concentrates from cleaner to Dorr thickener; tailings returned by a 14-inch belt-and-bucket elevator to the classifiers. Spigot product from Dorr thickener to one 11-foot 6-inch by 8-foot Oliver continuous filter, from which the dried concentrates, containing about 12 per cent. moisture, go to 20-inch belt-conveyor to bin. The overflow from the Dorr thickener is pumped by a 2-inch centrifugal back to the classifiers. All the flotation-machines are of the Jones-Belmont type.

The mill is operated by three shifts of three men on each shift. It is producing from 25 to 30 tons of concentrates from a feed of about 300 tons in twenty-four hours. Approximately 50 per cent. of the pyrite content is recovered on the Wilfley tables and is a very clean product, averaging about 5 per cent. silica. The flotation product averages about 15 per cent. insoluble; the combined shipping product therefore averages 10 per cent. silica. The recovery has been about 92 per cent., the concentrates assaying $125 to $135 a ton in gold, 6 oz. a ton in silver, and 2.5 per cent. copper. The company will have shipped in 1917 about 1,700 tons and expect to have a steady output of between 800 and 900 tons a month.

Distribution of motor-power in the mill is as follows: One 25-horse-power motor drives line-shaft for vacuum-pump for filter-press, centrifugal pump, thickener, and elevator from cleaner-cells to tube-mill circuit; one 30 horse-power for one series of rougher-cells and the cleaner; one 30 horse-power for second series of roughers and primary cell; four 60 horse-power for the four tube-mills; one 25 horse-power for line-shaft driving classifiers, oil-feeders, oil-mixer, table feed-distributer, and six Wilfleys; two 100 horse-power for the two ball-mills; one 25 horse-power for line-shaft driving elevators from trommels and Callow screens to ball-mills, Callow screens, and ore-feeders; one 50 horse-power in crusher plant for crusher, ore-feeders, and belt-conveyor; a total of 625 horse-power.

Additional equipment includes a compressor plant comprising a 1,500 cubic feet a minute Rand-Ingersoll compressor supplying air at 110 lb. a square inch at the machine, and run by a 250-horse-power motor; two 6-foot G.E. induction-motor fans, running at 3,600 r.p.m., supplying air at 3 lb. a square inch for the flotation-machines; an auxiliary steam plant of two 50-horse-power return-tubular boilers and a small auxiliary compressor. The steam plant will be utilized this winter for heating the mill and adjacent buildings.

A machine-shop, 24 x 45 feet, equipped with a 22-inch MacDougall gap lathe, a 30-inch radial drill, a 30-inch shaper, a pipe- and bolt-threading machine up to 6 inches, emeries, and miscellaneous tools. A 15-horse-power motor provides power for all.

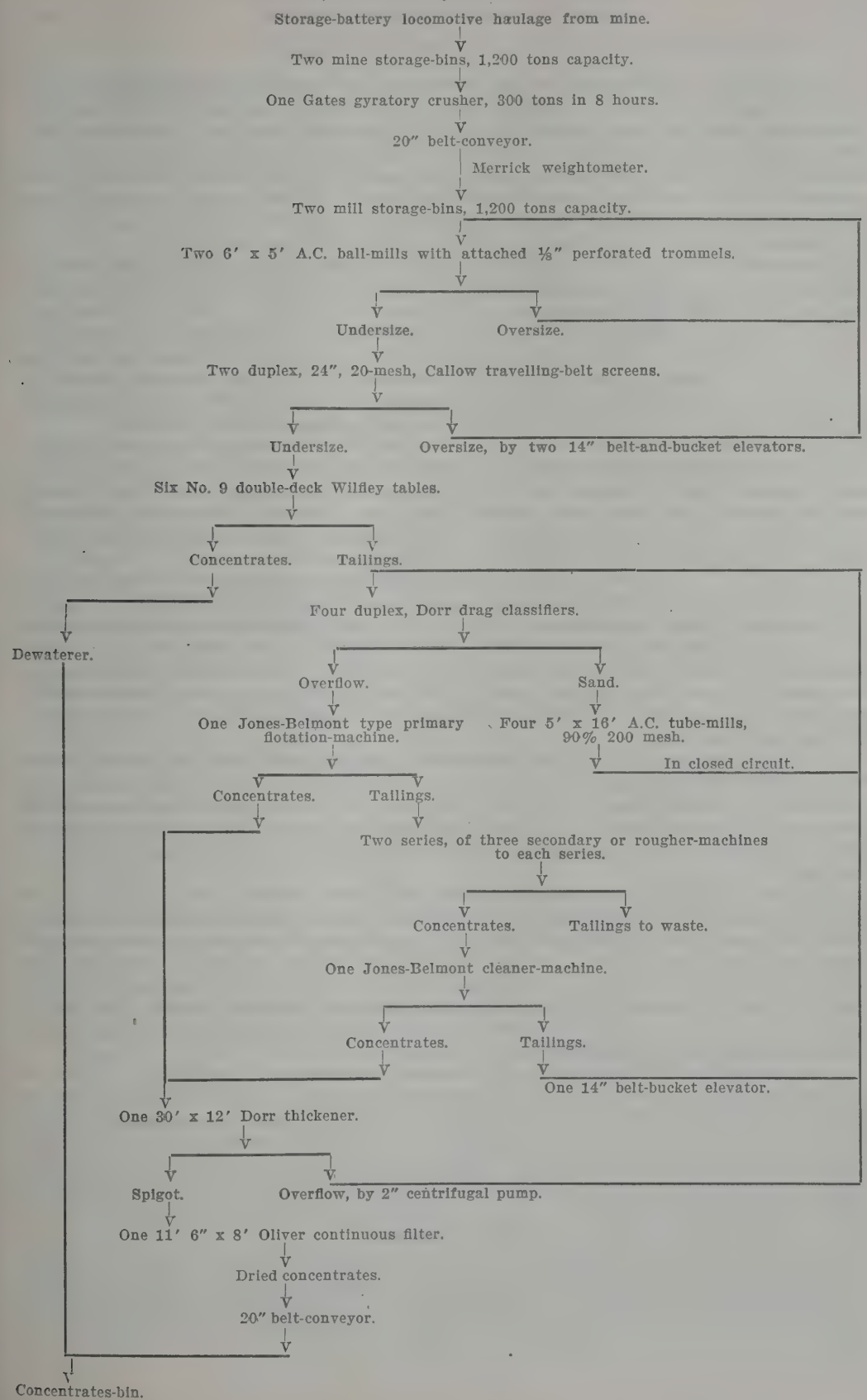
A carpenter-shop, 24 x 60 feet, equipped with a band-saw, a rip-saw, a swing cut-off, and a boring-machine, with a 20-horse-power motor.

A pump-station, 12 x 20 feet, equipped with two Krogh, No. 6, three-stage centrifugal pumps, each direct-connected to a 35-horse-power motor. These furnish two tanks at the head of the mill, from which a similar pump lifts the water to a tank above the working-tunnel for machine-water and also for high-pressure fire-protection system for the whole camp.

A well-furnished, steam-heated, four-roomed assay office is very conveniently located near the concentrator. It is 16 x 36 feet, with a sampling and grinding room furnished with a chipmunk crusher, a Brown pulverizer driven by a 5-horse-power motor, a large, double-muffle, oil-burning furnace, laboratory, and balance-room.

The company has provided its employees with the best of accommodations in every way. There are three two-story bunk-houses, 27 x 72 feet, divided into single rooms furnished with sanitary, double-deck, single iron beds; each floor with lavatory, shower-bath, and wash-room. Each bunk-house is steam-heated from a central plant and accommodates about sixty men. A two-story mess-house, 65 x 80 feet, has been completed, with a seating capacity of 250 men, fine accommodations for the mess-house employees on the upper floor, a large kitchen, a bakery, a root-cellar, and, with the installation of a refrigerating plant, will be thoroughly appointed in every respect. A two-story building, 36 x 84 feet, contains a store and large warehouse in the rear and the general and manager's offices in front, together with engineering and drafting department, and doctor's office pending the completion of the hospital. Numerous cottages have been built and a fine building for the accommodation of the staff is about completed. All the general buildings are steam-heated and electric-lighted.

Flow-sheet, Belmont-Surf Inlet Mines Co. Mill.



The company has under option at the present time three claims across the creek from their own holdings, and known as the Pugsley mine. The formation and conditions are identical, leaving little doubt but that it is the continuation of the *Surf Inlet* vein. Considerable work has been done on them in an upper tunnel in past years, and considerable ore was sorted and shipped from this work. The present work is being done in a lower tunnel supposed to be on a different vein from the upper one. The drift has been for the last 75 feet in a body of quartz averaging about 8 feet wide. I was informed that the average grade of the ore exposed so far is possibly a little better than the *Surf Inlet* ore. It looks very promising.

The staff at the mine is as follows: J. Fred Holler, general superintendent; Fred. H. Penn, mill superintendent; E. W. Hawkins, auditor; Chas. Bigney, mine foreman; A. Terwilliger, assayer; A. J. Smith, master mechanic.

Other Claims.

There are several groups of claims in the immediate vicinity of the Belmont-Surf Inlet property on which an appreciable amount of work has been done, and on which, I understand, the showings are very encouraging. At the time of my trip there had been several falls of snow; consequently I was unable to get up in the hills. I believe all the ore-exposures have the same general characteristics.

On Graham reach, between Princess Royal island and the mainland, a number of claims, about thirty altogether, are having the assessment-work kept up on them. The Granby Company did considerable work on a group located on Klekane inlet, but results did not justify taking over the property from the owners. Another group on the same inlet has recently been bonded to Seattle men, who are to start work within a reasonable time. Also on Khutze and Aaltanhash inlets are several locations, as well as a few on Swanson bay.

The Drum Lummon.

The Drum Lummon Copper Mines, Limited, is a Vancouver company, with head offices at 510 London Building, 626 Pender Street West, Vancouver, B.C. The holdings consist of fifteen claims, not Crown-granted, situated on Miskatlah bay, on the north shore of Douglas channel, about twenty-five miles east of Hartley Bay, the nearest port of call for the Coast plying boats. From Hartley Bay the property is reached by launch. Supplies are landed by the Coast freighters on a small floating wharf at the camp. In the event of the property developing into a large shipper, good docking facilities could easily be provided.

The workings are about a mile from the beach, to which a good wagon-road was built during the summer by the Provincial Mines Department. This was to have been utilized this winter for sledding ore to the beach, it being the intention of the company to hand-sort and ship the ore taken out in development-work. This looked quite feasible in the spring, but as development proceeded it was found that the nature of the ore changed to such an extent that it became inadvisable to try to sort it.

The ore is a glassy quartz carrying varying amounts of bornite, covellite, chalcocite, and some tetrahedrite and chalcopyrite. When the quartz was first encountered in the underground workings, a considerable amount of the high-grade copper sulphides was found in bunches which warranted sorting and shipping. Further development, however, proved the sulphides more scattered and in veinlets and small bunches, and therefore better adapted for milling. The quartz lies in irregular masses in a solid granite formation, through which are intruded light-coloured, probably acidic dykes, along which the mineralized solutions flowed, dissolving, and replacing the surrounding rock with the deposit of quartz and mineral.

Development-work to date consists of a crosscut tunnel started at the foot of the falls on Copper creek, which are 40 feet high. It cuts diagonally across underneath the creek, and was driven 365 feet before encountering the quartz which evidently forms the outcropping, and was continued a further distance of 60 feet towards the No. 2 vein. A drift was then run west, following the ore all the way for 106 feet, showing the ore to vary in width from 1 to 15 feet and probably averaging about 4 feet. Although there are bunches of barren quartz, the mineralization is fairly regular; the face is 10 feet wide, of good milling-ore which will concentrate about 10 into 1, making a high-grade copper-sulphide concentrate.

I was unable to see the surface on account of the snow, but, from Mr. Galloway's report, "the main surface showing is exposed in Copper creek about 375 feet above the falls for a length of over 200 feet, with an average width of 10 or 12 feet. Stripping and open-cuts along the cropping show bunches of copper sulphides throughout the quartz."

This surface showing and the exposure of its extension underground at a depth of 150 feet or more would lead one to expect the finding of extensive bodies of at least milling-ore. Further development is entirely warranted, and, in my opinion, a raise through to the surface from the east end of the ore-shoot, another raise from the present face, and the continuation of the drift on the ore would be the quickest and cheapest way of proving the property. At least a year's run of ore should be put "in sight" to justify the erection of a concentrator.

The present equipment consists of a Chicago Pneumatic Drill Company 6- x 6-inch compressor run by a 10-horse-power Witte gasolene-engine, furnishing air for a Hardsog stoper used in drifting. A 30-inch Buffalo blower belted to a 6-horse-power Foos Junior gasolene-engine has been set up at the mouth of the tunnel, and an 8-inch air-pipe from the fan to the drift furnishes ventilation. A well-equipped blacksmith-shop is conveniently located in the temporary compressor-house, a car and rails have been put in, and altogether it is a very efficient little plant for the work intended.

A few more thousand dollars spent as judiciously as heretofore might put the property on a producing basis. A test shipment of about 8 tons was sent out this fall.

Stewart Group. This group consists of five claims—*Minnie*, *Dave*, *Teckla*, *Ventla*, and *Chief*—owned by T. and D. L. Stewart and W. Vickers. They are situated about two miles up from the mouth of a small tributary creek, Pocklington creek, of the Kemano river, which flows into Gardner canal about twenty miles from its head, and are about six miles from tide-water. They are reached by canoe from Gardner canal to the Kemano river, from which a two-mile trail leads to the property.

No work, other than assessments, has been done. There are four veins. The "big vein" is a mineralized dyke lying in the granodiorites of the Coast range. Values in gold, silver, and copper are distributed throughout the dyke, and in places small shoots of ore are found of exceptional grade. Assays as high as $400 a ton have been obtained. The dyke is over 200 feet in width, of which 40 feet will probably assay $8 a ton in all values. The ore is suitable for concentration. The dyke can be traced over the *Minnie* and *Teckla* claims to an elevation of 3,200 feet.

The three other veins vary in width from 1 to 5 feet, and are of quartz carrying bornite and gold and silver values. Good water-power and plenty of timber for all purposes. The claims were not examined by me; however, the above information is entirely reliable.

The *Fortuna* and *Prudentes* claims are located on the north shore of Douglas channel, about fifteen miles from Hartley bay, and are owned by M. McMillan. Some work has been done on the claims on the beach, showing a mineralization of copper pyrites across about 20 feet. Unfortunately this work is under high tide and too meagre to give one much of an idea of the showing.

There are numerous claims located on Douglas channel and Gardner canal and their islands. Also along Grenville channel, on Pitt island, and at Kumeolon inlet are several magnetite-iron showings which, in the light of possible steel production, may warrant thorough investigation.

Porcher Island.

International Copper Co. This company has its registered office at Vancouver. A comprehensive report on the property was included in the Minister of Mines' Report of 1916 under the report of the Gold Commissioner for the Skeena Mining Division. Only the necessary assessment-work has been done since that time; consequently there is no information to add to that report. I went over it hurriedly, and found the showings and general conditions warranted the recommendation of the completion of the trail to the beach, about a mile and a half. I understand this work in now under way.

Mammoth Group. This group consists of eight claims—*Mammoth*, *Mammoth Nos. 2*, *3*, *4*, *5*, *6*, *7*, *8* (inclusive)—lying on the north end of Porcher island, about a mile from Refuge bay and about 200 yards from the wagon-road. The group is owned by Martin O'Reilly, W. J. Carrigan, and associates, of Prince Rupert. The vein is of quartz, with inclusions of bands of schist in places, contained in an argillite formation, and varies in width up to 38 feet. Strike of vein about east and west and dip of 60 degrees east.

Extensive prospecting-work has been done by way of surface stripping and several deep open-cuts across the vein. Unfortunately, the results, so far as values are concerned have been disappointing.

No. 1 open crosscut exposes a 22-foot vein of solid quartz slightly mineralized with iron sulphides. The owners reported no values here, so no samples were taken.

No. 2 open crosscut, 100 feet east of No. 1 cut, shows a width of 20 feet of solid quartz. An open drift was also run along the foot-wall for 30 feet in the quartz. Small amounts of pyrite are scattered here and there through the quartz, and a grab sample was taken from the broken material in the cut, selecting the pyrites with the view of finding out what a concentrate would assay. The sample assayed only a trace in gold.

No. 3 open crosscut, 1,000 feet east of No. 2, is 60 feet long and is 15 feet deep at the face where it cut out of the quartz. It shows the vein to be 38 feet wide at this point, sparingly mineralized with pyrites. A sample was taken across 18 feet of the better-looking material, which gave returns of a trace of gold only. A shaft was sunk 25 feet from the bottom of this cut, giving a total depth of 40 feet on the vein. It was full of water at the time of examination, but I understand was in barren white quartz all the way. The property, in my opinion, does not warrant further exploration.

Jitney Group. This group includes three claims—*Wolf*, *Laura F.*, and *Jitney*—owned by R. G. Frizzell and associates, of Prince Rupert. They are situated on Jap inlet, Porcher island, about half a mile from the beach. The vein is about a foot in width and is practically solid chalcopyrite, with a little pyrrhotite mixed with it. It lies in a broken-up, faulted formation of argillite, and is therefore very erratic in its occurrence. A tunnel has been driven for 30 feet, from which 4 tons of ore was taken and shipped to the Granby Company last year, giving net returns of $500. The ore is still across the bottom of the crosscut and should be sunk on. The broken-up region might in this way be penetrated and a more stable vein disclosed.

On another vein an incline shaft has been sunk about 15 feet, following the course of the ore. The vein is quartz carrying pyrrhotite and a little chalcopyrite, its tenor being evidently low grade. An open-cut about 25 feet farther along shows only a seam. The ore occurrence is too irregular and too low grade to be of any importance.

Patterson-Gillett Group. This group of claims, on the north-west end of Porcher island, on Belle range, near Useless bay, consists of three groups—East, South, and West. The East group comprises *Liza Jane*, *Jim Crow*, *Western Hope*, *Sophie B.*, *George R. Frac.*, and *Michael P. Frac.* The South group: *Sophie G.*, *Martha Ellen*, *Merry May*, *Hooligan*, *Little Dick*, and *Sky Pilot*. The West group: *Buck Eye*, *Gypsy*, *Jeannie*, *Eagle*, *Lucie*, *Edward C. Frac.*, and *John R. Frac.*

These groups were under option to the Belmont-Surf Inlet Mines early in the year and extensively prospected by them. They did a lot of surface stripping, disclosing six veins, or rather lenses, on the property. I did not examine the showings, but from first-hand information, maps, assay sheets, etc., I judge that the quartz-deposits occur in a movement or shear-zone in the granodiorite, extending for a width of over 400 feet. In this zone lie lenticular bodies of quartz running in a general east-and-west direction, with a dip to the south of between 70 and 80 degrees. As stated, there are at least six of these lenses disclosed on the surface, from which samples have assayed as high as $120 a ton in gold values, depending on the pyritization of the quartz. The lenses vary in width from 1 to 10 feet. Two short tunnels were driven under two of the most promising-looking outcroppings, but the continuation of the ore-shoot and its values proved unsatisfactory and work was discontinued.

From the extent of the surface showings and the values obtained from surface samples, it would seem that the property would bear further investigation.

There are a number of claims located on the south-western portion of the island, principally on Kitkatla inlet and the North arm, which I was unable to get to this year.

The same applies to prospects on Henry, Kennedy, Banks, and other islands, and around the mouth of the Skeena river.

GIBSON ISLAND.

Standard Group. There are six claims in the group—*Standard*, *Standard No. 2*, *Standard No. 3*, *Standard No. 4*, *Standard No. 5*, and *Standard No. 6*—covering practically the whole island. They are owned by Frank St. Amour and associates, of Prince Rupert. It is the old *Wild Goose* group reported on by W. E. Brewer in Minister of Mines' Report of 1914. Since that time the Granby Company has had a bond on it and did some development-work, consisting of a shaft 20 feet deep to the tunnel-level and a further depth of

30 feet below the tunnel. The tunnel crosscuts the vein for 65 feet, showing bands of quartz and limestone which will average very low in copper. From the bottom of the shaft crosscuts were run 30 feet each way across the vein, showing, as above, bands of quartz and limestone averaging 1 per cent. copper, 40 per cent. silica, and 20 per cent. lime. This being not up to requirements, work was discontinued. It is the intention of the owners to take the better-grade ore from the surface, hand-sort it, and ship it this winter.

Ecstall River.

About twenty-five miles up from the mouth of the Ecstall river, a tributary of the Skeena flowing into it at Port Essington, is an immense deposit of iron pyrites which has been held by Victoria interests for the past twenty years. Work was commenced on it at the time of its discovery, and to facilitate the transportation of the ore two surface trams were built, one from the tunnel to a bin at the camp, and another, three-rail, from the camp to the river, about 1,700 feet. I believe that several tons were shipped at that time to the chemical-works for the manufacture of sulphuric acid.

The deposit consists of a mass of pyrite lying in a schist formation enclosed in the granodiorites, the schist-belt being about a mile wide crossing the river. The ore-body conforms to the general strike and dip of the schist, and varies in width from 20 feet in the tunnel to 300 feet on the upper end of the showing. The old work consisted of a crosscut tunnel 100 feet in length and drifts 20 feet each way from it on the ore.

The property was bonded late in 1916 by Mr. Hinman, of New York, who did 750 feet of diamond-drilling in the ore-body early in 1917. The first hole was put down just up the creek from the mouth of the tunnel. It was 86 feet on an incline of 55 degrees, encountering the ore at 50 feet and continuing in it for 15 feet. This proves the ore about 50 feet below the tunnel-level. The second hole is about 200 feet above the falls, at an elevation of 475 feet above sea-level, and is 275 feet deep at an angle of 15 degrees. It struck the ore at 75 feet and was in it for the remainder of the hole. The third hole is about 300 feet farther up the creek from the second, is about 400 feet deep at an angle of 35 or 40 degrees, and is ore all the way. No definite assays are available, but I am informed that the total cores averaged about 1.75 per cent. copper and less than $1 a ton in gold and silver. I understand that the property is under bond to the Granby Company, who will diamond-drill it in the spring.

Another group of claims was staked during the summer across the Ecstall river from the above property. No work has been done on them as yet; the surface shows a strong mineralization of pyrite for a width of 20 feet.

The Grand Trunk Pacific Railroad.

Along the Grand Trunk Pacific from Prince Rupert to Terrace there are about forty claims located, and in the Kitsumgallum Lake region about fifty more. The only development-work I know of, other than the necessary assessments, in this section of the district was at Amsbury, on the *Autumn* group, under bond to R. O. Jennings, of Prince Rupert. Considerable work was done on this property in the way of stripping and open-cutting, with, I believe, very encouraging results. Some fine specimens of gold-bearing quartz were brought into Terrace during the summer from Thornhill mountain, but I have heard nothing further from subsequent development. Owing to limited time I was unable to get over any of this country.

Observatory Inlet.

Alice Arm. A thorough examination of and report on the mining area tributary to the Kitsault and Illiance rivers was made by Professor J. M. Turnbull, and is contained in the Annual Report of the Minister of Mines for 1916. Assessments and prospecting-work since that report have been highly encouraging, especially on the upper Kitsault, where several prospects are showing up exceptionally well.

With the completion of the railroad for twenty-two miles and the continuation of the main trail from rail end to the head of the river and short side-trails up the main creeks, this section will be in good condition to develop several shippers.

Dolly Varden. This mine, under the management of R. B. McGinnis, is being brought to the producing stage as fast as possible. The principal work this year has been the construction of the railroad, driving the main working-tunnel, and further exploration of the ore-shoots by means of diamond-drilling.

The railroad-construction, under contract to the Taylor Engineering Works, of Vancouver, made good progress, and it was estimated that rails would be laid for fourteen miles before winter would necessitate suspension of work. The grade is finished for about twenty miles, but abnormal weather conditions prevented the finishing of more than about eight miles of track. It was the intention of the company to ship about 100 tons a day, and to that end a sleigh-road was built from the mine to the railroad and contracts practically completed for the hauling of the ore; these plans, of course, had to be abandoned, and the property is closed down for the winter.

The main working-level of the mine has been driven 650 feet, and the ore-shoots, developed on the three levels above, partially defined. The ore-bodies have been proven by diamond-drilling for 150 feet below this main level, giving a total depth of ore of about 500 feet. The big tonnage available in the *Dolly Varden*, together with the ore-bodies explored in the *Wolf* property, also owned by the Dolly Varden Mines Company, are ample justification for the extensive plant to be installed and the railroad now under construction. The plans include an hydro-electric power plant of 700-horse-power capacity, to be developed from Trout creek, a tributary of the Kitsault river flowing into it about three miles above the mine. The company proposes damming the first Trout lake to make a reservoir of 17 acres, also the next three lakes above, which will give an additional storage area of 20 acres. Plans have been drawn for a concentrator with a capacity of 150 tons in 24 hours, suitably located to treat the ores from both the *Dolly Varden* and the *Wolf* mines. The flow-sheet includes a preliminary water-concentration and a final separation by oil-flotation. Tests of the process on the ores have given a recovery of 94 per cent. of the values and a ratio of concentration of 4 or 5 into 1.

There is plenty of shipping-ore in sight, and next year will in all probability see this property an extensive shipper.

The owners of the *La Rose* group of two claims intended mining, hand-sorting, and shipping ore from their property this winter had the railroad been in operation. Additional work has been done in the tunnel since last year's report, its length now being 130 feet. The open-cut and tunnel exposes an ore-shoot about 50 feet long, raking into the hill. There is about 30 tons of good ore on the dump and a few hundred tons might easily be mined. A sample of shipping-grade ore taken from the dump gave 244 oz. silver, 18 per cent. lead, and 12.4 per cent. zinc to the ton.

A 100-foot tunnel is being driven this winter on the *David Copperfield*, starting just below the railroad-track. Described in last year's report and nothing done since.

Nothing has been done on the property of the Molybdenum Mining and Reduction Company, but, from what I can learn from C. P. Riel, the manager, it is their intention to commence operations immediately.

Further investigation of this section was prevented by the early snowfall.

Granby Bay.

The Granby Consolidated Mining, Smelting, and Power Company at Anyox, B.C., has had a very satisfactory year in every respect. The tonnage of ore mined and smelted was about 784,000 tons, averaging 2.12 per cent. copper, the gold and silver amounting to approximately $240,000. The tonnage of low-grade quartz ore mined and used as flux was about 37,000 tons, or a total of 812,000 tons. Improvements in all departments and the erection of a 100-ton experimental concentrator puts the company abreast of any on the continent. The company's progressive policy in keeping engineers in the field has stimulated the prospector and put mining confidence in the Coast District.

The Granby Consolidated Mining, Smelting, and Power Company's operations at Anyox are the most important on the Coast of British Columbia, and, as such, merit unusual attention. For this reason I have taken the liberty of quoting *in extenso* a series of three articles descriptive of the company's mine and smelting plant contributed by W. A. Williams, the general superintendent of smelting operations of the Granby Company, published in the *Engineering and Mining Journal* under dates of October 13th, 20th, and 27th, 1917:—

"*The Mine.*

"The head offices for the Western organization of the Granby Consolidated Mining, Smelting, and Power Company are at 813 Birks Building, Vancouver, B.C. The general manager and

managing director, F. M. Sylvester, has his office at Vancouver, as has G. W. Wooster, treasurer of the company, who is also head of all accounting departments. In these offices are also the purchasing departments of the mines, smelting-works, and stores. Directly under the general manager is the superintendent of mines, O. B. Smith, who has charge of all mines and mining-works of the company, and W. A. Williams, superintendent of smelters, who has charge of the two smelting plants and all metallurgical work. In direct charge of the smeltery at Anyox is A. J. Bone, to whom I am indebted for the major part of the metallurgical data in this article. I am also indebted to E. E. Campbell, who is in direct charge of the *Hidden Creek* mine, and who has kindly furnished me with the following interesting data relating to his department.

"The smelting, converting, and mining departments are each in direct charge of a general foreman, under whom are the shiftbosses. All other departments are in charge of a general foreman, assistant, and sub-bosses. There are about 1,000 men employed at the Anyox unit, 450 at the mine and 550 in all other departments. Labour of all nationalities is employed, the majority of men being British subjects.

"The most important events in the history of the mining industry of northern British Columbia to date have been the acquisition and development of the *Hidden Creek* copper-mines, the erection of a smeltery to treat the ores, and the building of a town by the Granby Consolidated Mining, Smelting, and Power Company, Limited. This undertaking has had a stimulating effect both on prospecting activity and mining development along the whole northern coast.

"Granby bay, upon the north-west shore of which lies the town of Anyox, with its mines and smeltery, is a deep-water landlocked bay about four miles and a half long by three-quarters of a mile wide, and is on the western shore of Observatory inlet, thirty-five miles from its entrance. The distance from Prince Rupert is 110 miles and from Vancouver 550 miles. The surrounding mountains are steep and rugged, covered with timber. The mountains have been heavily glaciated and on the crests many glaciers can be seen at all seasons of the year. The Burniston range of mountains lies to the west, rising to an elevation of 5,700 feet and separating Observatory inlet from Portland canal. Four creeks flow into the bay, having their source in this range of mountains—namely, Hidden creek, Falls creek, Bonanza creek, and Glacier creek. The tide has a maximum rise and fall of 23 feet 4 inches. The main dock, which is 800 feet long by 50 feet wide, is double-tracked and has three sets of travelling ore-bunkers and unloaders. A 50-ton derrick is also installed for the handling of heavy machinery. Dock No. 2 is specially constructed with receiving-bins, and belt-conveyors convey the material from the outer or unloading wharf to these bins. A suitable track system upon which switch-engines operate is arranged to handle the tonnage easily and connects all bunkers and wharves with the main line. The tonnage handled over the wharves during 1916 was 316,915 tons, consisting of coke, ore, lime rock, and merchandise. At present there is under construction Dock No. 3, which is a continuation of Dock No. 1, and will be 590 feet long and have two sets of travelling ore-bunkers. In the construction of the docks creosoted piling has been used throughout, spaced 7 x 7 feet, heavily braced, and with 12- x 12-inch caps, 4-inch stringers, and 4-inch decking. The Granby Company is affiliated with the Coastwise Steamship and Barge Company, of Seattle, to facilitate the handling of the large volume of freight and to have a reliable and regular means for transportation of supplies. In this service there are engaged a fleet of three cargo-steamers, two tugs, eight barges, and two scows of 1,200 tons capacity, carrying coke from Tacoma and Vancouver island, general freight from Seattle and Vancouver, ore from outside properties of the Granby Company and custom shippers, lime rock from Swamp point, and quartz from Maple bay, on the Portland canal. In addition, the Granby Company owns a number of smaller tugs and launches for local work. Apart from this service, Anyox is the northern terminal for the three main Coast steamship lines—namely, the Grand Trunk Pacific Steamship Company, the Canadian Pacific Railway, the Pacific Coast Steamship Company, and the Union Steamship Company. The companies operate each a weekly mail and passenger steamship service on a 40- to 50-hour schedule with Vancouver and Victoria, thus furnishing mail service three times a week.

"The town of Anyox is built on the ground lying between the wharves, the smeltery, and the mine. The streets are laid out to conform to the contour of the ground, and at night are well lighted by electricity. The company maintains a modern forty-five-room hotel, with steam heat, hot and cold water, and telephone service in every room.

"A completely equipped hospital with the latest X-ray apparatus is in charge of three physicians and a staff of nurses, so that every provision is made for taking care of sick and injured. Moving-picture theatre, dance-hall, pool and billiard rooms are available for the recreation of the inhabitants. The company has a complete department store, with grocery, dry-goods, men's furnishings, hardware, furniture, drugs, and meat departments, a modern refrigerating plant, and an up-to-date café. The prices charged are reasonable and about on a par with the prevailing prices of commodities in Vancouver. There are two schools in charge of three teachers to provide for the education of the employees' children, while three churches minister to the spiritual welfare of the community. For the accommodation of the single men the company has built two two-story concrete fire-proof rooming-houses. In these rooming-houses there are no hallways, every room having an outside door. The buildings are modern in every respect, having bath-rooms, shower-baths, and lavatories; and each room has hot and cold water, steam heat, and electric light. The boarding-house, which seats 216 men, is a concrete building with all the latest improvements, such as cold storage, bake-shops, and laundry. A high standard of food is maintained, and board is charged for at the rate of $1 per day and rooms $5 per month.

"Since starting active operations in 1912, a new mine town has been built, and no money has been spared to provide the most modern conveniences for the comfort of the employees. This consists essentially of a change-house, mess-house, bunk-house, and fifty cottages. The change-house is a three-story frame building with concrete floors on the first and second stories. The first floor is occupied by a locker-room containing 300 steel sanitary lockers, a wash-room where fifty men can wash at one time, a water-closet and urinal room, twenty-four shower-baths, four porcelain tubs, and a drying-closet for clean clothes. The second floor consists of a pool-room, a library and reading room, a shift-boss's office, an emergency hospital with four beds, and a doctor's office. The third story consists of a dance-hall with the necessary cloak-rooms. This building is heated by an Arco sectional hot-water heater. A hot-water tank holding 1,500 gallons attached to a separate heater provides hot water for the shower-baths.

"The mess-house is similar to the one near the smelting-works, except that it is of wooden-frame construction. The bunk-house consists of three wings and is capable of holding 400 men. The heating plant is similar to the one in the change-house. The cottages are all of modern construction, and each is equipped with porcelain bath, wash-basin, and water-closet. They also have hot- and cold-water connections and electric lights. The importance of the sanitary arrangements of the town, including sewer system, incinerators for garbage-disposal, and an adequate water system, is evidenced by the fact that sickness caused by the lack of these things is unknown.

"The *Hidden Creek* mine is a mile from tide-water and at the highest elevation is 900 feet above sea-level. The rocks in which the *Hidden Creek* ore-bodies occur consist of highly altered sedimentaries, including slates, schists, and limestones. These rocks have been steeply tilted and in general lie at angles varying from 45 to 90 degrees from the horizontal and dip to the north. In the vicinity of the ore-bodies there is evidence of intense folding accompanied by faulting, both of which probably played a part during the period of deposition that formed the various ore-bodies. This sedimentary area is cut by a great variety of dykes, offshoots of the granitic intrusion flanking the area to the west and south. Some of these dykes show no evidence of having been the source of an enrichment of the ores through which they cut, whereas others show a decided evidence of their influence in ore enrichment.

"In the mineral-zone area slates are found on the southern and eastern side more or less in contact with ore-body No. 1. North and west of the slate is a zone 100 to 400 feet wide, consisting of beds of siliceous material interbedded with occasional bands of limestone. In this zone are found ore-bodies Nos. 1, 4, and 5. To the north-west of this siliceous zone is an area of highly altered schist showing some epidote and chlorite, and in this area ore-bodies Nos. 2 and 3 occur.

"Ore-body No. 1, lying directly to the north of and in contact with the slate area, has a width varying from 100 to 250 feet, with an established length of about 1,500 feet. The general dip of this ore-body is about 75 degrees north-west, although in places, in following down the slate wall, the dip is reversed. This ore-body outcrops at an average elevation of 900 feet, and ore is proved to extend to sea-level.

"Ore-body No. 5, in the same general zone as that containing ore-body No. 1, is a lenticular shoot which was discovered by the diamond-drill and does not outcrop. It has a north-south strike and pitches steeply to the north.

Glory-hole, Granby Co.'s Mine, Anyox.

Stoping, Granby Co.'s Mine, Anyox.

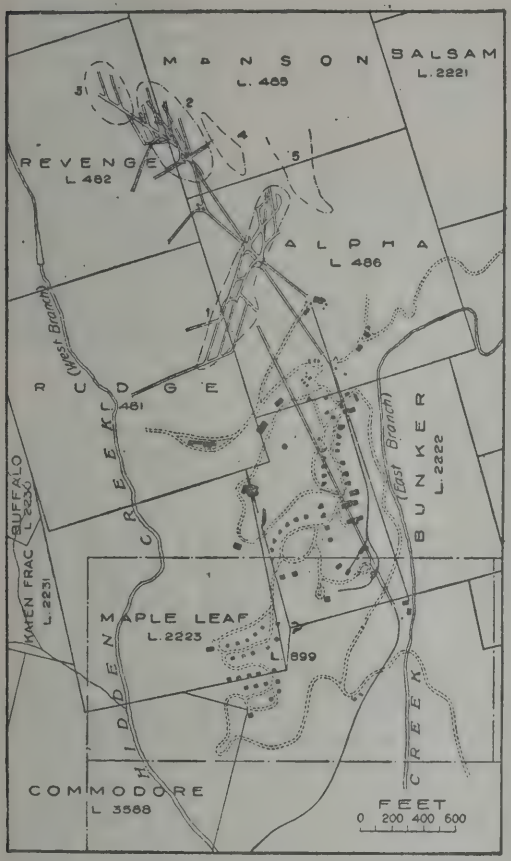


FIG. 1. COMPOSITE MAP OF HIDDEN CREEK MINES SHOWING RELATION OF OREBODIES NOS. 1 TO 5

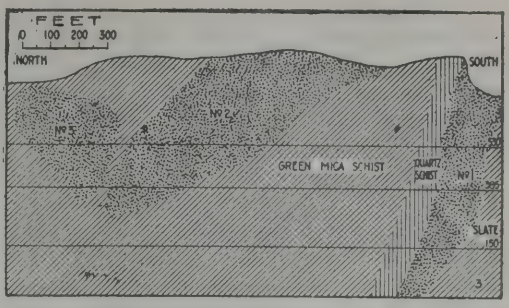


FIG. 3. GENERAL NORTH-SOUTH SECTION OF HIDDEN CREEK OREBODIES

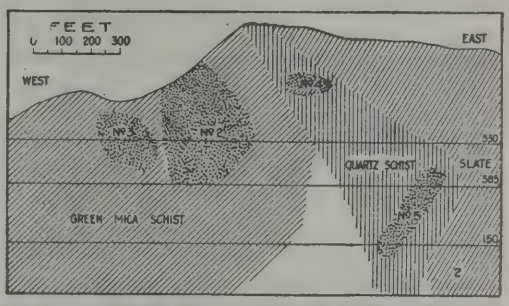
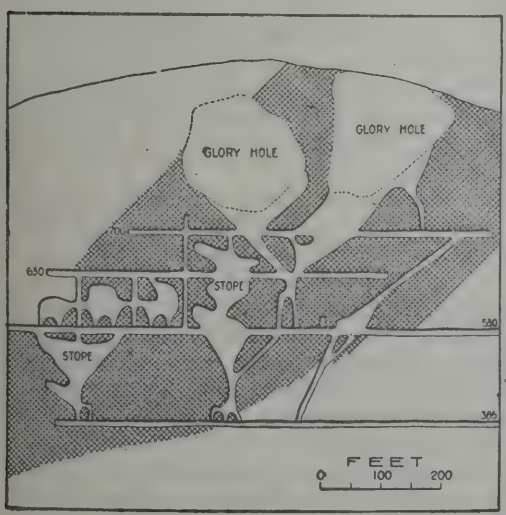
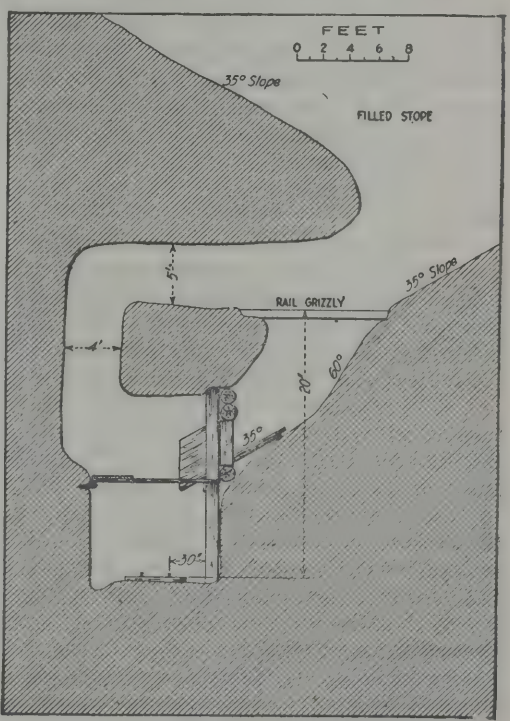


FIG. 4. EAST-WEST SECTION, HIDDEN CREEK OREBODIES





"Ore-body No. 4 lies between ore-bodies Nos. 5 and 2, and is also included in the siliceous and lime-bed area. This ore-body does not outcrop and, like ore-body No. 5, was found with the diamond-drill.

"Ore-bodies Nos. 2 and 3 occur in the schist area and both have an extensive outcrop. The average elevation of the outcrop of these ore-bodies is 800 feet, and their continuity is established down to an elevation of 350 feet. Ore-body No. 2 is a lenticular body about 400 feet wide, 300 feet thick, and 700 feet long, outcropping at the southern end and pitching to the north at about 45 degrees. Ore-body No. 3 is much smaller and is situated north-west of No. 2 and geologically in the same area.

"The ore constituting ore-bodies Nos. 1, 4, and 5 is essentially a massive sulphide, although in some parts of these ore-bodies siliceous zones with disseminated sulphides are found. Ore-bodies Nos. 2 and 3 have disseminated sulphides in a schistose gangue, with an occasional small lens of massive sulphide ore. There is little evidence of oxidation or surface enrichment in the ore-bodies, and unaltered sulphides appear at the surface. In Table II. is shown a general analysis of the ore-bodies established by underground development-work and diamond-drilling. In mining, calculated proportions from each ore-body are taken to make a mixture most desirable for smelting.

"*Table II.—General Analysis of Hidden Creek Ores.*

	Cu.	Insol.	SiO_2.	Fe.	CaO.	S.	Al_2O_3.	MgO.
No. 1	2.37	25.8	22.4	29.6	4.7	30.0	5.1	1.3
No. 2	2.24	40.7	33.2	25.6	3.0	18.0	10.8	4.0
No. 3	1.82	48.8	40.8	21.6	1.5	7.9	11.5	6.6
No. 4	1.52	12.2	9.2	37.0	9.8	30.5	3.0	0.8
No. 5	3.02	16.1	14.8	34.0	5.9	33.3	1.6	0.0

"The *Hidden Creek* mine in its initial development was opened up by six tunnels—namely, the 150, 230, 385, 530, 630, and 700, which numbers are identical with the respective elevation of each tunnel-level above sea-level. Fifty thousand feet of diamond-drilling was done prior to and contemporaneously with this first tunnel-work. The diamond-drill cores established the general outlines of the ore-bodies, and the tunnels served to develop them for mining at the most advantageous points. The haulage-tunnels are the 530, 385, and 150. The 630 and 700 were driven to prospect the ore-body No. 2 and are now used only as stope manways. The 230 level is used as a crusher-level only. On this level ore from the upper levels is crushed and dropped directly into pockets extending to the 150 level, where it is drawn into railway-cars for shipment to the smeltery.

"Mining consists of open-stope or milling methods underground, and 'glory-hole' or open-cut work near the surface. Stoping was started first on the 530 level, extended to the 630 and 700 levels, and thence to the surface. These first stopes served as pockets from which the ore broken above was drawn. By extending several stopes to the surface and widening them at the top, two glory-holes of considerable size have been formed and are now being worked in ore-body No. 2. An equal number has been developed in ore-body No. 1.

"The ore drawn from chutes on the 530 level is transferred to pockets extending to the 385, from which it is delivered to the crusher-bins. Several raises have recently been completed from the 385 level, into which all of the ore from the glory-holes in ore-body No. 2 runs direct, thus eliminating the transfer on the 530 level.

"A departure from the general mining methods is being made below the 385 level, which do not outcrop and have a heavy overburden of rock to carry. In such places a system of shrinkage stope is being developed which will give more support to the back and walls and make working conditions safer. The method adopted in a section now under way consists of shrinkage stopes 125 feet wide, with a length equal to that of the ore-body. Vertical pillars, 40 to 50 feet wide, also across the ore-body, are left between stopes.

"A manway rise is driven through the centre of each pillar to the surface, or to other workings opening to the surface. These manways serve for ventilation purposes and as entrances to the stopes. Manway drifts are driven from the pillar raises into the stopes at vertical intervals of about 30 feet progressively as the raises are advanced upwards. Drifts are driven under the stopes, and chutes are distributed so as to draw evenly the ore broken in excess of requirements for headroom in the stopes. Each chute is equipped with a bulldozing

chamber cut in the solid and without timber, as shown in an accompanying illustration. The manway to this chamber is equipped with an air-line for use in drilling boulders.

"*Electric Haulage in Granby-type Mine-cars.*—The present haulage system is equipped with 75-cubic-foot, 24-inch gauge, Granby-type cars, of which there are fifty-four in use, and five 6-ton, 500-volt Westinghouse bar-frame locomotives. On account of the recent increase in smelting capacity a change is being made in the haulage system on the 385 level, which handles the total output to the crusher-bins. Thirty cars of 140-cubic-foot capacity and 36-inch gauge, and also two 12-ton Westinghouse locomotives of the bar-frame type, for pulling trains on the main line, are being installed; and two of the 6-ton locomotives are being altered to fit the wide gauge for switching purposes underground. The rails used with the light equipment weigh 30 lb. per yard, while the new track is being laid with 45-lb. rails.

"A duplicate crushing plant has been provided, so that either plant can take care of the maximum output. Crushing plant No. 1 is installed underground on the 230 level. Three crude-ore pockets extend from this level to the 385 and receive the run-of-mine ore from that point. This ore feeds directly into the crusher, from which it can be diverted into either of two pockets extending to the 150 level. The Bacon Farrel crusher used in this installation has a solid-cast frame and a crusher opening 36 x 42 inches. The crusher is belted to a line-shaft direct-connected to a 150-horse-power, 2,000-volt, Westinghouse alternating-current motor. Crusher No. 2 is installed at the surface below two ore-bins of a capacity each of 250 tons. The ore from these bins is fed directly into the crusher, from which it goes into pockets also extending to the 150 level. The crusher at this point has a cast-steel sectional frame with a 30- x 42-inch jaw opening, and it has a drive similar to that of the No. 1 crusher. The ore is crushed to 8 inches, which is the size required by the smelting-works.

"*Safety Committee Organizations.*—The mine and the smelting-and-mechanical departments have separate safety organizations all working along the same lines. The safety-first committee appointed to promote safety held its first meeting on April 3rd, 1916, and has been followed by regular monthly meetings since. The committee is composed of the heads of the various departments, the superintendent acting as chairman. Each department head appoints a sub-committee of the men to act under him. Meetings are held every month, the personnel of these committees being changed every two months. Recommendations of the sub-committee are referred to the executive committee for approval. All workmen are urged to point out dangerous practices or unsafe equipment, and to offer suggestions for their rectification, which can be made direct to any committeeman, safety engineer, department head, or written out and placed in the 'suggestion-box' provided for that purpose. Sub-committees since the inception of the campaign have made 334 suggestions, fifty-four being placed in the boxes, and a great many to the safety engineer.

"First-aid instructions have been given to sixty-five men, seventeen of whom have been awarded the Class A, St. John ambulance certificate. There are seven first-aid stations fitted up with all the necessary equipment, including stretcher, blankets, etc., and at the smeltery there is a type B pulmotor. It is aimed to render first aid to the injured men before they are sent to the hospital. A man gets only one dressing in the first-aid station, and must go to the doctor for future dressings.

"Safety bulletins have been used extensively in educating the men, fourteen boards being located in conspicuous places, and the literature posted being changed every two days. Letters on safety have been sent to the homes of all married employees every month or six weeks. Sub-foremen and straw bosses receive letters once in two months, aiming to impress them with the important part they are able to play in safety-first work. Danger-signs are placed at dangerous places, such as railway crossings, powder-houses, oil-tanks, and on all high-voltage wire, transformers, etc. Rules have been compiled and are enforced wherever possible. There was a 33-per-cent. reduction in time lost per accident over that of the previous year. The three months of January, February, and March, 1917, showed a reduction in accident cases, minor and major, reported for treatment at the hospital, of 64 per cent. over the same period for 1916. The periods compared are the most fair that could be taken, conditions being practically identical.

"Fire-prevention received the attention of the safety organization also. Warnings are posted freely throughout the town and works, and a large number of fire dangers have been eliminated. Pyrene protection has been installed in every building in the camp. A volunteer

fire department has been organized. The general results of the campaign are undoubtedly good, and the ensuing years promise a further large reduction in the number and severity of accidents.

"*Smelting-works.*

"The smelting-works at Anyox, B.C., of the Granby Consolidated Mining, Smelting, and Power Company was built primarily to treat the ores from its *Hidden Creek* mines, but also with a view to handling other Granby and custom ores. Anyox is on the western shore of Observatory inlet, in north-western British Columbia; the mines and the smelting and power plants are all within a comparatively short radius of the town. There are five distinct ore-bodies developed by the Granby Company, known as Nos. 1, 2, 3, 4, and 5; they are irregular copper-sulphide ore-bodies in metamorphosed sedimentaries—schists, slates, and limestones—cut by dykes. Oxidation has been only slight and sulphides are found where the ore-bodies come to the surface.

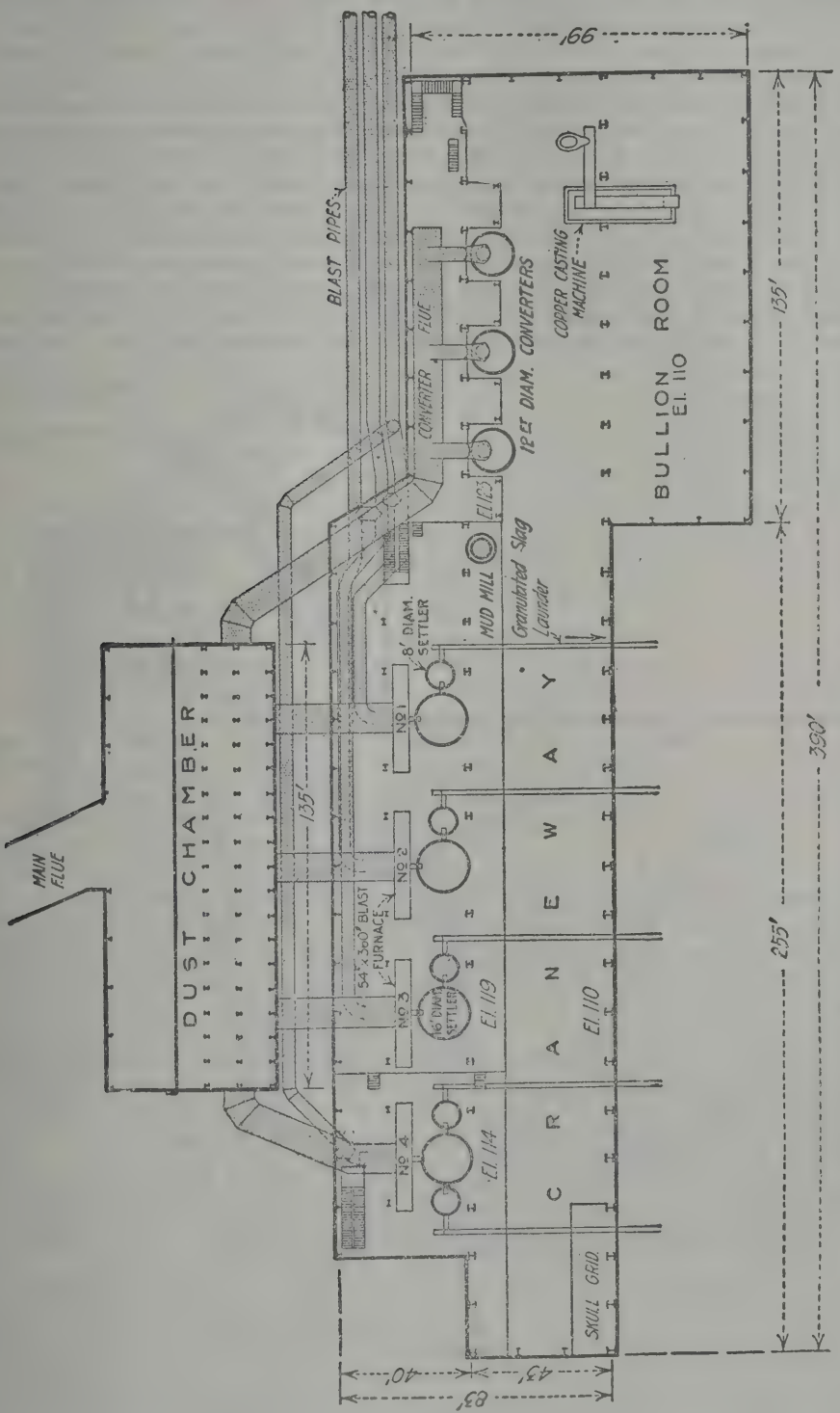
"When selecting the site for the plant, the three main considerations were: (1) Plenty of slag-dump room for future years; (2) sufficient ground for future enlargement of plant; and (3) availability of water-power. Since the mines, smeltery, and wharves had to be connected by railroad, minimum up-grades were provided from wharves to smeltery, and practically level grade from the mines to the smeltery. It is estimated that there is room at the site selected for 12,000,000 to 20,000,000 tons of granulated slag. On account of the steep, glaciated hillsides, all natural benches are narrow, and the one selected for the site was as wide and long as could be found in this vicinity. Falls creek, at the north end of the site, presented the only near-by water-supply available. An economical power arrangement was obtained by installing a high-pressure water-pipe line from the dam to the power-house, which is at the foot of the hill near the mouth of Falls creek. All timber and underbrush, and a layer of muskeg covering the surface of the ground to a depth varying from 2 to 8 feet, were removed, and all footings placed on rock or on a glacial-gravel foundation.

"From the plans it will be noted that the ore-bins are not directly back of the furnaces, but are situated to one side, making an angle of about 80 degrees with the line of the furnaces. The charge-trains enter the feed-floor between the furnaces and converters, and the sampler is at the end of the bins next to the furnace building. The arrangement is not exactly ideal, but, because of the length and narrowness of the bench, it was the best that could be designed under the circumstances, and in practice it has worked satisfactorily.

"The furnaces and converters are in one building. The building is a steel structure with wooden roof, having an asbestos covering. It is 80 feet wide and 390 feet long, having concrete retaining-walls both in front of and back of the furnaces. The furnace-floor elevation is 119 feet and converter-floor elevation 110 feet above sea-level. A common crane runway 40 feet wide serves both departments upon which operates two Niles, direct-current, 500-volt, 40-ton, quick-acting cranes with main and auxiliary hooks of the same size. In the southern end of the building there were originally three furnaces. Later a fourth was added.

"The long axes of the furnaces are in line and parallel to the long axis of the building. The furnaces are of the rectangular-bosh type. The original three furnaces are 50 x 360 inches at the tuyeres, which are of 4 inches diameter and spaced 10.8 inches from centre to centre. There are two tiers of jackets. The lower jackets are 10 feet 6 inches high and 4 feet 6 inches wide and rest on heavy, water-jacketed base-plates; the upper jackets are 6 feet 8 inches high and 5 feet wide. The furnace is supported by heavy-steel H columns and 20-inch box-type mantel-beams. These are exceptionally well braced with heavy I-beams and girders. Jackets and tuyeres are of the welded type. The latter are of the Anaconda type with ball-and-socket joint. Furnaces Nos. 1, 2, and 3 measure 13 feet 2 inches from the tuyeres to the top of the upper jackets, while on No. 4 furnace, which has a third tier of jackets, this distance is 18 feet 2 inches, the extra 5 feet of height having been gained by lowering the settler floor. With this exception No. 4 furnace has the same measurements. Steel water-jacketed spouts, having a trap of 15½ inches, discharge over a bronze-nose jacket and give excellent service. Cooling water which is ice-cold the year round ensures the permanence of a thick, protective crust which is never 'hulled' through a campaign. The furnaces work under a 45- to 50-oz. blast and use 900 cubic feet of air per minute per foot of furnace-length.

"Each furnace is served by one 16-foot and one 8-foot settler having a 9-inch chrome-brick lining. The brick stands 9 inches away from the shell, the intervening space being filled with

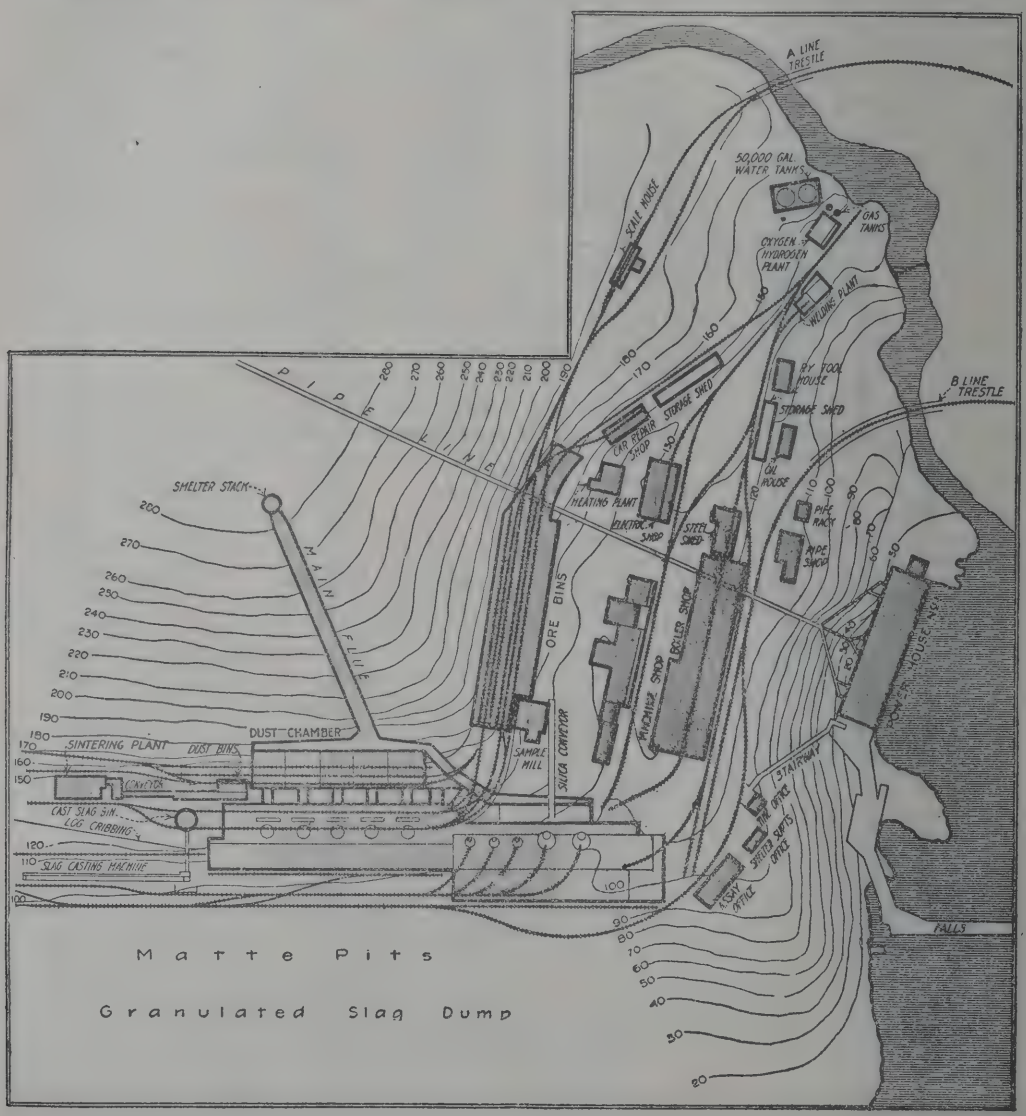


Plan showing arrangement of blast-furnaces and converters at Granby smeltery.

lightly tamped backing, consisting of common bats crushed to ½ inch, from which the fines have been removed by screening. At the tap-holes, of which there are two, 18 inches of chrome brick is used without backing. The tapping-block is a magnesite brick having a 1-inch hole, embedded in a plate of converter copper. Due to the frequency with which matte is tapped, a tapping-bar is rarely needed. Aside from renewing brick at the tap-holes, which is necessary about once a month, very little repairing or lining is necessary. The cooling spray has been abandoned. Slag flows from the 16-foot settler to the 8-foot settler, thence to the granulating-launders. An appreciable amount of matte is recovered from the second settler. Granulated slag is deposited on the dump through launders lined with slag plates and having a fall of ½ inch to the foot.

"The feed-floor is at an elevation of 145 feet. The furnace-tops are constructed of heavy, cast-iron lintels and columns, all well bound and braced. The side walls and ends are bricked with 18 inches of red brick, and the semicircular steel hood is lined with firebrick. A steel down-take, 9 feet in diameter, leads the gases from the furnace to the dust-chamber.

"Charge-tracks, of 3-foot gauge and 56-lb. rails, run on either side of the furnace and continue out of the building to the converter-slag bins and sintering-plant bins. The Anaconda



type of steel charge-cars of 5-ton capacity is used. Trains of twelve cars each are hauled by a 12-ton, Baldwin-Westinghouse, electric locomotive. There are two of these trains in service. Cars are dumped by overhead, horizontal, compressed-air cylinders running on trollies, two to a furnace, one on each side.

"The manner of charging the furnaces is their most striking feature. The charging-space is divided into three sections by the columns supporting the lintels. The original bevel plates were removed and in their place were built hoppers with horizontal bottoms and cast-plate sides. They are 2 feet 6 inches deep and the bottom plate overhangs the top of the jackets 9 inches. At the back of the hoppers, held under the charge-floor, are heavy cast-iron ploughs operated by compressed-air pistons in cylinders working under 100-lb. pressure. The capacity of each hopper is 5,000 lb. of charge and each section has two, making twelve in all per furnace.

"When the charge is needed in the furnace, air is turned on and the plough pushes the charge from the hoppers into the furnace. Any hopper can be operated independently and the amount charged at any one time can be controlled. This arrangement permits charge-trains to be dumped and released without having to wait for the charging of the furnace. In this system of feeding the proper overhang with the proper drop of the ore have to be determined to get the right distribution of coarse and fines, so that the furnace may run properly. The amount of drop and overhang depend upon the character of the ore and whether or not it is desired to feed to the middle or to the jackets. It is possible to place the charge in any desired place and to favour any particular section of the furnace. The main idea was not original with the Granby Company, but was taken from Sticht's description of the smelting practice at Mount Lyell. The Granby Company worked out the mechanical details to suit its own construction only. The idea was first tried out on No. 4 furnace, and as the experiment showed a tendency toward smoother running of the furnace and kept it in better shape than any of the others, it was decided to adopt this feed system on the three remaining furnaces.

"In the northern end of the building there are three 12-foot, Great Falls type, electrically operated converters, each having twelve tuyeres of $1^{15}/_{16}$ inches diameter. Punch-rods are upset to 1½ inches and tuyeres reamed with 1⅝-inch bar. Blast-pressure is 13 lb. and air-consumption from 6,000 to 7,000 cubic feet per minute per converter. Ladles of 85-cubic-foot capacity are used, but are being replaced by ladles of 120-cubic-foot capacity. Converter-slag at present is poured into the settlers of furnaces smelting the ore charge. Charges of copper weigh about 8 tons and are cast into flat, bevel-edged bars measuring 30 x 18 x 3 inches. A straight-line casting-machine is used which dumps the bars into a cooling-tank, after which they are conveyed to the casting-floor. The blister-copper averages 99.25 per cent. Cu.

"The slag-skull grid is at the top of a steel bin having a sloping bottom and chutes for discharging the contents into railroad-cars. The top of the bin measures 12 x 45 feet, and is laid with 12-inch I-beams running lengthwise and supporting 12-foot lengths of 90-lb. rail laid crosswise and spaced 7 inches apart. Skulls are dumped on this grid, and pieces not sufficiently broken by the fall are further reduced by hand. Part of one man's time is required for this work.

"*Character of Hidden Creek Ores.*—About 75,000 tons of ore is smelted per month, of which the *Hidden Creek* mine at Anyox furnishes roughly 65,000 tons; the remainder of the ore comes from outside sources. Nearly all the *Hidden Creek* ores smelted to date have come from No. 1 and No. 2 ore-bodies.

"Ore-body No. 1, as developed to date, appears to be nearly neutral as regards Fe and SiO_2 requirements for smelting, though the output to date has been less siliceous than the average of the ore-body as sampled. An analysis of current production from ore-body No. 1 is given in the table on page 57. The Fe occurs principally as pyrite, most of the SiO_2 as free quartz, and CaO is present mainly as calcite. Some of the combined SiO_2 is present on account of the admixture of waste rock which cannot be avoided without hand-sorting. No. 1 ore carries a considerable proportion of fines; screening tests show over 25 per cent. passing a ½-inch screen. An intimate mixture of gangue and sulphides is typical, the particles of each being often granular and loosely cemented together, though this condition is not universal, as both sulphides and gangue also occur in larger masses. Analyses show a tendency to variation in the composition of the ore shipped to the smeltery. This is caused by a variation of the character of the ore, not only from different stopes, but also from different parts of the same stope. There is a steady fluctuation of ore composition, but the degree of variation is fortunately becoming less. In

the accompanying table, A and B each represent the average of a month's run and illustrate the extremes in SiO_2 contents by months; C and D represent two extreme analyses by lots of 1,000 tons.

"Ore from No. 2 ore-body is more siliceous and aluminous than that from ore-body No. 1. The average analysis of No. 2 ore for the last year is given in the accompanying table. The sulphide portion of the ore consists of chalcopyrite, pyrite, and pyrrhotite; CaO seems to be present with the silicates rather than as calcite. Unlike No. 1 ore, it can be mined with the introduction of little waste rock, which is fortunate in view of the already high amount of combined SiO_2, as implied by the high Al_2O_3 and MgO content. Physically, No. 2 ore is well adapted for the blast-furnace, containing only about 8 per cent. fines, being hard and not given to crumbling. It is by comparison fairly uniform in character, fluctuating in analysis much less than No. 1 ore. The table gives the average of analyses, E and F, for two different months and illustrates the extremes of the range of variation. There is another classification of *Hidden Creek* ores, a low-grade quartz-schist, of which several thousand tons per month is used in the concentration of matte. A typical analysis is shown in the accompanying table.

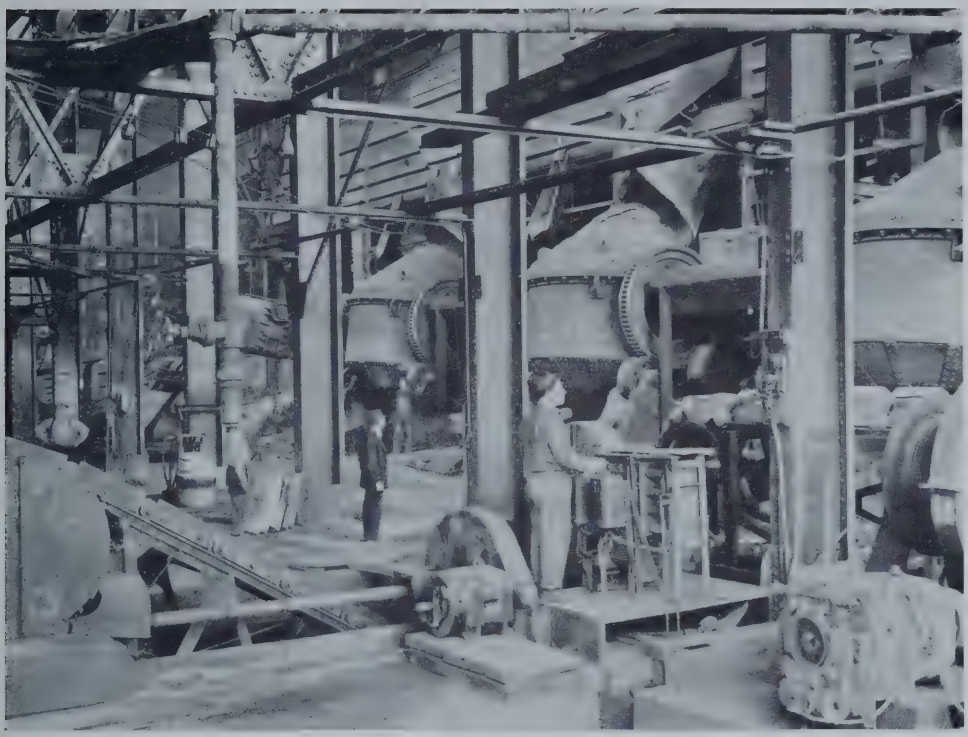
"Outside ores consist of custom ores and ores from the Granby Company's Alaskan mines. The *Midas* mine, a Granby property at Valdes, Alaska, is shipping about 3,000 tons a month of siliceous aluminous sulphide ore. From the *Mamie* mine, on Prince of Wales island, and from several custom shippers, a heavy magnetite ore to the amount of about 5,000 tons a month is received. Shipments of a copper-bearing, specular hæmatite from the White Horse district have been received; also miscellaneous siliceous ores from a number of different shippers amount to about 2,000 tons a month. In most of these ores the gangue consists principally of natural silicates of CaO, Al_2O_3, and MgO. "Clean ores," those wherein the SiO_2 is predominantly quartz, or the CaO is calcite, are sparingly offered. An analysis of outside ores is given in accompanying table.

"*Fluxes mined by the Granby Co.*—Lime rock of good quality obtained from the company's quarry at Swamp point, on the Portland canal, analyses: SiO_2, 5 per cent.; CaO, 50 per cent.; MgO, 2 per cent. The Granby Company operates several small quartz-mines in the immediate vicinity of Anyox. One ledge carries about $8 in gold and silver. The quartz is full of cracks and fractures, is very friable, and shatters so readily that by the time it reaches the smelter-bins fully 60 per cent. will pass through a 1-inch mesh.

"Coke comes from several sources. It contains from 18 to 26 per cent. ash, averaging 23 per cent., and physically it will grade from fair to inferior. Clay suitable for smeltery use is found in abundance near the works.

"Shipments of outside ores arrive on steamers or barges in amounts ranging from a few tons to 2,500 tons. The amount taken for a sample and the method of procedure are varied to meet requirements. *Hidden Creek* ores are lotted in forty-car lots weighing approximately 1,000 tons. An automatic sampler at the mine cuts out one twenty-fifth of the crushed ore, which is then sent to the sampling-mill at the smeltery. As the ore is usually smelted before its analysis can be obtained, a close examination is made, as it is dumped into the bins, for the purpose of estimating approximate percentages of SiO_2 and the general character of the silica, whether 'clean' or 'dirty,' and if dirty, whether due to gangue or included in waste. This inspection applies particularly to No. 1 ore, and is extremely useful in detecting radical changes which might otherwise manifest themselves in a disarranged furnace.

"*Analyses of Furnace Charges and Products.*—No. 1 and No. 2 ores are treated in equal proportions, and ordinarily such a half-and-half mixture requires flux of a basic nature. The basic ingredients used consist of matte, lime rock, or oxidized iron ores. It was the former practice, while smelting about 45,000 tons of ore a month, to convert the first fall of matte. The amount of matte thus made in excess of what the converters could handle was poured out, sent to the bins, and resmelted on the regular ore charge in amounts ranging from 5 to 15 per cent. of this charge. The addition of resmelted matte usually called for more SiO_2 in the charge which was supplied with quartz, thereby increasing the proportion of free SiO_2. The accompanying table gives a typical analysis of the charge, slag, and matte; the proportions used in such a charge are: No. 1 ore, 43.6 per cent.; No. 2 ore, 43.6 per cent.; matte, 8.7 per cent; quartz, 4.1 per cent. The Fe oxidized is 69 per cent.; coke to charge, 3.8 per cent.; matte fall, 23.4 per cent. This characteristically pyritic charge ran well as long as the ores remained fairly clean and not too unsteady in composition. By hard driving the three converter-stands were



Twelve-foot Convertors, Granby Co.'s Smelter, Anyox.

Blast-furnaces, Granby Co.'s Smelter, Anyox.

just about able to produce the required amount of copper from an average 15 per cent. Cu matte when smelting about 45,000 tons of ore a month. Later, however, increased ore tonnage made it necessary to supply converter-matte of a higher grade. This was accomplished by devoting one furnace to matte-concentration, and part time only is necessary when three furnaces are in operation; but with four furnaces in operation it takes one furnace full time to regrade matte from the other three.

"Under present practice the half-and-half mixture of No. 1 and No. 2 ores is smelted with lime rock or oxidized iron ores, or both. The addition of these basic materials to the charge is subject to frequent changes in much the same way as quartz is raised and lowered in ideal pyritic smelting of heavy sulphides. The analysis of a charge typical of the present practice is given in the accompanying table, the components of which are: No. 1 ore, 44.4 per cent; No. 2 ore, 44.4 per cent.; magnetite ore, 5.6 per cent; lime rock, 5.6 per cent. The Fe oxidized is 63 per cent.; coke to charge, 5.6 per cent.; matte fall, 21.1 per cent.

"*Analyses of Ores, Furnace Charges, and Products.*

Analysis of.	Cu.	Insol.	SiO_2.	Fe.	FeO.	CaO.	S.	Al_2O_3.	MgO.
	%	%	%	%	%	%	%	%	%
Ore No. 1 (current)	2.00	23.9	20.8	30.8	...	5.4	30.7	4.0	1.9
Ore No. 1A	2.80	17.3	14.7	33.3	...	5.2	34.2	2.5	0.6
Ore No. 1B	2.19	27.4	23.4	29.5	...	5.5	29.1	3.9	1.6
Ore No. 1C	2.40	12.0	10.4	34.9	...	5.0	38.8	1.3	...
Ore No. 1D	1.64	31.0	27.3	28.2	...	3.4	28.9	5.7	...
Ore No. 2 (current)	2.13	...	29.2	27.8	...	3.5	21.0	8.0	4.4
Ore No. 2E	2.32	34.6	26.9	27.5	...	3.7	20.7	6.8	4.1
Ore No. 2F	2.13	40.2	32.4	25.4	...	3.0	17.3	8.7	4.0
Quartz-schist ore	0.79	52.9	46.2	19.8	...	4.0	16.1	5.7	2.7
Outside Ores.									
Midas	4.3	47.6	37.3	19.4	...	1.5	17.6	8.5	6.1
Magnetite	1.8	21.4	14.0	47.0	...	5.0	3.5	5.0	5.5
Hæmatite	3.6	14.6	11.7	50.0	...	1.7	0.9	4.0	2.1
Custom siliceous	5.0	59.3	36.4	10.9	...	2.2	3.8	5.8	7.8
Swamp Point limestone	...	...	5.0	...	...	50.0	...	...	2.0
Smelting Results with 8.7 % Matte on Charge.									
Charge	3.14	...	22.5	30.3	...	3.8	26.2	4.0	2.1
Slag	0.28	...	37.0	...	44.4	6.3	...	6.6	3.4
Matte	16.0	...	...	...	...	...	...	...	...
Present Practice with no Matte on Ore Charge.									
Charge	2.05	...	23.0	28.9	...	6.3	24.9	6.1	3.3
Slag	0.18	...	35.6	...	38.1	9.8	...	9.4	5.1
Matte	11.0	...	...	...	..	...	...	...	...

"The use of 'ready' bases such as CaO and oxidized Fe for flux, instead of matte wherein the Fe must be oxidized to become available, is dictated by the increase in proportion of silicates in the ores and the disturbing degree to which they fluctuate in analysis. This is especially the case where Al_2O_3 is one of the variables and too close an adherence to pyritic conditions is bound to cause trouble. Slags commonly carry about 10 per cent. Al_2O_3, but occasionally go to 12 per cent. or beyond; the effect of the higher Al_2O_3 content is to increase coke consumption, decrease oxidation, and render the furnace more susceptible to irregularities of an unfavourable nature. Lime rock is nearly always in the charge, because, aside from its beneficial effect on diluting and increasing the fluidity of the slag, it reduces resistance to the blast and seems to keep the crusts undercut, thereby mitigating the evils of encrustation.

"Magnetite ore in amounts ranging from 5 to 15 per cent. usually forms part of the sulphide-ore charge. There is no trouble in effecting the proper reduction of Fe_3O_4 in spite of presumably unfavourable furnace conditions—namely, rapid running and oxidizing atmosphere in the focus. Furnaces have run steadily on charge consisting of sulphide ores 87½ per cent, magnetite ore 12½ per cent., and 5 per cent. of good-grade coke, with satisfactory results. Some Fe_3O_4 escapes reduction and finds its way into the matte, but rarely causes tap-hole troubles in the settlers. Various outside ores of a siliceous-aluminous nature are sometimes smelted in small quantities in the regular charges. Usually, however, a special charge is made up for their disposal and smelted in one furnace only.

"*Local Quartz used in Concentrating Matte.*—In concentrating first matte to converter grade, local quartz is the main source of silica. As before stated, it seems to run to fines and greatly increases encrustation troubles, but fortunately, in this regard, the ratio of concentration is not required to be high. *Hidden Creek* siliceous ores frequently replace part of the quartz and help to coarsen the charge. Lime rock also forms part of the charge. Converter-matte averages between 20 and 25 per cent. Cu, and slag from matte-concentration will average: Cu, 0.3 per cent.; SiO_2, 37 per cent.; FeO, 45 per cent.; and CaO, 8 per cent.

"In furnaces Nos. 1, 2, and 3 the charge column is carried about 12 feet above the tuyeres; in furnace No. 4, which is 5 feet deeper, a 15-foot charge column is carried. Less encrustation, smoother running, and longer campaigns seem to be the rule with this furnace—attributed partly to the greater fall and consequent better spreading of the charge.

"Under average conditions of ore charge, a furnace will take about 900 cubic feet of air per minute per foot of furnace-length at 48-oz. pressure. A matte-concentrating furnace runs more openly and receives sufficient blast at lower pressures. Numerous analyses of gas issuing from the 12-foot ore column as well as from the 15-foot ore column show little, if any, free oxygen. The volume of blast going to the different furnaces is ascertained by means of Pitot tubes. Each blast-pipe has one of these tubes inserted at a suitable point between the common, main, and the bustle pipe, and is connected to a meter reading the number of cubic feet of air per minute.

"An ore-furnace smelts on an average about 850 tons of ore per day, but sometimes exceeds 1,000 tons. The amount of matte produced is greater and its disposal at times a serious factor, especially when rapid running and low oxidation combine to cause a prolific fall. Furnace-crucibles are lined on the bottom and sides with chrome brick. The breast-jacket, which is made of converter-copper, cast around pipe-coils, did not give much life until the practice of bushing the outlet with 2 inches of chrome was introduced. This protects the metal against the cutting effect of the matte, and, by renewing the brick whenever the furnace is down, an unlimited life of the breast-jacket appears possible.

"Low-grade matte from the ore-furnaces goes to beds situated on the slag-dump in front of the building. On furnaces Nos. 1, 2, and 3 a system of brick-lined launders spanning the crane-aisle permits the matte to run directly from settler to bed. The maximum distance thus traversed by molten matte is about 200 feet. The No. 4 furnace, being at a lower level, has insufficient fall to dispose of matte in this fashion and requires the use of ladle and crane to get it into a launder leading out-of-doors. There are four matte-beds holding several thousand tons each, separated by walls of flue-dust. After cooling off a bed with water, it is broken up to some extent with a few shots and reclaimed with a back-haul, drag-line scraper-digger, as already described in the *Journal*.

"The grade of matte converted over a period of twelve months averaged 21 per cent. copper. Converter-slag analyses were: Cu, 2 per cent.; silica, 25 per cent.; FeO, 64.8 per cent. The blister-copper averaged 99.25 Cu. Siliceous flux is mostly quartz, while cooling material, of which a considerable amount is used, is derived from furnace cleanings, sweepings, converter-flue dust, and siliceous mine ore. The converting department is being enlarged by the addition of 135 feet of building to house two 20-foot Great Falls type converters. The copper-casting machine will be enlarged, and a straight-line machine for casting converter-slag is also to be installed. Converter-slag will be skimmed into slag-pot cars instead of ladles, and will be taken to the slag-casting department, cast into slabs, and returned to the blast-furnaces. It is intended to send to the converting department the first smelting-matte irrespective of grade, using the large converters for concentration and finishing in the 12-foot converters, thus allowing all four furnaces to operate on ore.

"There is a large tonnage of concentrating-ores in the various mines of the company, and a great deal of experimental work has been done with these ores during the last two years. There is being installed at present a 100-ton experimental flotation unit to obtain further data with respect to the handling of these ores.

"*Flue-dust, Settling, and Sintering.*—The 9-foot downtakes of the blast-furnaces lead into a settling-chamber, 225 feet long, 50 feet wide, and 30 feet high; this is a steel structure with brick walls, having three rows of hopper-bottoms each served with tracks for dust-removal. This chamber has deflecting baffles at each downtake for the purpose of reducing air-currents and distributing the gases, and it will also have suspended wires to give a better settling of flue-dust. The back wall will have holes leading to a breeching, after the manner of steam plants; thence to a 20- x 20-foot flue 400 feet long running up the hill to a reinforced-concrete stack 22 feet in diameter by 153 feet high. The elevation at the base of the stack is 280 feet and the elevation at the top of the stack is 433 feet above mean tide. The top of the stack, measured above the feed-floor, is 288 feet.

"The converter-stacks will lead directly to a brick-and-steel chamber, 25 x 20 feet, having two rows of hoppers with tracks below for dust-collection. Baffles and breeching are the same as in the big chamber, and the flue leads to the main flue and thence to stack.

"Flue-dust is made amounting to about 4 per cent. of the ore smelted, and a sintering-machine of the Greenawalt type has been installed for handling this material. The dust is brought in cars drawn by an electric locomotive, dumped into concrete bins feeding to a 24-inch conveyor-belt which leads to a bin directly over the mechanical mixer—in this case an ordinary cement-mixer. The flue-dust is moistened to the proper degree and elevated to bins over a specially constructed charge-car. There is one bin for crushed lime-rock and one for the material to be sintered—either flue-dust or concentrates. The lime rock is laid on the grates first, and flue-dust over this until the pan is full. The sintering charge is then ignited, down-draught being used. When the material is sintered, the pan is turned over on its trunnions, the product falls on breaker-cars, and thence into bins, from which charge-cars take it to the furnaces. The fines are returned to the mixer. The pan is 8 feet wide, 12 feet 6 inches long, and 9 inches deep, and has a capacity of 100 tons per twenty-four hours.

"*Ore Storage and Sampling.*—The furnace-charge bins are of heavy wood construction, with two ore-alleys underneath and chutes on both sides of the alley to deliver into the charge-cars. On the outside of the regular charge-bins there is a row of sample-bins. The charge-bin structure is 72 feet wide by 320 feet long and is suitably divided into pockets. There is storage for 525 tons of coke, 2,575 tons of secondaries, 2,340 tons of flux, and 8,600 tons of ore. The bins are served on top by five lines of track all leading to the main high line, and everything coking to the bins is weighed over 80-ton track-scales. Weighing-hoppers for coke and lime-rock and track-scales for ore comprise the weighing system for furnace charges.

"The sampling-mill is a heavy, wooden structure having five floors served by man elevators, and is well lighted. It is situated at the furnace end and alongside the bins. The design is such that the sample will feed to the main crusher from the sample-bins by means of a 30-inch conveyor-belt. All crushers are of the Blake type and the samplers are of the improved Snyder type. Ore is fed by belt to an 18- x 36-inch breaker, crushing to 3 inches, and is then elevated to the top of the mill, where a 60-inch sampler takes a 10-per-cent. cut. This sample is crushed to pass through a 1-inch ring by a 10- x 16-inch crusher. Another 10-per-cent. cut is then taken which goes to 14- x 40-inch rolls and is crushed to ½-inch size. A 10-per-cent. sample is again taken and goes to 10- x 18-inch rolls, where it is crushed to ¼-inch size. From this product a final 10-per-cent. cut is taken for samples to pipe-sampler or to sampling-floors. The large elevator has 8- x 14-inch buckets and the reject elevators 7- x 9-inch buckets. The mill is designed so that all rejects go to a conveyor-belt, and then out over the receiving-bins, and by a system of chutes to any desired bin. The final sample is taken to the assay office and is dried and bucked down for analysis and assay.

"*Power Plant.*

"The mines, smeltery, and hydro-electric power plant of the Granby Consolidated Mining, Smelting, and Power Company at Anyox, B.C., are situated on the west shore of Observatory inlet, an arm of the sea on north-west British Columbia. Ores from the Granby Company's *Hidden Creek* mines at Anyox are mined and smelted together with Granby and custom ores

shipped in by boat from the outside. Fuel, fluxes, and all supplies are brought in by steamship and unloaded at the company's wharves, from which they are distributed to the mines and various plants by the company's railroad. Power for the various operations of the Granby Company is secured from a hydro-electric power plant which utilizes the water from Falls creek, and from a 6,000-horse-power steam plant which operates during the winter months when there is a decreased water-supply.

"Falls creek, a stream of considerable size emptying into Granby bay at the north end of the smeltery-site, receives its flow from melting glaciers. The surrounding hills are steep and provide but little chance for storage. The company constructed a crib and rock-fill dam 110 feet high at a suitable point a mile distant, where the canyon is narrow and the stream could be deflected over a natural rock spillway 125 feet wide. From this dam the water is taken by a 6-foot wood-stave pipe down the creek and across the north end of the smeltery-site to the power-house. This plant is situated just below the smeltery and well toward the mouth of the creek. From the smelting plant to the power-house the penstocks are of steel, with branches leading to the various Pelton wheels. The arrangement and location of the pipe-line gives a water-pressure of 110 lb. at the smeltery-site. The head of water on the Pelton nozzles at the power-house is 375 feet, the effective head giving a pressure of about 165 lb.

"The power-house is a brick-and-steel structure and all foundations are on solid rock. A 15-ton crane running the entire length of the building handles the heavy machinery. The water-discharge from the Peltons is a little above the high-tide water-mark on Falls creek. The building is 50 feet wide by 180 feet long and has concrete floors. In this building are installed the following: One Nordberg variable-capacity water-wheel-driven two-stage air-compressor, with cylinders 22 and 36 x 42 inches, running at 84 r.p.m., with a capacity of 4,000 cubic feet of free air per minute delivered at 100-lb. pressure; one Nordberg water-wheel-driven special converter blowing-engine with duplex cylinders, 60 and 60 x 48 inches, running at 75 r.p.m. and giving a capacity of 20,500 cubic feet of free air per minute delivered at 16-lb. pressure; three Connersville high-pressure blast-furnace blowers, having a displacement of 400 cubic feet of free air per revolution and each with a capacity of 45,000 cubic feet of free air per minute at 48-oz. pressure. The Pelton-wheel buckets are directly bolted to specially designed fly-wheels. The blowers are connected by chain drive to 500-horse-power motors, and can be driven either by water or electric power. A pipe system leads to the furnaces and converters from the blowers, and high-pressure air is delivered to the mine by 9-inch and 6-inch pipe-lines. There are two direct-connected motor-driven pumps taking water from the raceways and delivering it to condensers at the steam plant.

"The present hydro-electric plant consists of two 938- k.v.a. alternators, with two 700-horse-power overhung Pelton-Doble water-wheels to each alternator. Alternating current at 2,200 volts is generated by Westinghouse 60-cycle three-phase alternators. They are separately excited by two 50-kw. Westinghouse motor-generator sets, one of which has an overhang water-wheel on an extension motor-shaft for initial starting. The excitation voltage is 125 volts. The 6-foot pipe-line from the dam branches to 25-inch pipes outside the power-house for delivery to each wheel. The effective head used is 372 feet. The 25-inch lines divide again at a Y near the Peltons into two 18-inch pipes, one of which leads to each wheel. The water-wheel driving the exciter is fed by an 8-inch pipe.

"There are two 300-kw. motor-generator sets, supplying direct current at 550 volts, for railroad and smeltery use. The generators are type M Westinghouse, and each is driven by a 440-horse-power, 2,000-volt, three-phase, 60-cycle, Westinghouse type CCL induction-motor.

"*Switchboard Control in Fifteen Panels.*—The switchboard is divided into fifteen panels. A synchronoscope is mounted on a bracket together with two voltmeters, one for each machine, and below these there is a Tirrel voltage-regulator. The first panel controls the street-lighting, which is a Westinghouse series tungsten system with a constant-current transformer on a gallery over the board. The second and third panels control the two generators. On them are mounted three ammeters, one for each phase, an indicating wattmeter and one three-pole, type B oil-switch; also there are a double-pole field-switch of 400 amperes, a main field-rheostat, an eight-point voltage receptacle synchronism plug, and a reversing-switch for operating the pilot governor control on the generator. Panel No. 4 has 125-volt, direct-current excitation. On this panel are mounted voltmeters and ammeters for each machine, a field-rheostat, two double-pole 400-ampere field-switches, and one 200-ampere double-pole double-throw switch for power-house lighting,

taken from the transformer or from the exciter bus as desired. Panel No. 5 is a totalizing panel on which is mounted a 3-ammeter, type TG static ground detector, a TI power-factor meter, a 2,400 kw. polyphase graphic wattmeter, and a type C watt-hour meter. Panel No. 6 controls the two 75-horse-power motors driving direct-current generators for excitation. Panel No. 7 controls the mine-feeder. The mine is supplied by one three-phase line from the town circuit for use in case of emergency. There are three ammeters on this panel, a circuit-breaker, and a watt-hour meter. Panel No. 8 controls the smeltery power-feeder. All the alternating-current motors in use around the smeltery and shops are connected to this circuit. Panel No. 9 controls the smeltery-lighting, town-lighting, and power circuits. On this panel there are two ammeters, one to each circuit, operating through meter-plugs to enable the reading of each phase. There are two circuit-breakers, one to each circuit, and two watt-hour meters. Panel No. 10 is for the 440-horse-power motors in connection with the motor-generator sets. Panels Nos. 11 and 12 control the direct-current side of the motor-generator sets. On each panel are mounted one carbon-breaker, one voltmeter, one ammeter, a field-rheostat, and a three-pole knife-switch. Panel No. 13 controls the railroad circuit and is provided with a circuit-breaker, an SPK switch, an ammeter, and a Columbia wattmeter. Panel No. 14 controls the direct current supplied to the smeltery for cranes, 12-ton locomotives, and some direct-current motors. All the cables between the boards and the machines are rubber-covered and braided. Stranded 220-volt, three-conductor, and single-conductor cables are laid in Orangeburg fibre conduits.

"*Five-panel Switchboard at Sub-station.*—All the power supplied to the mines goes to the mine sub-station, where there is a five-panel switchboard connecting incoming and outgoing power-lines. The outgoing lines are on No. 2 panel, which has one three-phase, 2,200-volt power-line for motors. No. 3 panel has two single-phase lines for small motors and heating and lighting around the plant. The fourth panel controls the motor for the motor-generator set which supplies 500-volt direct-curent for ore-haulage. The fifth panel controls the direct-current generator.

"The board at the sub-station is a Westinghouse type similar to the one at power-house No. 1, and with the panels similarly equipped.

"*Electric Locomotives for Ore-haulage.*—The direct-current trolly receives power from the 100-kw. motor-generator set installed in the sub-station, or else power is taken from the railroad-trolly feeders which receive power from power-house No. 1. At present one 6-ton locomotive operates on the 530-foot level of the mine on a 2-foot gauge track, hauling ore to the main pockets and hauling out waste. At the 385-foot or main shipping level three 6-ton locomotives are in service, hauling ore from the pockets to the bins, a distance of three-quarters of a mile. At the bins there are two crushers, each belt-driven by a 150-horse-power 2,200-volt, three-phase, Westinghouse type HF motor. In one case the motor has an extended shaft on which are mounted two pulleys in line with pulleys on either side of the crusher, while in the other case the motor is in the centre, between two pulleys, a combination that produces more equalized pull on the motor.

"On the 150-foot level of the mine a 6-ton locomotive is used for hauling waste from development-work. Each of these locomotives is of Baldwin-Westinghouse manufacture, and is smaller though similar to the 12-ton smeltery locomotives. The railroad runs into the mine tunnel at the 150-foot level, where eight and ten 25-ton cars are made up into trains for one of the 42-ton electric locomotives to haul to the smeltery storage-bins. The 42-ton locomotives are also employed to convey ore, coke, etc., from the dock to the smeltery bins. These locomotives are provided with four 84-horse-power, 500-volt, No. 909 mine motors, double-end series-parallel control with independent automatic air for breaking. When operating in series, two motors, one for each truck, are in series, and parallel operation gives full line voltage to each motor.

"The furnace-charge trains are hauled by three 12-ton mine locomotives of Baldwin-Westinghouse manufacture, and each locomotive has two No. 907, 500-volt, direct-current, series interpole motors. There is a pinion-drive, Westinghouse No. 141 controller with wiring protected by a railroad-type circuit-breaker. All brakes are hand-operated. The trolly is type D, of Nuttall & Co. manufacture.

"At the dam there is a 50-horse-power, 2,200-volt, type CCL motor which is used in pumping water for sluicing.

"The cranes used in the smeltery are of Niles-Bement-Pond manufacture. Each crane has two 40-ton hoists, without auxiliaries. This arrangement enables a pouring of metal at either end of a narrow span which could not be done with a long carriage, main hoist, and two

auxiliaries. Each hoist is driven by an 80-horse-power 500-volt series motor equipped with a Cutler-Hammer controller. The trolly and bridge are both driven by a 25-horse-power Westinghouse No. 7, type K, direct-current motor, equipped with an R 28, General Electric controller. The protection of each circuit is ensured by an Electric Controller and Manufacturing Company's type S crane switchboard. Each motor circuit has an overload relay, operating the main circuit-breaker. During daily inspection the safety-plug can be taken out, or locked in its off position, which makes it impossible to operate motors or obtain current beyond the main switch.

"The converters are tilted by Westinghouse type 47D, 500-volt, direct-current, crane motors; each motor being equipped with a Westinghouse R27 controller and the motor circuit protected by a Westinghouse railroad-type breaker.

"There are about six miles of track, including yards, all equipped with trolly 18 feet over the centre of the track. A 0000 copper feeder is carried on cedar poles spaced 55 feet apart and 7 feet 6 inches from centre of the 3-foot-gauge track. The trolly-support construction is mast and arm on the tangent track and double pole and span wire on the curves. About a third of the way between the mine and the smeltery there is a turnout and a spur track to the dock and a branch to the smeltery yards half a mile farther on. Along both tracks a No. 0000 feeder is installed, and both feeders and one No. 0000 trolly lead to the mine.

"The copper-casting machine has two 15 horse-power, 500-volt direct-current, Westinghouse type K motors, one of which is used for hoisting the pot and the other for moving the moulds. Both are equipped with an R122 General Electric controller.

"The mud-mill is operated by a 75-horse-power, 2,000-volt, type CCL induction-motor and is controlled by the standard auto-starter panel.

"The sampling-mill is driven by a Westinghouse type C, 2,000-volt motor, of 150 horse-power, controlled by standard auto-starter panel; also two 5-horse-power motors for conveyor-belts. The matte-digger is operated by a 440-volt, type CCL induction-motor, controlled by an overload circuit-breaker, and double-throw auto-starter switch.

"In the assay-office bucking-room there is one 5-horse-power, 200-volt, type CCL induction-motor, controlled by a double-throw, three-pole switch and fuse; a ½-horse-power, 200-volt, three-phase, 60-cycle, General Electric type DST induction-motor for running a fan; also a small motor-generator set comprising a ½-horse-power, 200-volt, type CCL induction-motor, direct-connected to direct-current 110-volt generator used for driving electrical apparatus.

"In the smeltery store there is one Otis-Fensom elevator driven by a 7½-horse-power, 200-volt, type CCL induction-motor, with rope control from the cab.

"*Machine-shop Equipment.*—The electrical and mechanical departments are in charge of all mechanical and electrical equipment at the mines, smeltery, railroad, docks, ships, and town. On account of the varied work required these departments have to be well equipped. The departments comprise the machine, boiler, blacksmith, electric, and tinsmith shops, and a foundry where all castings up to 8 tons can be made. There is a plant for generating oxygen in conjunction with a complete oxycetylene welding plant. The main mechanical shops, such as the blacksmith and machine shops, are housed in one building. This building is of wood, 58 feet wide, 254 feet long, with a craneway the length of the building, upon which is operated a Niles 20-ton electric crane. The construction floor is 30 feet wide and all machinery so placed that any piece can be reached by the crane. The line-shafting is in the lean-to part of the building over the work-benches and machines. The building is well lighted and has a hot-air heating system for winter.

"In the machine-shop there are two 15-horse-power, 200-volt, type CCL induction-motors, with auto-starter control for line-shaft; one 1-horse-power, 200-volt, Western Electric type KT 122 motor for grinder; one 20-horse-power, 500-volt, direct-current, variable-speed, Northern Electric motor operating a lathe, the speed variation of which is made by a field-rheostat, 300 to 900 r.p.m.; one 75-horse-power, type CCL induction-motor driving a turret-lathe; one 1-horse-power type CCL induction-motor for tool-grinder; one ½-kw., 250-volt generator for driving a ⅛-horse-power motor on grinder-table; one 50-horse-power, 2,000-volt motor for driving compressor and standard auto-starter panel. In addition there are two 15-horse-power motors for boiler-room, one 5-horse-power motor for foundry, and one 15-horse-power motor for pipe-shop.

"*Electric-shop Equipment.*—The electric shop is in a separate building, 42 feet wide, 76 feet long, with a craneway over the entire length of the construction floor and rooms for winding armatures and other work. All the shops are served by railroad-tracks in the centre of the construction floors.

"The motor equipment in the electric shop comprises: One 5-horse-power motor for the line-shaft; one 6½-kw., 125-volt generator for battery-charging; one 1-horse-power motor for drill-press; one 2-horse-power motor on banding-machine; and one 1-horse-power, 125-volt, direct-current motor on coil-winding machine.

"The company mess has a refrigerating plant and numerous electric appliances, and the butcher-shop has a refrigerator plant and sausage-machine.

"There are various small motors of 5, 10, and 15 horse-power used in the machine-shop, company mess-house, carpenter-shop, etc. The mines and all the houses are lighted by electricity. In the mines 220-volt current is used for lighting and 110-volt current for house-lighting. All small motors are of the three-phase 60-cycle type for 220-volt current.

"*Unloading Equipment at Docks.*—The unloading equipment at the docks is all electrically driven. On dock No. 1 there are four boom derricks; one with a 25-horse-power induction-motor for unloading quartz; and three derricks which have direct-current series motors for big ranges of speed and fast operation. These derricks are equipped with 50- or 80-horse-power motors for hoisting and a 15-horse-power motor on each boom. The 50-ton hoist has a 50-horse-power, direct-current, Westinghouse type K10 series motor, operating through mechanical brake to drums of hoist. These motors are equipped with Westinghouse R27 controllers for the 50-horse-power motors, Cutler-Hammer No. 5100 controllers for the 80-horse-power motors, and General Electric R122 controllers for the 15-horse-power motors. On this dock there is also a 10-horse-power motor which drives the matte-elevator.

"On dock No. 2 there are two unloaders. Each unloader has two motors, one for hoisting, which is a 35-horse-power, variable-speed, Westinghouse induction-motor equipped with a Westinghouse rheostatic controller, and one 20-horse-power type CCL, constant-speed induction-motor which is controlled by an auto-starter and drives the conveyor-belt.

"The two power-houses are situated facing each other on opposite banks of Falls creek, which is about 300 feet wide at this point. Close to each power-house a wooden four-pole structure is erected and the cables span the creek about 30 feet above the high water.

"In No. 1 power-house three 500-horse-power, 2,000-volt, three-phase, 60-cycle, Westinghouse type HF motors drive the blowers. One panel is allotted to each motor, and on it is mounted one three-pole type D circuit-breaker, six type DDPST oil-switches for cutting out resistance, and one ammeter and plug. Enough resistance is installed in the secondary circuit of each motor to obtain speed variation for continuous duty from half to full speed. One watt-hour meter will be installed for three motors.

"For additional 16-lb. air, there is being installed one 25,000-cubic-foot De Laval turbo-blower, driven by an 1,800-horse-power, three-phase, 60-cycle, 2,000-volt, Westinghouse type CCL motor. The control is mounted on one panel, and on the panel is one 3 DST overload circuit-breaker, and three interlocking starting-switches connecting the motor through the 2,000-k.v.a. auto-transformer, one ammeter, and one watt-hour meter. To obtain additional supply of power for the railroad, a new 500-kw. synchronous motor-generator set is being installed to run in parallel with the one at present in operation. The motor of this set will also be used for power-factor correction, and arrangements are made for future water-wheel connections on the extension of the motor-shaft.

"The cables from No. 2 power-house are brought to a panel in No. 1 power-house, on which is mounted a type B circuit-breaker, voltmeter, synchronizing-plug, and watt-hour meter.

"The two Ingersoll-Rand compressors will be driven by one 200- and one 400-horse-power type CCL motors.

"The power-line to the mine will be overloaded when these extensions are complete, and to remedy this the line potential will be raised to 6,600 volts, using a step-up bank of three 150-k.v.a., 2,200 to 6,600 to 2,200 volts at the mine sub-station. The distribution control of the whole equipment is kept at No. 1 power-house.

"*Auxiliary Steam Plant for Winter Months.*—On account of the glacier feed to Falls creek there is a period of three months in the winter of extreme cold, when the flow of water is not enough to give all the power needed to fully operate mines and smelter to capacity. To be ensured against this shortage of power there has been installed an auxiliary steam plant of 6,000 horse-power. For this purpose a reinforced-concrete building has been erected across the creek opposite and facing No. 1 power-house, with dividing walls separating the boiler and operating rooms. In the boiler-rooms there are five 550-horse-power, Babcock and Wilcox oil-

fired boilers with superheaters. All the necessary machinery is installed to make them easily and cheaply operated.

"In the operating-room there is installed: One 3,750-k.v.a., three-phase, 60-cycle, 2,200-volt Westinghouse turbo-generator; one 2,000-k.v.a., three-phase, 60-cycle, 220-volt Westinghouse turbo-generator; one 100-D.W. exciter; and one DeLaval turbo-compressor with 800-horse-power motor so arranged that it can be either driven by steam-turbine or motor. The capacity is 3,500 cubic feet of free air per minute at 100-lb. pressure. There is a space allowance for one extra turbo-generator. All the necessary condensers, vacuum-pumps, switchboards, etc., are installed to make an up-to-date and efficient plant.

"The warehouse building is of wood, 36 feet wide, 160 feet long, and has three floors. A complete stock of supplies and repair parts are kept on hand, more so than would be the case if the works were not so removed from the source of supply."

Unuk River.

The Unuk river flows into the head of Burroughs bay, crossing the Alaskan Boundary about twenty-seven miles up from its mouth. Its total length is approximately sixty miles, of which about twenty-five or thirty miles drain the argillite-schist contact belt lying east of the Coast Range granite, and is the next means of access to that region north of Portland canal. The early history of the region is given in the Minister of Mines' Report for 1911, page 66.

During the summer season of 1917 prospectors again visited the district and staked several claims on the South fork and Glacier creek.

With the development of properties at the head of Portland canal, this belt will gradually be investigated farther north to the Unuk, Iskut, and Stikine rivers.

THE BELLA COOLA MINING DIVISION.

This Division has had no active mining during the year. There are about seventy claims in good standing, of which number forty were recorded this year, located principally on Dean and Burke channels, King island, and Seymour inlet.

Seymour Inlet.

Kitchener Group.

This group of claims, consisting of the *Kitchener No. 1* to *Kitchener No. 9* (inclusive) and the *Kitchener Frac.*, is owned by D. H. Martin, the original staker, and the Bonthrone Bros. and associates, of Vancouver. The claims are situated on the north shore of Seymour inlet, about seven miles from the head, on Wigwam bay, and about thirty-five miles from the mouth of the inlet where it opens into Queen Charlotte sound.

The claims are ideally situated for cheap mining, and have all kinds of timber for all purposes; a good water-power can be developed from a large creek flowing into the head of Wigwam bay, where there is deep water for any size freighter.

The rock-exposures show a dark, medium-grained diorite containing in places very coarse crystals of hornblende. In this general formation, and running in the same direction as the ore veins, are bands of crystalline limestone. The general strike of the veins is N. 50° W., with a dip of about 70 degrees east. There appear to be four veins exposed, so far, though, on account of the heavy overburden, it is impossible to trace the veins and prove the connections between the croppings. The work done consists of a few open-cuts and stripping of overburden in a few places. Sufficient work has not been done in any one place to conclusively prove the width of the vein, and no drifting whatever to show the continuity. The ore is magnetite, very clean and pure in some of the exposures, and enclosing small kidneys of rock in other places. The ore appears to be absolutely free of any form of sulphides.

No. 1 vein, on the *Kitchener No. 1* claim, is exposed at a point about 1,200 feet from the beach at an elevation of 250 feet. It has been stripped for a width of 20 feet, showing solid magnetite with small enclosures of wall-rock; further work will doubtless show a much greater width of vein. A fair depth can be obtained here by drifting to the north, and, in fact, such work should be done on all the croppings in order to better size up the vein content.

No. 2 vein, also on the *Kitchener No. 1* claim, lies about 150 feet east of the No. 1 vein and has the same strike and pitch. The cropping here is at an elevation of 250 feet, the work

Workmen's Houses, Granby Co., Anyox.

Experimental Flotation Plant, Granby Co., Anyox.

consisting of stripping and a few shots put in the ore, knocking off the surface and showing 10 feet in width of solid, clean, bluish-coloured magnetite, a sample across which gave assay returns of: Iron, 65.5 per cent.; insoluble, 4.6 per cent.; sulphur, 0.5 per cent. The showing here is worthy of further development.

No. 3 vein is exposed by two cuts on a small hill south from the open-cuts on veins Nos. 1 and 2. The first cut is not sufficiently deep to penetrate the surface filling, but shows the walls to be about 15 feet apart, the hanging of diorite and the foot-wall of crystalline limestone apparently about 2 or 3 feet thick. The second cut, at an elevation of 500 feet, is about 200 feet south of the other and about 800 feet south of the cuts on the first two veins. The foot-wall shows the continuation of the limestone-belt. The vein at this point is badly broken up on the surface, lying in huge boulders, from which a sample was taken of clean magnetite representative of everything exposed. The sample assayed: Iron, 64.4 per cent.; insoluble, 1.8 per cent.; sulphur, 0.1 per cent. A depth of 400 feet could be obtained under this cropping by drifting on the vein from the creek-bed. This vein appears to strike east of No. 2 vein, but might easily be its continuation.

No. 4 vein crops in a bluff farther up the mountain at an elevation of 700 feet; no work has been done on it, but it can be followed 100 feet along the face of the bluff, at the top of which it is buried under vegetation and at the bottom under slide-rock.

The four veins are contained in a width of approximately 700 feet, and could therefore be worked from a common crosscut tunnel driven from a suitable point near the beach.

More work is necessary in the shape of drifting or stripping and open-cutting at short intervals along the veins before diamond-drilling would be justified. Such work is warranted, judging from the quality and quantity of ore exposed by the limited amount of work done to date.

Alexander Group.

This group includes the following five claims: *Dolphin*, *Iron Pirate*, *Gillis*, *Gladys*, and *Tin Hat*, situated on the south shore of Seymour inlet, about four miles from its head. It therefore has the same natural mining and shipping facilities as the *Kitchener* group mentioned above. The property is Crown-granted and is, I believe, owned by Colin Jackson, of Vancouver, purchased from the original locator.

The upper croppings on the claims were unknown to me, and, having no guide with me familiar with the property, I therefore saw only the showing near the water. This is reached from the water's edge through a perpendicularly walled canyon down which a small creek was running, but which is no doubt a torrent at times. The ore-cropping is in a break in the right-hand wall about 500 feet from the beach and at an elevation of 300 feet. It consists of clean magnetite about 40 feet wide, in which are enclosed bunches of country-rock. No work has been done at this point, and it is therefore impossible to form any idea as to the extent of the ore-body, as it protrudes from the bottom of an inaccessible bluff.

The property has been thoroughly examined and reported on by engineers, and I presume all information can be obtained from the owner by any one interested.

I may quote the following analysis, taken from a private report, of an average sample taken from an outcropping on the upper portion of the property:—

	Per Cent.
Iron oxide, equivalent to 60 per cent. metallic iron (Fe_3O_4)	83.32
Alumina (Al_2O_3)	7.60
Silica (SiO_2)	6.37
Lime (CaO)	1.80
Sulphur (S)	0.30
Combined water, etc.	0.11
Phosphorus (P)	Trace.
Magnesia (MgO)	Trace.

PORTLAND CANAL MINING DIVISION.

This Division in area is the smallest in the Province, and includes a strip along the eastern side of Portland canal to the summit of the range between the canal and Observatory inlet, and from the head of the canal to the headwaters of Bear river, American creek, Salmon river, and tributaries of each.

The mineralized portion of the Division is mainly confined to the eastern contact of the granodiorites of the Coast range and the sedimentaries, being identical with the formation at the head of Observatory inlet. (*See* McConnell's report, 1911, Dominion Geological Survey.) There are about 180 Crown-granted claims and 400 mineral claims in good standing up to the end of 1917.

This district has had a very important revival of mining activities during this year. In both the Bear River and Salmon River valleys development-work has been under way this winter which may have far-reaching results. The rather remarkable progress made by the *Bush* property, the discovery of an apparently large body of similar ore some three miles farther up the valley, and the renewed interest displayed by large mining corporations in the low-grade complex ores of the *Big Missouri* group assure the Salmon River valley of a thorough investigation during the coming year.

A great deal of development-work has been done by the Granby Consolidated Company and the Fernie-Spokane people, who are developing the *Bush* property on Salmon river. The Granby Company has been mining at Maple bay and Swamp point, procuring limestone at the latter point. At Maple bay the company has under option a group of claims owned by Noble, Collison, and others, from which was shipped 5,341 tons of siliceous ore carrying a small percentage of copper and small values in gold and silver, which was utilized for fluxing purposes at the Anyox smelter. The company also shipped from Swamp point 64,604 tons of limestone.

The old *Brown Alaska* group of claims at Maple bay is at present being developed by Spokane interests. I am informed that their recent work has been very encouraging.

Georgia River Mining Co.

Farther up the canal is the *Guggenheim* group, consisting of eight claims—*John D.*, *Guggenheim*, *J. P. Morgan*, *Danny*, *Lookout*, *Summit*, *Charlotte*, and *Hillside*—none Crown-granted. They are owned by the Georgia River Mining Company and are under the management of C. H. Dickie, of Duncan, B.C. They are situated about nine miles up the Georgia river, on the west bank, along which a trail has been constructed for about four miles from the canal, on a grade of about 7 per cent. Georgia river flows into Portland canal about seventeen miles south of Stewart, at the head. Access to the property at present is from a point about eight miles from Stewart, from which the summit of the first range, 4,000 feet elevation, is reached in three miles, thence dropping 1,000 feet in another mile to the camp. The completion of the trail up Georgia river was recommended by me and approved by the Department of Mines, which appropriated a sufficient amount, but which was not utilized on account of the lateness of the season.

Little need be said supplementing reports of 1914 and 1916, other than to note the advance in results of development-work. There are several veins cropping on the surface, but all development has been concentrated in the *Bullion* tunnel, which is at an elevation of 3,450 feet. It has been driven on the vein for 390 feet, of which 132 feet is in ore which varies in width from 4 to 12 inches. The ore-shoot has been further proven by a raise of 35 feet through to the surface, from which bonanza ore was taken, and a further depth of 32 feet by winze from the bottom of the tunnel. The more or less sorted ore on the dump taken from the tunnel averages $47 a a ton in gold.

The "Big Showing" on the property is a quartz vein outcropping at intervals for a length of 1,200 to 1,500 feet. It varies from 10 to 20 feet in width and strikes about N. 50° W., intersecting the vein on which the tunnel has been driven at an angle of between 20 and 25 degrees. The intersection of the veins is not apparent in the tunnel, but should be found with little difficulty, from which point the big vein could be drifted on, securing a depth of 300 feet under its surface exposure. An average sample across 19 feet on the surface gave assay returns of $22 a ton in gold (private report).

A small milling plant is planned by the company, with the improvement of transportation facilities. The numerous high-grade quartz-lenses occurring in the argillites should be tempting to the leaser when milling is available.

The region farther up the river has had little or no prospecting.

Prince John Group.

This group consists of three claims—*Prince John No. 1*, *Prince John No. 2*, and *Prince John No. 3*—owned by Nesbitt & Archie, situated about three miles north of Stewart, on the west bank of Bear river. The owners had done about 90 feet of work in a crosscut tunnel before optioning the claims to the Granby Company. It is reported that 60 feet of the distance was in a low-grade copper ore. The Granby

Company put in two diamond-drill holes and will continue the work all winter. The results so far obtained are not procurable.

Lakeview Group. This is an old group, owned by McKay & Bibeau, on Glacier creek, from which the owners have shipped several tons of high-grade grey-copper ore each summer for several years. The property is now under bond to a development syndicate that is driving a 200-foot crosscut tunnel to try to pick up the vein at depth. No definite information at this time is available.

George Copper-mines. This group is composed of nine claims—*Mamie*, *Bessie*, *Gold Crown*, *Copper Queen*, *Copper King*, *Copper Lord*, *Castle Rock*, *Helena*, and *Royal*—requiring survey for Crown grant; owned by W. B. George, of Stewart, and R. George, of Victoria, B.C.; situated on the south side of Bear river, four miles west of the Nass divide and six miles east of the head of rail, at Red Cliff, of the Portland Canal Short Line Railroad. At the base of the hill on which the claims are situated, Bear River valley has an elevation of 900 feet. The upper camp is 2,100 feet. The hill is very steep, but a horse pack-trail could be built with a good grade from the valley to the upper camp, to which at present there is a foot-trail. In the event of it becoming a producing property, no difficulty would be encountered in constructing an aerial tramway.

The country-rock is greenstone, locally called the "Bear River formation," after McConnell. There are on the property several veins and an extensive mineralized zone of from 70 to 80 feet in width lying very flat and striking N. 70° E. This large mineralization occupies an altered, more or less silicified area in the greenstone, and in which iron sulphides are disseminated, accompanied in some places by chalcopyrite. Combined pyrites and chalcopyrite also occur in bunches. There is a tunnel in this ore-body 105 feet long which is practically barren, the surface over the tunnel showing very little mineralization. This zone might develop a large tonnage of low-grade ore.

About 600 feet east of the tunnel, at an elevation of 4,000 feet, is a strong cropping of three veins contained in a width of 50 feet. Little mineralization can be seen on the surface in the filling between these veins, but it is very probable that they are all the same ore-zone. The best ore in all three will aggregate 10 feet, averaging $4 a ton in gold, 30 cents a ton silver, and 3 per cent. copper. The veins strike about N. 55° W., or a variation of 55 degrees from the strike of the main zone mentioned above, standing practically vertical and can be traced on the surface for over 1,000 feet. Shots have been put in at several places, exposing iron and copper sulphides.

East of the three veins, and no doubt intersecting or joining them, is what is called the "White vein," striking about the same direction as the main zone. It can be traced for 2,000 feet on the surface. A sample taken across the vein, just west of the "big gulch," gave 18 inches of quartz and chalcopyrite on the hanging-wall, 8.8 per cent. copper, 0.4 oz. silver, and trace of gold; the remaining 36 inches on the foot-wall assaying 14 per cent. copper, 0.4 oz. silver, and $1.20 gold. Another sample 400 feet west, across 36 inches on the foot-wall, gave 16 per cent. copper, 0.4 oz. silver, and a trace of gold. Another sample 10 feet east of the previous one, from 40 inches on the hanging-wall, gave 1.6 per cent. copper, 0.4 oz. silver, and a trace of gold.

Two hundred and fifty feet south of and parallel to the "White vein" is the "Green vein," cropping at an elevation of 4,900 feet. A sample across 5 feet gave 5 per cent. copper and $2 in gold and silver.

It would be good development to trace the three cross-veins down as low as possible to a good tunnel-site and drift on them to their intersection with the "White vein," and from that point drift on it. Though there is no timber on the claims, there is an abundance in the valley and on the opposite hill. Good water-power could also be developed from creeks on the opposite mountain.

The property looks promising, and credit is due W. B. George for the amount of prospecting and work done on the claims under difficult conditions.

Bear River Mining Co. This company holds a group of nine claims west of and adjoining the *George* copper-mine group. The ore-zone mentioned on the *George* group extends across this property. A tunnel has been driven 100 feet in a slightly mineralized greenstone, with some stripping and open-cuts above in the same material. The tunnel is at an elevation of 2,500 feet and is too low to tap the ore-zone unless driven a great distance.

Grey Copper Group.

Directly west of this group lies the *Grey Copper* group, consisting of three claims owned by Captain C. E. Clark and associates, of Victoria, B.C. The work consists of an open drift along the vein for 125 feet, giving the maximum depth of 10 feet. The elevation is 3,900 feet and about 3,100 feet above Bear River valley. The vein is composed of brecciated wall-rock of argillite cemented with calcite and has a width averaging 6 feet. The ore-seam, lying on the hanging-wall, is about 6 inches of high-grade grey-copper, from which several tons have been shipped assaying 375 oz. to the ton in silver; the balance of the vein is practically barren. The strike of the vein is N. 60° E. and dip about 60 degrees to the south.

A fair trail has been built by the Government from the valley to the camp of the Bear River Mining Company; from this a rough trail has been made to the group by the owners. The showings would warrant a couple of men mining and sorting ore, and therefore it is a leasing property.

Red Top Group.

This group is composed of *Red Top*, *Red Top No. 1*, *Hector*, *Superior*, *Superior No. 1*, and *Superior No. 2 Fract.*, and is situated on the north bank of Bear river opposite the *George* copper-mines. Considerable work has been done by way of surface stripping and open-cuts, with encouraging results. I was unable to visit the property on account of the snow.

Fitzgerald.

About eight miles beyond the *Red Top* group, or about six miles from the Bear River divide, on the Nass River slope, on Strohn creek, the Fitzgerald Bros. have located three claims, from which they brought into Stewart several hundred pounds of very fine-looking molybdenum ore. The vein-filling is quartz, which I was told varied in width from 3 to 6 feet, carrying clean molybdenite, and lies in a tongue of granite intruding the argillites or Nass formation at that point. (*See* geological map accompanying McConnell's report in Summary Report, 1911.) The ore shown me will average about 6 per cent. molybdenite and will concentrate to a clean product. Any one interested may obtain full information from S. Fitzgerald, of Stewart, B.C.

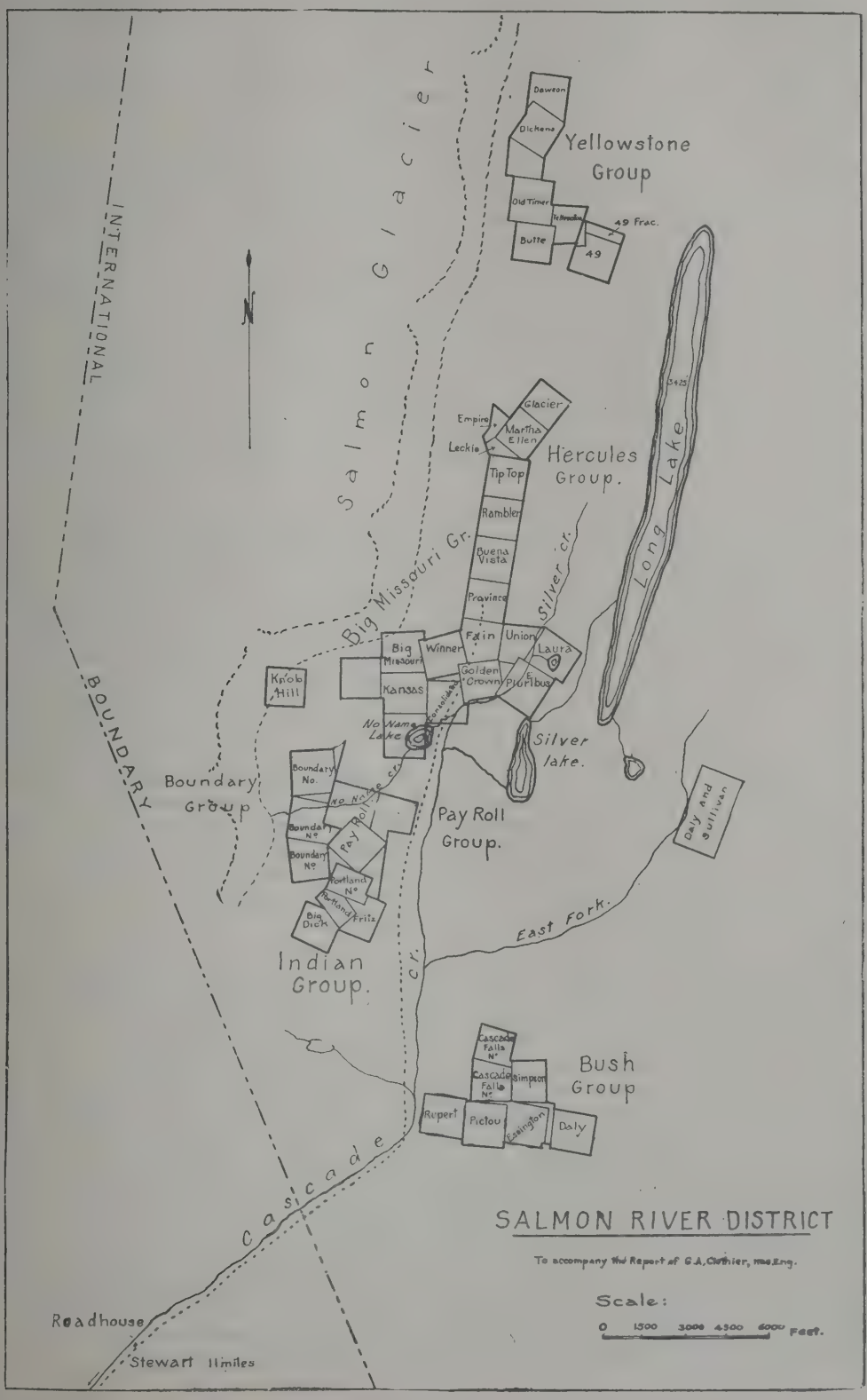
SALMON RIVER SECTION.

This section of the Portland Canal Mining Division has received considerable attention this year. The most important development has been the rather remarkable showing opened up on what is locally known as the *Bush* property. Three miles beyond this up the valley the *Joker* group has an exposure of ore on the surface that gives every promise of developing into a producer. The *Big Missouri* group, the holdings of the Indian Mines Company, Limited, the *Boundary* group, and the *Yellow Stone* and *Hercules* groups are all showing up well. Below the boundary-line, in Alaska, I am told that on Fish creek, a tributary of the Salmon river, the season's work has been exceptionally encouraging. Altogether the Salmon River valley bids fair to develop into a very productive and important mining section.

The mouth of Salmon river is at Portland City, which is about one mile and a half from Stewart, on the west or Alaska side of Portland canal. A good trail has been built from the dock at Stewart to Portland City, thence up the valley for twenty miles to the head of the Salmon river. From tide-water to Eleven-mile the grade is practically level, the elevation at Eleven-mile being 250 feet above sea-level; from this point the grade becomes heavier, rising in three miles to 1,800 feet at the *Bush* camps, and in nine miles to 3,500 feet at the *Big Missouri* cabin on the group of that name. A road was recommended from Eleven-mile to the *Bush* mine; it was approved by the Department and work commenced, but, owing to the abnormally early winter weather, the work was closed down before its completion. The extraordinary surface showings and results obtained from development-work to date warrant the construction of a wagon-road from tide-water at Portland City to the foot of the *Big Missouri* hill.

Salmon-Bear River Mining Co.

This company's holdings consist of eight claims—*Essington*, *Rupert*, *Simpson*, *Pictou*, *Cascade Falls No. 4*, *Cascade Falls No. 8*, *Dally*, and *Pat Fract.* They are situated on the east side of Cascade creek, a tributary of the Salmon river emptying into it about one mile and a half above Eleven-mile. The property is now under bond to Spokane-Fernie interests, and the mine is under the management of R. K. Neill, of Spokane. Before being taken over by the present syndicate it was held for a couple of years by New York people, who did about 1,600 feet of work, the results of which, however, did not prove sufficiently encouraging to warrant them exercising their option.


INTERNATIONAL BOUNDARY
Salmon Glacier
Yellowstone Group
Dawson
Dickens
Old Timer
Butte
49
49 Frac.
Hercules Group.
Glacier
Empire
Martha Ellen
Leckie
Tip Top
Rambler
Buena Vista
Province
Big Missouri Gr.
Silver cr.
Long Lake
Big Missouri
Winner
Fair
Union
Laura
Golden Crown
Floribus
Kansas
Knob Hill
No Name Lake
Silver lake.
Boundary Group
Boundary No.
Pay Roll cr.
Pay Roll Group.
Portland
Big Dick
Indian Group.
East Fork
Daly and Sullivan
Bush Group
Cascade Falls No
Simpson
Rupert
Pictou
Lexington
Daly
Cascade cr.
Roadhouse
Stewart 11miles
SALMON RIVER DISTRICT
To accompany the Report of G.A. Clothier, mg. Eng.
Scale:
0 1500 3000 4500 6000 Feet.

The present holders have, in a comparatively small amount of work, developed a sufficient amount of ore of good milling grade to justify the equipment of the property with power plant, concentrator, etc., the installation of which will be carried out as fast as possible. Several hundred tons of ore on the dump, sorted from development-work, is being rawhided to Elevenmile, and will be hauled on "double-enders" to the beach this winter for shipment. This ore will run $150, or better, to the ton in gold and silver values.

The mountain on which the claims are located is the dividing ridge between the Bear River valley on the east and the Salmon River and Cascade Creek valleys on the west. This whole ridge is almost entirely composed of greenstone, termed the "Bear River formation" by McConnell. There are, however, broad bands of argillite just south of the claims, apparently in contact with an intrusive tongue of granodiorite. The ore-body is a silicified zone in the greenstone, which is more or less schistose near the altered and mineralized portion. The quartz-zone is mineralized mainly with disseminated pyrites, although there are bunches of solid pyrite in places. The general value of the pyritized quartz is low, but in the ore-shoot now being opened up in the upper tunnel there are distributed with the pyrites the sulphides of silver, argentite, ruby-silver, and considerable native silver, making a very high-grade ore and raising the average value of a large body to a good grade of milling-ore. It would appear, from exploration-work so far, that there had been a fracturing of the original deposit of mineralized quartz and a second circulation of an enriched, or at any rate richer, solution, and deposition of its contents in the fissures. However, better conclusions on this point can be drawn when the ore-shoot is further explored.

Exploration-work on the property consists of extensive surface stripping, open-cuts across the ore-body in several places, and five tunnels, four of which are wholly or in part in the mineralized area, and one crosscut tunnel which was stopped before reaching the ore. From this work the general strike of the ore-zone is shown to be N. 80° E., with a probable dip, as shown by the enclosed parallel dykes, of about 60 degrees to the south. The lowest tunnel, at an elevation of 1,325 feet, is started on the lower limit of the claims, was driven 500 feet before encountering the vein, and continued 140 feet through it into the wall-rock beyond. At a distance of 520 feet from the portal, or 20 feet in the ore, a short drift, 40 feet long, was run following a small dyke. Some small bunches of galena were found, but the general character of the ore on this level is apparently very low grade. The drift of 40 feet seems rather inadequate exploration of the ore-body after driving a 500-foot crosscut tunnel to reach it. There appears to be no definite line of demarcation between the ore-zone and the surrounding wall-rock, but rather a lessening of silicification and mineralization grading from the ore-body to the enclosing greenstone.

A higher tunnel, 1,575 feet elevation, starts on the ore on the surface, crosscuts it for 15 feet to the dyke, which at this point is 8 feet thick, and follows it for 75 feet. At the face a crosscut 48 feet long was driven to the left and one 15 feet long to the right, both in low-grade ore. A grab sample taken from the muck-pile, which represented part of the material taken from the crosscut, gave 80 cents in gold and 2.6 oz. silver to the ton.

Farther up the hill, at an elevation of 1,750 feet, is the middle tunnel. This also was started in the ore-body, and cuts diagonally across it at N. 50° E. for 60 feet before getting out of the ore. In that distance there is 36 feet of practically solid pyrites assaying $2 in gold and 6.8 oz. silver to the ton; the balance is slightly mineralized; it was not sampled, but is evidently low grade. From the face of the tunnel a crosscut 30 feet long was run north in country-rock.

The most important development at present is the upper tunnel, at an elevation of 2,000 feet, or 675 feet vertically higher than the lowest tunnel. This tunnel had been driven about 200 feet when the property was taken up by the present holders, who have concentrated all their development on this level and the surface above it. The tunnel has been extended about 100 feet and four crosscuts, of varying lengths, driven across the ore-body. At the same time the surface has been extensively stripped and the ore-shoot exposed and sampled. The tunnel was started in the ore-body, whose general strike, as stated, is about N. 80° E., and was driven 55 feet at N. 25° E., 54 feet at N. 40° E., and 92 feet at N. 55° E. to the face at that time, from which bearings it can readily be seen that it runs diagonally across the ore-shoot, and after going through the ore gradually diverges from the vein, thus accounting for the rather discouraging showing disclosed by this work. The foot-wall limit of the ore was reached at about 100 feet from the portal; the direction was then changed, following a slip for about 80 feet, where broken-up ground was encountered and the remainder of the tunnel, about 12 feet, driven in that material.

When work was undertaken by the present bonders, a crosscut into the ore was started at a point 85 feet from the mouth of the tunnel. It was driven 8 feet, showing in that distance 6 feet of ore averaging about $60 a ton in gold and silver (company's sample and assay). Further work is necessary here to determine the direction of this high-grade shoot of ore.

Another crosscut 122 feet from the portal shows a good grade of milling-ore for its length of 37 feet. Thirty-two feet beyond this is another crosscut 40 feet long, following a fairly well-defined seam of ore, from which some very high assays were obtained.

At 201 feet from the portal the main crosscut has been driven about 75 feet, following a well-defined cross-vein the width of the cut. Sampled after each round, it shows remarkable values throughout, ranging from $60 to over $200 in gold and silver, the gold frequently running up to 6 oz. a ton and the silver to 300 oz. a ton.

The face of the tunnel was swung to the right into the ore-body and was driven only about 10 feet when high-grade ore was encountered. It has since been continued for 75 feet in high-grade ore all the way for the full width of the tunnel. I obtained, at the time of my visit, some very rich samples of native silver, ruby-silver, and argentite, carrying very high gold values as well, from the face. A grab sample from the muck-pile of the previous round in the face gave $54.40 a ton in gold and 166.6 oz. in silver a ton. I have recently been informed that the whole distance of 75 feet will average at least $100 a ton in gold and silver values. The present face is about 175 feet vertically below the surface, which has been proven high grade for a further distance of at least 150 feet; consequently it is safe to estimate the extension of the ore-shoot for another 200 feet on the tunnel-level.

Work has recently been started in the middle tunnel which will give an additional depth of 250 feet on the ore-shoot. This, I understand, is to be used as a working-tunnel.

All the upper workings have been thoroughly sampled and an accurate assay-map is kept up, to which I had access, with the request that specific samples and assays be withheld.

The manager, R. K. Neill, estimates that there is sufficient tonnage now in sight to run a 100-ton concentrator for three years on average feed of from $20 to $25 a ton, with a ratio of concentration of 6 or 7 into 1.

Good camps, blacksmith-shop, assay office, etc., have been built, and the wagon-road has been finished from the upper tunnel to over half-way down to the Government trail, which is being converted into a wagon-road.

This property should make a very important gold and silver producer within the next year or two, depending on transportation facilities.

Adjoining the *Bush* group, and no doubt containing the extension of the big ore-zone, is the property of the old Cascade Mining Company. Considerable work was done on this group in the early days of the camp, and interest will be revived in it with the opening of the *Bush* mine. No information is available as to the status of the old company or the property.

Farther up on the east side of Cascade creek are several claims on which assessment-work has been done yearly, which will doubtless receive attention with the stimulation of mining in this region.

Indian Mines Co., Ltd.

This company owns four claims on the west side of Cascade creek, opposite the *Bush* claims, on the south end of *Missouri* ridge, between the Salmon River glacier and Cascade creek. The claims are *Portland No. 1*, *Portland No. 2*, *Big Dick*, and *Fritz*, and are Crown-granted. They are at an elevation of about 2,400 feet and fourteen miles from tide-water at Stewart. No work has been done on the property since 1913.

Development consists of three open-cuts on the croppings and two tunnels. The open-cuts expose a vein from 12 to 20 feet in width, which can be followed on the surface to the end of the claims, about 2,000 feet. The vein is quartz and appears to follow a wide dioritic dyke which intrudes the greenstone-schists. The minerals included in the quartz are galena, sphalerite, and pyrites, in the order of importance mentioned. The first two open-cuts, going up the hill, show very little galena; the values are about $10 a ton in gold and silver for a width of 12 feet. The upper or main open-cut discloses the vein for a width of 20 feet, of which 5 to 8 feet in the centre is solid galena, with the same amount of zinc and galena on the hanging-wall, and the balance of the vein on the foot-wall of quartz and pyrites.

A tunnel has been driven about 150 feet vertically below and following the vein for a little over 400 feet, showing each of the ore-shoots exposed on the surface. The No. 1 shoot shows

considerable galena at this depth, with quartz and pyrites predominating, and is about 35 feet in length. The No. 2 shoot is entirely of quartz and pyrites and will average about $10 a ton, mainly in gold values. The No. 3 or main shoot, from the big cropping on the surface, was struck at about 400 feet in the tunnel and drifted on for 30 feet. The ore started from a seam on the foot-wall and has widened to 14 feet at the face, as exposed by two crosscuts. Three sectional samples across the face averaged $2.40 in gold, 3.5 oz. silver, 10 per cent. lead, and 16 per cent. zinc. The hanging-wall crosscut at the face is still in heavy zinc ore. Further work in driving this drift is very important, as the foot-wall portion of the vein, carrying the galena, is widening rapidly and has all the appearance of making into a good shoot of ore.

The lower tunnel, 150 feet below No. 1, has been driven about 60 feet on the vein, in which there is from 1 to 3 feet of good ore on the hanging-wall. On the upper end of the claims there is a 6-inch seam of ore on the hanging-wall assaying as high as $120 a ton in gold. There is a good cabin and a good equipment of all necessary tools, with a car and rails in the upper tunnel.

Boundary Group.

Adjoining the *Indian* group on the north is the *Boundary* group, owned by D. J. McIntominey and under bond to the Granby Company. East of this group and adjoining the *Indian* on the north is the *Payroll* group, owned by Bill Murphy, on which assessment-work only has been done for the past three years.

Big Missouri.

North of the *Payroll* group, just beyond Noname lake, is the *Big Missouri* group, consisting of sixteen full claims and four fractions, the principal showings being on the *Big Missouri*, *Kansas*, *Province*, *Laura*, *Golden Crown*, *Buenavista*, etc. They are owned by Dan and Andy Lindeborg, of Portland City, and the Stevenson and Proudfoot Estates, and are Crown-granted. They are situated about twenty miles from tide-water at Stewart and are reached by a good horse pack-trail.

The main mineralization and development is on the *Province* claim. The ore is a very complex one, consisting of the sulphides of iron, zinc, lead, and small amounts of copper. The insoluble or gangue content will, I should judge, comprise 80 per cent. of the total, making the ratio of concentration 4 or 5 into 1. The formation is greenstone, the Bear River formation, which has undergone alteration and silicification and has been eroded practically to the primary sulphides.

The development consists of a series of open-cuts paralleling the general trend of the ore-zone, and proves the ore to extend for a width of at least 1,000 feet on the *Province* claim. The average of hundreds of samples taken from all these cuts will run about as follows: Gold, 60 cents; silver, $1.05; lead, 2.16 per cent.; copper, 0.53 per cent.; zinc, 5 per cent.; iron, 14.3 per cent; silica, 75 per cent.

The *Golden Crown* has also a big surface showing, and has had, by way of development, a tunnel about 30 feet in length driven into the ore-body from the side of a steep bluff. This is a better-looking grade of ore than exposed on the *Province*. Some stripping has also been done on the *Laura* claim, along the bank of Silver creek, showing the same general mineralization as on the *Province*.

No samples were taken by the writer, because he realized that to get any comprehensive assays would entail a thorough sampling of the whole ore-body, which would take at least two weeks. The assays quoted on the *Province* were given by the owner and are thoroughly reliable.

With the ore-bodies proven at depth by diamond-drilling, and a process devised for the separation and recovery of the different sulphides, this property will make one of the big producers of British Columbia.

Hercules Mining Co.

North of and adjoining the *Big Missouri* group is the property of the Hercules Mining Company, of Victoria, B.C. No work of any account has been done on the property since the report in the Minister of Mines' Reports of 1910 and 1912. Full information can no doubt be obtained from the company by any one interested.

Yellowstone Group.

This group consists of three claims—*Yellowstone*, *Butte*, and *Old Timer*—owned by Bill Murphy and the Stevenson Estate. The formation is the continuation of the *Big Missouri* and the mineralization identical. Development-work consists of seven open-cuts opening up a vein up to 30 feet in width.

Lying just east of the *Yellowstone* group is the *49* and *49 Fract.*, owned by Dan and Andy Lindeborg. Opened up by three cuts, showing an average vein width of 20 feet. The highest open-cut is 37 feet wide and shows 8 feet of fine-looking ore which assays $7.20 a ton in gold,

31.4 oz. silver, 1 per cent. lead, and 2 per cent. zinc; further mineralization of 12 feet of lower-grade ore.

All the claims north of the *Big Missouri*, though having large surface showings, are practically dependent on the future of the *Big Missouri*.

Silver Tip Group. This group is situated on the east bank of Silver creek near its head. The vein has been exposed by three open-cuts, showing about 8 inches of galena in a quartz vein which lies on a dip of 45 degrees. A sample of the broken ore at the upper open-cut gave assay returns of 40 cents in gold, 1 oz. in silver, and 11 per cent. lead. A tunnel has been driven 40 feet on the vein from Silver creek, 200 feet below the upper cut. A sample taken from ore piled on the dump assayed: Gold, trace; silver, trace; lead, 8.5 per cent.

Little Joker Group. This group consists of three claims—*Little Joker*, *Mineral Hill*, and *Midas*—situated east of and adjoining the *Laura* mineral claim of the *Big Missouri* group. They are owned by Martin & Carter and, I understand, are under bond to P. Welch, with work to be undertaken early in the spring. These claims have been held by different prospectors for the past eight years, during which time no assessment-work has been done on them. This summer Martin & Carter, who are developing, under bond, the *Seven Mile* property on Salmon river, bought the *Little Joker* claim from the owner and staked the other two adjoining claims. They immediately began prospecting by shooting off the surface where the rock was exposed. I took six samples from these places which, I estimate, represent an ore-body at least 60 feet in width. The ore is identical with that of the *Bush* mine, carrying argentite, ruby and native silver so intimately mixed with the disseminated iron that it is doubtless a primary ore. The deposit appears to lie between the greenstone formation of the *Big Missouri* on the west and a wide slate-belt on the east, which extends south three or four miles to Slate mountain and probably overlies the greenstone.

The six samples assayed as follows: No. 1, from small outcropping: Gold, $4.40; silver, 11.88 oz. No. 2, trench 2 feet deep, 20 feet wide: Gold, $9.20; silver, 32.71 oz. No. 3, bluff, 30 feet below No. 1 sample: Gold, $13.60; silver 29.90 oz. No. 4, bluff, above No. 1 sample: Gold, $12.80; silver, 90.20 oz. No. 5, No. 1 after shooting off surface: Gold, $13.60; silver, 86.32 oz. No. 6, same as No. 2, best ore eliminated: Gold, 80 cents; silver, 3.60 oz.

About a mile of trail will have to be built from the main Salmon River trail to the property. The development of these claims will be of great interest to every one in the district because of the remarkable surface showings and values.

THE STIKINE MINING DIVISION.

Iskut River.

The writer made a trip up to the head of the Iskut river the latter part of September by river-boat from Wrangell, Alaska. The Iskut is a tributary of the Stikine river, flowing into it about six miles above the boundary-line between Alaska and British Columbia, about forty miles from Wrangell. It is navigable for a distance of thirty-eight miles from its confluence with the Stikine to what is called the "Big canyon," which is several miles in length. The river-boat is of the type developed on the Yukon river and operated by Captain Barrington from Wrangell to Telegraph Creek. The trip was made in twenty-four hours from Wrangell, lying overnight at the boundary.

The district is practically unexplored because of the difficulties of transportation, heretofore the only means of getting into the country being by means of poling and lining up in small boats. The prospects of ever being able to get anything out of the country were therefore not encouraging from the prospector's viewpoint. This experimental trip of this type of boat convinced me that, in so far as transportation is concerned, a comparatively small appropriation for the clearance of snags and sweepers each year will overcome all the difficulties. The prospector is therefore assured that in future he will not be so handicapped, for the river can be made navigable for at least five months in the year, from May 15th to about October 15th.

The rock formation, so far as I was able to see, is typical of the eastern contact between the Coast granodiorite and the older Interior sedimentaries, being very similar to the district at the head of the Portland canal and Observatory inlet. The predominating rock appears to be greenstone, through which run wide bands of silicified and altered rock, in places more or less schistose, also bands of slate and intrusions of granite. The general strike of the different

formations appears to be about east and west. In the greenstone-belts lie small veins of quartz carrying pyrites and chalcopyrites, while throughout the silicified bands or zones is disseminated iron pyrites. A sample was taken across 400 feet at intervals of about 15 feet and assayed only a trace of gold and a trace in silver.

Iskut Mining Co.

Two groups of claims have been held for a number of years by this company, whose head office is in Wrangell, Alaska. The upper group consists of nine claims—*Copper Queen*, *Marguerite*, *Iskut*, *Golden Pheasant*, *El Oram*, *Silver King*, *Brown Bear*, *Silver Dollar*, and *Blue Grouse*. The rock-exposures on this group are mainly greenstone containing a small copper vein mentioned above, but unfortunately they were covered with snow at the time of my visit, and I was therefore unable to get over them or any of the higher ground. About a ton of ore was shipped from one of these showings a number of years ago, assaying: Gold, $1.20 a ton; silver, 44.2 oz. a ton; copper, 12.45 per cent.

The lower group is composed of five claims—*Red Bird*, *Katherine Fract.*, *Red Bluff*, *Homestake*, and *Mermaid*. In this group lies what is called the *Red Bluff* vein, which is a wide, highly altered, sheared zone in the greenstone, in which is disseminated iron pyrites carrying a little chalcopyrite. The ore is exposed in a huge bluff on the west end of the claim standing about 800 feet in height. This vein was sampled farther along across 30 feet, giving only small values in copper, with a trace of gold and silver.

In places along the side of the mountain the surface is covered with sand and gravel cemented together with iron oxide to a depth of over 6 feet.

Numerous small dykes up to 8 or 10 feet in thickness, of fine-grain, greenish-black basalt, cut across the series of formations at almost right angles.

It is my intention to make a reconnaissance of this district in the coming spring as soon as weather will permit.

There are a number of claims staked on the Stikine river, but I have no information as to what mining has been done.

QUEEN CHARLOTTE MINING DIVISION.

The Queen Charlotte Division has had one regular shipper in the *Ikeda* mines, which produced 1,000 tons of copper ore containing 153 oz. gold, 1,792 oz. silver, and 152,883 lb. copper. A later shipment of 50 tons has been made, from which no returns have been received. During the year extensive development and installation of equipment was planned but failed to materialize. I understand that the property may be equipped next summer with suitable power and concentrating plants.

The owners of the *Quinitsa* claim, on Copper island, just outside of Jedway harbour, shipped 40 tons of copper ore, assaying 13.7 per cent. copper to the Granby smelter. Several small shipments, of a few tons each, were shipped to the Granby smelter by claim-owners.

An Eastern company has bonded the *South Easter* group of claims, situated about a mile from Skidegate, and has done considerable hand development-work, and is now installing drilling-machinery to give the property a thorough testing.

About twenty-two leases have been applied for for beach claims east and west of Rose spit. The leasers propose to work the black sand for its gold and platinum content, and to that end have done considerable prospecting-work, but as yet have made no production.

No further development in the prospecting for oil on the west coast of Graham island has taken place.

UNUK RIVER.

Some years ago there was considerable mining activity on this river, and several miles of wagon-road were built at the time. Nothing, however, has been done for several years until this season, when J. Pederson and associates staked about a dozen claims. The results of any development-work in this section will be very interesting, as very fine specimens of ore have been brought out from time to time. I suppose transportation is the chief drawback to the prospecting of this promisingly situated area.

LIARD MINING DIVISION.

The Gold Commissioner at Telegraph Creek, H. Dodd, has furnished me with the following production from this Division:—

The total production of gold for the year was about $5,750; placer gold, from Boulder creek, Dease lake, $1,975; from Dease creek, $2,925; individuals, the balance.

ATLIN MINING DIVISION.

I am indebted to the Gold Commissioner, J. A. Fraser, for the following information of this Division:—

The Atlin Division, though suffering under a handicap of labour shortage, produced about $305,000 in placer gold, distributed as follows:—

Boulder creek was worked from May 15th to October 15th, employing on an average of sixteen men, and produced: Miller, $26,235; J. H. Black, $5,700; a total of $31,925.

Pine Creek: The Columbian Mines Company, operating from April 10th to October 25th, and employing an average of forty-two men for three months and thirty men for the balance of the time, produced $41,000.

Ruby creek: The Placer Gold Mines Company, operating from May 1st to October 14th, employing an average of seventeen men, produced $77,550.

Otter creek: Maluin, operating from May 1st to October 30th, employing an average of nine men, produced $15,000.

Spruce creek: Mr. Matthews, operating from January 1st to October 22nd, employing an average of thirty men, produced $57,400; Morse, operating from January 1st to October 15th, employing six men, produced $15,000; Foley, operating from October 7th, 1916, to November 5th, 1917, employing an average of four men, produced $9,300; Tintinger, with three men, from January 1st to October 30th, produced $5,300; Smith & Carlson produced $3,400; the *Tobacco Box* produced $1,860; Falconer, $1,200; total from Spruce creek, $93,460.

Birch creek produced $2,000.

Various properties, employing from two to five men for different periods, bring up the total number of men employed to about 250, and the total production to $305,000, as stated.

No returns have been received from the *Engineer* mines, though producing all year.

CASSIAR DISTRICT.

ATLIN MINING DIVISION.

REPORT OF J. A. FRASER, GOLD COMMISSIONER.

I have the honour to submit my report on mining operations in the Atlin Mining Division of Cassiar District for the year ending December 31st, 1917.

I have to admit a slightly decreased output as compared with that of the previous year, for which, as usual, various obvious causes and reasons might be assigned, scarcity of labour and shortage of water on some of the creeks being two of the principal causes.

The season was marked by wide variations in temperature, in consequence of which there was experienced some of the warmest and again some of the coolest weather noted since the inception of the camp. Although the water-supply on some of the creeks was embarrassingly short during part of the season, yet owing to the cool weather and copious showers at intervals there was a fairly good supply provided on most of them, which was utilized to the fullest extent, but the supply of labour was the poorest and most meagre we have ever had, I believe, and in any event, for a number of years.

There was a marked decrease in output on two of the principal creeks, and on another there was practically nothing done, but the increased production on other creeks brought the aggregate well up to that of the previous year, notwithstanding that the number of producers was considerably less. As usual, also, the reported output does not represent the total, because of the number from whom no returns have been secured.

McKEE CREEK.

Taking the creeks in the same order as in former years, I will commence with McKee creek, where the Delta Gold Mining Company, under the management of George Adams, commenced operations on April 28th, and with a force of from twelve to fifteen men continued until September 30th.

The water-supply was rather intermittent, notwithstanding the contributing assistance of two reservoirs, and the progress of operations uncovered intrusions or upheavals of bed-rock where none was anticipated, so that, although a considerable area of bed-rock was uncovered, the results were not as satisfactory as in the previous season; and as the later operations appeared to indicate that the best "pay" was underlying a heavy overburden of gravel on the north side of the creek, work was suspended a little earlier than usual, and prospecting operations were commenced down-stream at a point below all previous operations, and a prospecting-tunnel is being run into the bank in search of the pay-streak.

I am pleased to be able to say that latest reports from this work are to the effect that very satisfactory indications are being encountered, showing the existence there of the desired formation and of gold in encouraging quantities. Should further development prove this gravel to be what the operators believe it to be, it means a new lease of mining life for the creek, for there will be sufficient ground between this point and the known point of disappearance above to keep them operating hydraulically for many years to come, and there is sufficient grade to provide ample dump.

PINE CREEK.

On Pine creek the Columbian Mines Company, representing the North Columbia Gold Mining Company, the Pine Creek Power Company, and the Atlin Consolidated Mining Company, under the general management of Paul W. Greyer, with a force of between forty and forty-five men, operated at two points on the south side of the creek, besides carrying on drifting operations on the Atlin Consolidated Mining Company's ground on the north side.

In a pit on the eastern group of leases twelve men operated for three months and moved over 28,000 cubic yards of gravel, from which fair returns were secured. On the south leases (so

called) about twenty-four men were employed from April 10th until near the end of October. This force operated in two different pits and moved about 165,000 cubic yards of gravel, recovering therefrom much better returns than were secured from the first pit above mentioned.

In these pits a different run of gold appears to have been encountered, and of a higher grade than that found elsewhere on the creek (fineness 836), and bed-rock in this channel was 7.5 feet lower than in the older workings. This deposit has already been traced for a distance of 1,800 feet along the course (or channel), and a crosscut of 100 feet has failed to discover or determine its width. It is also said to yield a higher value per cubic yard than the gravels in the older workings.

About six men were engaged in drifting operations upon the leases held by the Atlin Consolidated Mining Company (north side).

Upon the *Menzies* group of leases, formerly held by the Pine Creek Flume Company, but now owned by C. L. Queen, drifting operations were carried on by a few men, varying from four to eight in number; results very good at times.

The reported aggregate output from this creek was $40,000 less than in 1916. About ten men are drifting on this creek this winter.

Spruce Creek.

On the Spruce Creek Power Company's leases a few men were drifting throughout the year with very indifferent results.

On the *Tobacco Box* bench lease drifting operations were in progress throughout the year. The results secured were moderate.

On the *Gladstone* bench lease and vicinity three men carried on drifting operations throughout the year. The results appear to have provided wages at camp rates, or thereabouts.

On the *Peterboro* bench lease H. O. Morse, on behalf of self and co-owners, with an average force of six men, prosecuted drift-mining throughout the year, apparently with very satisfactory results, the output aggregating over $16,000.

On the *Lovell* group of leases (three bench and one creek) Isaac Matthews had a force of from twenty to forty-three men (with an average of thirty) operating by drift-mining methods, and in ten months (period covered by returns) cleaned up over $57,000.

Those operations were practically all carried on by "laymen," who provided their own equipment.

On the *Mali* claim William Foley, with an average of four men, carried on drift-mining throughout the year with apparently gratifying results, and realizing an output of $10,000 or upwards.

On *Discovery* claim J. M. Ruffner's "laymen" prosecuted drifting operations throughout the year with fair results, but no new plant was installed as was foreshadowed in last report.

Mixed operations of open sluicing and drift-mining were carried on by Smith, Conroy & Carlson, Otto Miller and partners, Marco Pini and partners, and others, with satisfactory results in most cases; whilst J. R. Clay continued his resluicing operations in the creek-bed, as for a number of years past.

At Blue canyon W. G. Sweet operated with an hydraulic plant for about five weeks, but was compelled to close down early in June for want of water. Later in the season he commenced the construction of a dam for the conservation of the water of the South fork of Spruce creek, which will probably be utilized and made effective next season. There were about 110 people on this creek during the summer, of whom about eighty were engaged in mining.

There are about eighty people resident on Spruce creek this winter, of whom between fifty and sixty are engaged in drift-mining.

This was again the banner creek of the district from the standpoint of aggregate production, although the reported output is nearly $12,000 less than that of 1916.

Birch Creek.

On Birch creek I regret having to report another season of unsatisfactory results, owing principally to the lack of sufficient water to move the overburden of material overlying the "pay." During the early part of the season the water-supply was fairly good, but an exceptionally heavy rainfall caused the partial demolition of the reservoir dam, and during the latter part the water supply was exceedingly limited and ineffective.

I am pleased to say that the manager reports the evidence of much improved conditions at the close of the season, and the indications are that successful results may be anticipated from next season's operations.

Only from five to eight men were engaged in mining on this creek during the past season.

BOULDER CREEK.

On Boulder creek from twenty-five to thirty men were employed during the season, and ordinary sluice, hydraulic, and drift mining were pursued, with very satisfactory results to the operators as a whole, although the intermittent nature of the water-supply was somewhat embarrassing to some of the operators at times.

On lower Boulder, and on what was formerly the property of the Société Minière de la Colombie Britannique, Charles Miller carried on both hydraulic and drift mining, the former on the *Riviera* creek lease, where three men uncovered upwards of 11,000 square feet of bed-rock and recovered therefrom nearly $5,000. The drift-mining was prosecuted on the *Micobri* and adjacent leases by a force of about ten men, and with very satisfactory returns, for they secured about $16,000 as the result of their operations from January 1st to the end of October, when the returns were made.

Those drifting operations are being carried on throughout the winter by a force of about fifteen men, and with apparently equally gratifying results.

Farther up the creek, Gus Anderson, with four or five men, and J. H. Black & Co., with seven or eight men, operated throughout the season; the former by ordinary sluicing and the latter hydraulically, with fair success notwithstanding the handicap caused by the lack of proper reservoirs and conservation of the existing water-supply.

The season's output from this creek exceeded that of 1916 by over $20,000. There are about twenty men on the creek this winter, most of whom are engaged in drift-mining.

RUBY CREEK.

On Ruby creek T. M. Daulton, manager for the Placer Gold Mines Company, with a force of from thirteen to nineteen, and an average of seventeen men, commenced operations on April 26th and continued hydraulicking until October 14th.

During the period of operations they advanced up-stream 108 feet on one side and 305 feet on the other, with an average width of 250 feet, and removed and washed about 60,000 cubic yards of gravel, from which was won nearly $80,000, thus completing a very satisfactory season's operations. The water-supply was satisfactory during the greater part of the season, but on at least two occasions the supply became so scarce as to very much hamper operations, and although said company had sufficient labour to meet its requirements most of the time, there was a month or six weeks during which an additional supply would have been very acceptable and useful, but it was unobtainable. The average depth of pay-gravel was about 40 feet.

Some prospecting-work was done farther up the creek and satisfactory results reported, but no formal returns of output were made. Altogether there were about twenty-eight people on the creek during the summer, and there are about eight people on it this winter who are engaged in drift-mining.

A number of leases have been located upon the upper reaches of the creek, upon some of which development-work will likely be in progress next season, and, altogether, the indications warrant the anticipation of another very successful season on that creek.

CRACKER CREEK.

On Cracker creek O. P. Zortman, with a small crew of miners, was doing prospecting development-work throughout the season, but had no output to report. He expects to continue it next season.

WRIGHT CREEK.

Nothing was done on Wright creek during the season, owing principally to the scarcity of labour and the absence of some of the property-holders thereon who are on the "firing-line" in France and Flanders.

OTTER CREEK.

On Otter creek the Mines d'Otter, under the superintendence of W. H. Brethour and the general management of H. Maluin, commenced operations on May 1st, and with an average force

of eight men continued hydraulic operations until the end of October. Water-supply was fairly good, as they had two reservoirs to draw upon. Two and sometimes three Hendy giants were kept in operation under 230 feet pressure, and banks 130 feet in height were washed down, although the average depth (or height) of the gravel was about 85 feet. Their sluices were extended 900 feet up-stream and about 200,000 cubic yards of gravel was moved. The cost of operations was reported to be 25 per cent. in excess of that of previous seasons, due to the higher cost of wages, explosives, and cost of living. Notwithstanding this, more than sufficient gold to cover the season's operations was recovered, this being the first season they were able to do so since installation was undertaken several years ago.

However, bed-rock was fairly reached at last, and $15,000 was recovered from a very small area of bed-rock, and the indications now are that those interested will soon recover the amount of investment and be rewarded with good dividends.

There are seven men on the creek this winter, some of whom are drifting.

On upper Otter J. E. Moran did not operate during the past season owing to the unsatisfactory conditions with respect to labour and water.

Bull and Fox Creeks.

Two or three men on each were operating on Bull and Fox creeks, but the water-supply vanished so early in the season that they were unable to make any satisfactory showing.

O'Donnel River.

On O'Donnel river the O'Donnel Placers Company did not attempt to operate, and nothing worth noting was done elsewhere on the stream, except that two men spent the season prospecting on O'Donnel at the mouth of Feather creek and were sufficiently encouraged to locate two leases there in addition to some already held at that point.

Other Creeks.

Two men, and sometimes three, were prospecting on Slate creek throughout the season, but have not reported results.

Nothing was done on Wilson, Burdette, Consolation, Davenport, Hemlock, Horse, Lincoln, Rob Roy, or Volcanic creeks during the summer, but there are six or seven men on Volcanic this winter. The fact is that the men were not in the district to prosecute development or actual mining on the creeks above named.

On Graham creek two men were prospecting a good part of the season. Some gold was recovered, although none was reported.

A number of men were prospecting on outlying creeks as usual, but no new "strikes" have been reported.

Drifting operations are being prosecuted this winter on McKee, Pine, Spruce, Boulder, Ruby, Otter, Volcanic, and possibly on O'Donnel, and from 80 to 110 men are engaged in such work throughout the district.

I may remark in passing that the decrease in output this season has been on the part of the companies, the individual miners' output having actually exceeded that of the same class in 1916 by over $1,100, but both classes fell off in the matter of revenues, such as royalty tax, etc., but much the greatest falling-off was on the part of the companies.

Winter settled down upon this district last fall earlier than usual. The ground was completely covered with snow about October 20th and has not been uncovered since; there has been a much heavier snowfall up to date than for a number of years, and there was probably twice the depth of snow on the level on December 31st than there was at any time last winter. The weather was also exceptionally cold and stormy, and during a good portion of December the temperature was lower than for a number of years, or, in fact, since weather statistics have been kept at this point, the thermometer ranging from 30 degrees below zero to 65 degrees below for several days and nights together, and not rising above 30 degrees below during that period. Mining operations were suspended during the very cold weather, but are in full swing again, and a probable result of the severe weather and great snowfall is likely to be a very much increased water-supply for next season, which result is ardently desired by all who are in any way interested in the chief industry of the district.

MINERAL CLAIMS.

The scarcity of labour and capital for development purposes affected the quartz-mining industry also, so that very little beyond ordinary assessment-work was done upon any quartz properties throughout the district, with the exception of the *Engineer* mine on Taku arm and the *Maid of Erin* and associate claims in the Rainy Hollow section.

Even on the *Engineer* mine they seem to have been practically "marking time" pretty much all season, because there appears to have been one relay of "experts" after another on the property, sampling and prospecting it whilst negotiating for its purchase, but no sale has been reported up to date so far as I have heard. A force of from five to fifteen men was employed in and about the mine throughout the summer season, and a small force is operating there this winter, developing and prospecting.

I have not been favoured with any report as to methods, extent, and results of operations by either owner or manager, or as to output, etc., but from such information as I have been able to secure I am led to believe that each successive development exposes increased values and area of highly mineralized ground.

I have not received any report from the operators on the *Maid of Erin* either, but from other reliable sources I have learned that very satisfactory evidences of values resulted from the exploratory work performed upon it so far as it went, but operations were suspended in the fall and nothing is being done there this winter so far as I know.

About thirty men were engaged in prospecting and mining in one form or other in the Rainy Hollow section during the summer season.

On the Laverdiere properties the Laverdiere Bros. worked all last winter with a view to commencing to ship ore in spring, but not securing the transportation facilities and conditions they desired, they closed down in spring, and have since bonded their entire holdings to a representative of American capital who expects to commence active operations next spring or summer.

Nothing has been done towards the development of the coal-deposits in the district during the year.

Neither have any shipments of hydromagnesite been made, but the property has been bonded to English capitalists, and some activity and development may be looked for next season, provided they are not precluded by war conditions.

Following is a statistical report of work done and revenue collected at this record office during the year 1917:—

OFFICE STATISTICS—ATLIN MINING DIVISION.

Free miners' certificates (individual)	408
Free miners' certificates (company)	7
Placer records	2
Placer rerecords (representing 254 claims)	239
Leases located	10
Leases issued	8
Leaves of absence (representing 131 claims)	23
Filings	2
Bills of sale (placer)	20
Bills of sale (hydraulic)	35
Bills of sale (mineral)	19
Mineral records	40
Certificates of work	131
Filings	12
Certificates of improvements	11
Crown grants issued	10
Gold reported (individuals)	$146,646 00
Gold reported (companies)	145,937 00
Total	$292,583 00

Royalty paid (individuals)	$	2,013 65
Royalty paid (companies)		2,029 45
Total	$	4,043 10

Revenue.

Land revenue	$	8 00
Water revenue (rentals)		121 60
Free miners' certificates (individual)		1,883 50
Free miners' certificates (company)		605 00
Mining receipts (lease rentals)		2,130 00
Mining receipts (lease applications)		200 00
Mining receipts (other sources)		2,240 70
Mineral-tax (royalty)		4,043 10
Receipts from all other sources		9,444 09
Total	$	20,675 99

STIKINE AND LIARD MINING DIVISIONS.

Report of H. W. Dodd, Gold Commissioner.

I have the honour to submit the annual report on mining operations in the Stikine and Liard Mining Divisions of Cassiar District for the year ending December 31st, 1917.

The season's work, I regret to say, has produced very small returns, and in consequence a decrease in office revenue.

Placer Claims.

On Thibert creek the Dease Syndicate, handicapped by the labour shortage, made the best they could out of the unusual conditions, and to F. N. Fenton, the manager, I am indebted for the following report:—

"I arrived at the mine, on Thibert creek, April 29th, and found an unusual amount of snow remaining on the ground and the weather holding out cold. On May 1st secured what men were available and commenced the preliminary work, such as getting the flume and pipe-line in order for the early freshets.

"During the winter the large pipe-line had been hauled over by dog-teams to the Boulder Creek slope; this was laid in place, consisting of all 18-inch pipe, 800 feet in length, with an offset at foot of slope and two 18-inch valves attached, giving about a 300-foot head; a No. 6 giant was set at the foot of this line to open up pit No. 2, which is on the south side of Boulder creek; the other line was extended across to the north side of the creek to open up pit No. 3, with another No. 6 giant attached.

"This work was completed by the time the first freshets commenced on May 24th, and the Boulder Creek water was made use of, but owing to the three miles of flume, which delivers the water from Berry creek, being in such poor condition, it delayed starting a double shift until June 17th. About this date the frost commenced coming out of the ground, and the old Berry Creek slide started to settle and continued to do so until the middle of August; during this time the flume-grade had settled 27 feet, which caused considerable loss of time for those three months.

"On September 10th the water began to fall off, which made it necessary to store for four hours each day in order to get a full head for twenty hours; pits Nos. 2 and 3 were extremely rocky, and in order to get dump in pit No. 2 a great deal of rock-cut was necessary, and being almost impossible to procure rockmen in the country, progress was very slow. After piping ten days in pit No. 3 a strata of volcanic mud was encountered 30 feet in thickness, which was very tough and required blasting; old workings were uncovered lengthwise across the channel, 75 x 100 feet; these old workings seem to have been carried on at a much earlier period than

any uncovered in past seasons, judging from the condition of the timbers; none of the old-timers remaining in the country dating back to 1874 seem to know when it was done.

"Progress was slow and discouraging the entire season, being compelled to work short-handed owing to so few men left in the country, and these, with the exception of several, unreliable; Indians were tried, with very poor results, being unskilled and unsteady, not remaining on towards the close when the weather turned cold; this left a small crew to finish the season.

"On October 4th the flume broke at a point where it crossed a gravel-deposit; this occurred about an hour before daybreak, and was not noticed until the water went off at the mine. By the time the break was reached 100 feet of flume had been washed away and a cut 75 feet made, which, owing to the lateness of the season and such a small crew, it was impossible to repair; owing to this break I was unable to make the final clean-up, as had been planned for the next four shifts. A small portion of No. 3 sluice was cleaned, with satisfactory results; the other sluices were not cleared of heavy material, which made it impossible to clean up this season.

"Running-time per month as follows: June, 12 days; July, 22 days; August, 23 days; September, 24 days; October, 4 days; total for season, 85 days.

"*Rock-cut Work.*—Pit No. 2, 150 feet by 30 feet deep; pit No. 3, 125 feet by 10 feet deep.

"*Sluice Extensions.*—Pit No. 1. 48 feet; pit No. 2, 178 feet; pit No. 3, 252 feet.

"*Yardage handled.*—Pit No. 2, 148,000 cubic yards; pit No. 3, 200,000 cubic yards; total, 348,000 cubic yards."

Dease Creek.—Hanimann & Rueppe during the winter drifted out 850 square feet on the *Mabel* claim and 700 on the *Mabel Annex;* this was sluiced up and finished June 5th with good returns; the balance of the season was put in constructing a ditch and flume on the *Kangaroo* lease, on which they intend to operate the coming season.

Mosquito Creek.—Very little was done.

Deloire Creek.—With the exception of prospecting by Love & Cunningham, nothing worth mentioning was done on this stream.

McDame Creek.—Development-work was carried out on the *Princess May*, *Lion*, and *Clifton* leases, owned by the Princes May Hydraulic Company and under the management of Amos Godfrey.

QUARTZ-MINING.

The usual amount of development-work was carried out on all mineral claims to cover assessments; on the Iskut river application for Crown grants have been received from F. E. Bronson and associates for the *Red Bluff*, *Red Bird*, *Mermaid*, *Homestake*, and *Katharine Fr.*

During the fall the district was visited by R. G. Waylen, superintendent of the *Treadwell* mine, who with two assistants visited a number of mineral claims on the lower Stikine; owing to the lateness of their arrival, a short time only could be spent in their examinations; it is their intention, however, to return in the spring.

COAL.

Very little has been done the past season.

OFFICE STATISTICS—STIKINE AND LIARD MINING DIVISIONS.

Revenue collected from free miners' certificates	$ 373 75
Revenue collected from mining receipts	590 75
Revenue collected from other sources	2,902 90
Total	$3,867 40

SKEENA DISTRICT.

SKEENA AND BELLA COOLA MINING DIVISIONS.

By J. H. McMullin, Gold Commissioner.

These two Mining Divisions have been very thoroughly covered by Geo. A. Clothier, Resident Engineer, and I have nothing to add to his report. (*See* page 37 *et seq.* of this Report.)

Office Statistics—Skeena and Bella Coola Mining Divisions.

Free miners' certificates (individual)	679
Free miners' certificates (company)	6
Free miners' certificates (special)	2
Mineral claims recorded	597
Certificates of work issued	614
Bills of sale, etc., recorded	161
Filings	70
Certificates of improvements recorded	19

Revenue.

Free miners' certificates	$3,642 75
Mining receipts, general	4,021 15
Total	$7,663 90

PORTLAND CANAL MINING DIVISION.*

Report by P. S. Jack, Mining Recorder.

I have the honour to submit herewith my annual report for the Portland Canal Mining Division for the year ending December 31st, 1917.

The renewed interest shown by investors in properties in this Division and encouraging reports received from properties on which development was being carried on were accountable for a decided increase in the number of locations recorded. One hundred and eighty seven records for locations were issued; the largest number of records issued since 1911. Options were negotiated on nine properties, and on three of those properties development-work was commenced and carried on until the end of the year. Unfortunately, an exceptionally short season, due to heavy snowfalls in the late spring and a continuance of severe rain-storms in the early fall, combined with a scarcity of labour, necessitated the postponing of work, which had been projected on several properties, until the following spring. The commencement of this work, combined with a continuance of the development-work carried on during 1917, would indicate prospects for a considerable activity in this Division during the coming season.

Following are the reports received from the different sections:—

Maple Bay.

Operations were carried on in a small way on the property owned by W. Noble and associates, under bond to the Granby Consolidated Mining, Smelting, and Power Company, Limited, and shipment was made of over 5,000 tons to smelter at Anyox. A small amount of development-work was also carried on. No further construction-work was done and the property was closed down for the winter about the middle of November.

* *See also* Report of Resident Engineer, page 37.

During 1908-9 over 10,000 tons of ore was shipped from the *Outsider* group (Brown-Alaska property), but it has lain dormant until this spring, when, under the direction of D. M. Drumhellier, camp buildings and wharf were overhauled, trails rebuilt, underground workings cleaned out, several short crosscuts from the main drift were driven, and the advancement of the lower drift a distance of 21 feet. In September a contract was let to drive the lower drift an additional 300 feet. At the end of the year this work had progressed well over 200 feet.

Swamp Point.

At the Swamp Point lime-quarry operations were carried on very steadily throughout the whole year by the Granby Consolidated Mining, Smelting, and Power Company, Limited. Shipments were heavier than in 1916, averaging slightly over 4,600 tons a month. A new six-room cottage was built and work was started on the foundations for a fuel-oil-driven compressor, which it is intended to install at this point. The quarry was well able to take care of all requirements. The construction-work connecting the reserve lime-quarry, situated about half a mile up Donahue creek, to the dock was completed during the year.

Georgia River.

On the *Guggenheim* group of claims, under option to the Georgia River Mining Company, Limited, Duncan, B.C., 25 feet of 5- x 7-foot tunnel and a winze, 35 feet, were recorded. I understand the results obtained from this work were very satisfactory, and it is the intention of the mining company to erect a small mill on the property as soon as transportation arrangements can be made in the spring.

Marmot River.

On the claims in this section there is only the annual assessment-work to report.

Salmon River.

On the *Bush* property, under option to R. K. Neill and associates, work was commenced towards the end of March under the direction of Mr. Neill. A gang of fifteen men was employed on this property during the past year, and at the end of the year work was still being carried on. Camp buildings were erected; trails constructed; 62 feet of tunnel, 5½ x 7 feet, driven on the *Simpson* claim, and considerable ore has been mined. Over 70 tons of ore has been sacked, which will be rawhided out in the early spring.

The eight claims of this group have been surveyed and applications for certificates of improvements applied for.

On the *Cascade Forks* group and the *Northern Light* group, owned by Bunting Bros., 28 feet of tunnel, 5 x 7 feet, a series of open-cuts and considerable surface stripping were recorded.

On the *Boundary* group, owned by P. Daly and associates, a series of open-cuts was recorded.

On the fractional claims of the *Big Missouri* group, the *Yellowstone* group, and the *Dumas and Dickens* group, owned by D. Lindeborg and associates, a series of open-cuts was recorded.

The Mineral Hill Partnership has been formed by Messrs. Martin, Carter, Welch, Fetter, and Carlton for the purpose of carrying on development-work on the *Little Joker* group, comprising three claims, *Little Joker*, *Midas*, and *Mineral Hill*, joining the *Big Missouri* group on the west. Specimens taken from a strong lead on this property assayed well over $100. Under the direction of Mr. Welch work will be commenced as soon as supplies can be hauled to the property in the spring.

Crown grants have been issued for the following claims in this section: *Edith*, *Sullivan*, *Lois*, *Daley*, *Brookland*, *Forty-five*, and *Cascade Falls No. 5*.

Bear River.

At the *Prince John* group, comprising twenty claims under bond to the Granby Consolidated Mining, Smelting, and Power Company, Limited, in the fall months a construction gang erected a bunk and mess house to accommodate a crew of twenty men. A setting shack was also built near here for the diamond-drillers. Storage-sheds for supplies were also erected on each side of Bear river on the trail to the camp. Up to the end of December approximately 1,100 feet of drilling had been completed. It is intended to keep a diamond-drill crew at work here through the winter months, the necessary supplies having been packed in.

On the *Molly B.* group of claims, owned by J. W. Stewart and associates, a series of open-cuts and clearing and grading 600 square feet for tunnel-site were recorded.

On the *Mayflower* group, owned by Gibson & Woodmore, 20 feet of tunnel, 5 x 7 feet, was recorded.

George Copper-mines.—Owners, W. B. and R. George. On the *Copper Queen* claim 32 feet of tunnel, 5 x 7 feet, was recorded.

On the *Rufus* group, owned by Erickson and associates, an open-cut of 46 feet, averaging 4 x 4 feet, was recorded.

On the *Casino* group, owned by H. McP. Martin, 5 feet of tunnel, 4 x 6 feet, and an open-cut of 52 feet, averaging 7 x 3½ feet, were recorded.

Glacier Creek.

The Alice Arm Mining and Development Company, bonders of the *Lake View* group of claims, let a contract for the driving of 150 feet of tunnel. This work was completed at the end of the year and a further contract will be let early in the coming spring.

On the *Ruth and Francis* group, owned by Nesbitt & Archie, 20 feet of tunnel, 5 x 6½ feet, was recorded.

Office Statistics—Portland Canal Mining Division.

Free miners' certificates (individual)	94
Mineral claims recorded	187
Mineral claims recorded (placer)	1
Certificates of work issued	174
Bills of sale, etc., recorded	56
Filings	29
Certificates of improvements recorded	7

Revenue.

Free miners' certificates	$ 448 75
Mining receipts, general	1,225 90
Total	$1,674 65

QUEEN CHARLOTTE MINING DIVISION.

The Gold Commissioner failed to submit an annual report on mining operations in the Queen Charlotte Mining Division for the year 1917, sending only the office statistics.

Office Statistics—Queen Charlotte Mining Division.

Free miners' certificates	57
Mineral claims recorded	45
Certificates of work issued	85
Bills of sale recorded	3
Powers of attorney recorded	33
Placer leases applied for	8

Revenue.

Free miners' certificates	$241 75
Mining receipts, general	666 25
Total	$908 00

NORTH-EASTERN DISTRICT (No. 2).

REPORT BY JOHN D. GALLOWAY, RESIDENT ENGINEER.

INTRODUCTORY.

Under the provisions of the "Mineral Survey and Development Act," which came into force about May, 1917, the four Mining Divisions of Omineca, Peace River, Cariboo, and Quesnel were made to constitute the North-eastern Mineral Survey District, with the permanent survey station and office at Hazelton. The Resident Engineer assumed office about the middle of June and at once commenced field-work in the district, continuing until the middle of October, when weather conditions made further examinations impracticable.

Applications for assistance in building roads and trails to mineral claims and mining camps, as provided for in the "Mines Development Act," were numerous in various parts of the district. Examinations and reports on these applications occupied nearly the whole of the field season; but when going into a section to examine a particular claim or group for road requirements, opportunity was afforded for the examination of most of the more important claims in that vicinity; and, generally, in visiting the different parts of the district where applications for roads and trails had been made, it was possible to acquire all the needed information regarding the active mining going on.

The field season in this district was particularly short this year owing to the snow of the previous winter remaining in the mountains above timber-line until late in July, and also to the fact that winter came unusually early, the mountains being covered with snow early in October, which remained for the winter. Had the season been longer opportunity would have been afforded for examination of several camps and districts of which at present but little definite information is available, but which are believed to be of some promise.

An important geological investigation was carried out during the season by Dr. J. J. O'Neill, of the Canadian Geological Survey. This consisted of the topographic and geologic mapping of a fifteen-mile sheet, taking in Glen, Nine-mile, and part of the Rocher Déboulé mountains and including the towns of Hazelton and New Hazelton. The topographic work was under the direction of S. S. Falconer, of the Survey staff, and Dr. O'Neill was assisted by V. Dolmage with the geological work, which included, as well as the areal geology, a special economic investigation of the ore-deposits in this district.

The North-eastern District is so large, nearly 100,000 square miles of territory, that for the purposes of this report and succeeding ones it is advisable to subdivide it into a number of smaller areas. In the first place, it is already divided into the four Mining Divisions as already mentioned. The following subheads are proposed and will be used in this report:—

Omineca Division—Skeena River Sub-district; Hazelton Sub-district; Telkwa Sub-district; Manson Sub-district.

Cariboo Division—Barkerville Sub-district; Fort George-Fraser River Sub-district.

Quesnel Division—Quesnel River Sub-district; Timothy Mountain Sub-district.

PRODUCTION OF DISTRICT AND GENERAL SUMMARY.

The mineral production of the North-eastern District for 1917 was a little less than in the year 1916. The principal reason for this decrease in value of output was, first, a smaller production of placer gold in all parts of the district, and, secondly, to the fact that the two principal lode mines—the *Rocher Déboulé* and *Silver Standard*—were only shipping during one-half of the year. Both these mines are in shape, however, to make a good production in 1918. There were, however, a greater number of small shippers in 1917 than in any previous year, which is an encouraging sign for the future. The lode-mineral production of the district comes almost entirely from the Hazelton-Telkwa section, while the bulk of the placer gold is obtained from hydraulic mines close to Barkerville, in the Cariboo Division.

Lode-mining in the vicinity of Hazelton and Telkwa has not progressed as rapidly during the last three or four years as had been anticipated in 1913, when the first ore shipments were made. The Grand Trunk Pacific Railway was completed in 1914, and it was expected that following this a rapid development of the mineral showings would ensue. While the boom predictions have not been realized, still it must be remembered that many reasons for this slow development can be advanced. Chief amongst these are the lack of capital for new mining enterprises owing to the war, and the fact that many of the showings in this district are not large enough to attract the attention of the large mining companies. Several properties in the district which have undoubted merit have been taken up by individuals or small companies which have lacked sufficient capital to carry out a vigorous development policy. Many properties are situated at some distance from the railway-line, and the transportation problem is therefore a difficult one to overcome. The vigorous policy of the Government in building, or assisting towards building, roads and trails to these at present inaccessible properties will undoubtedly within a short time give results in the shape of increased production.

The following table shows the mineral production of the North-eastern Mineral Survey District for the year 1917:—

	Omineca.		Cariboo.		Quesnel.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
Gold, placer.....oz.	600	$12,000	6,750	$135,000	750	$15,000
Gold, lode.....oz.	931	19,244	....	....	....	....
Silver.....oz.	82,311	63,668	....	....	....	....
Lead.....lb.	271,885	21,506	....	....	....	....
Copper.....lb.	852,373	231,675	....	....	....	....
Zinc.....lb.	364,097	27,548	....	....	....	....
Miscellaneous materials.....	....	1,500	....	2,756	....	....
Total values.....	....	$377,141	....	$137,756	....	$15,000

Total value mineral production, North-eastern District, $529,897.

It will be noted that in the above table Peace River Division does not figure at all; so far as is known, no mineral production has ever been officially recorded from this Division. Prospecting for placer gold has been done on the Peace river and tributary streams, and probably small amounts of placer gold have been taken out in this way; it is certain, however, that this has never amounted to more than a few hundred dollars in a season. As a hopeful sign for the future, it may be noted that fifteen dredging leases were taken up in this Division during the summer of 1917. Systematic prospecting of these leases, to test them for dredging possibilities, will be carried out next year by the lessees, Wadley & Galbraith.

The production of zinc was entirely from the *Silver Standard* mine, and the greater part of the silver and lead production was also from this property.

The copper production comes largely from the Rocher Déboulé Copper Company's mine. This property made a smaller production than in 1916 owing to shipments being suspended almost entirely during the first half of the year. Development during that time was successful in finding ore-bodies from which shipments were made in the latter months of the year.

The production of silver, lead, and zinc from the *Silver Standard* was about the same as in the previous year, but only represents operation on a small scale. During the latter half of the year practically no mining was done, as all the available labour was placed on the work of equipping the property with a new power plant and the new buildings of various kinds at the mine, and the building of a 50-ton concentrator to treat the ore. A much larger production from this mine next year is confidently expected.

A little over 75 per cent. of the lode-mineral production credited to the North-eastern District comes from the vicinity of Hazelton. Of the remainder most of it comes from the Telkwa Sub-district, with, this year, two shipments recorded from the Skeena River Sub-district.

As before noted, the placer production comes mainly from the Barkerville section of the Cariboo Division, although each year some production is recorded from Quesnel Division and

the Manson Sub-district. The production comes mainly from half a dozen hydraulic mines, the percentage of the total returns which is made by the aggregate of small-scale individual operators being small.

In the following table is given a list of the shipping properties, with tonnages produced:—

Sub-district.	Mine.	Tonnage.	Character of Ore.
Skeena River	M. & K.	123	Silver-lead-copper.
"	Frisco	10	Silver-copper.
Hazelton	Rocher Déboulé	2,889	Copper.
"	Cap	29	"
"	Highland Boy	75	"
"	Silver Standard	671	Silver-lead-zinc.
Telkwa	Santa Maria	239	Copper-silver.
"	Cronin	79	Silver-lead.
"	Harvey	10	Silver-copper.
"	Higgins	10	Silver-lead.
"	Copper Crown	19	Copper.
"	Schufer	5	Silver-lead.
Total		4,159	

It will be noted that as yet there are only two important shippers—viz., the *Rocher Déboulé* and the *Silver Standard*, both situated in the Hazelton Sub-district. The Telkwa Sub-district contains a larger number of shippers than elsewhere, but the tonnage produced is small. With the improvement of transportation conditions there is every reason to look for a larger production in the future from this sub-district.

SUMMARY OF WORK.

The greater part of the field season was spent in examinations of properties with respect to which applications had been made for Government assistance in building roads or trails. Under the "Mines Development Act," any owner of a mineral property may apply to the Hon. the Minister of Mines for financial assistance in building a road or trail to his property. These requests are referred to the Resident Engineer, who examines and reports on each property. As might be expected, numerous applications for roads and trails are made to which aid cannot be given, as the mineral showings are not sufficiently encouraging to warrant the expense. When it is decided that assistance is to be given, the Public Works District Engineer reports on the estimated cost, a grant is made from the Mines Development Fund, and the construction is carried out by or under the supervision of the Public Works Engineer. The responsibility of the Resident Engineer ceases when he makes his report on the particular mineral property under consideration.

The number of requests for roads and trails in the past year in this district were undoubtedly more numerous than is likely to prove the case in future years, with the result that the Resident Engineer's time was chiefly taken up with them. Co-operation with the engineers of the Public Works Department was complete and many conferences were held.

The building of a thirty-mile sleigh-road from Telkwa to Cronin's mine was the most important piece of road-work in aid of mining carried out during the year. The road, which was not completed until late in the fall, is so laid out that it can be gradually improved until it is a good wagon-road.

Another road on which considerable improvements were made during the year was the *Santa Maria* mine road. This road, which commences at Telkwa, was built as a sleigh-road in 1916 by the owners of the mine. With the improvements effected this year, the road is a good wagon-road to within eight miles of the property, and also some heavy grades have been cut down. This road is a development road providing transportation for a large district. It runs from Telkwa up the Telkwa river for eighteen miles, and then up the North fork of the Telkwa river. There are a large number of mineral claims up the Telkwa river and its tributaries, on which more or less development-work has been done, which will be benefited by this road. Some further development on some of these properties should be induced, because of the fact that transportation of supplies, etc., is now easier than before.

Improvements and repairs to the *Silver Standard* road from Hazelton were effected during the year. The upper part of the *Rocher Déboulé* mine road from Skeena Crossing was relocated and built during the year, and this road was extended from the *Rocher Déboulé* camp to the *Highland Boy* tram terminal, a distance of two miles. Improvements and repairs to many trails were made.

In the Cariboo District several road and trail applications were reported upon, but most of the properties were found to be in such an undeveloped condition that roads were not warranted; improvements to trails were, however, made. This district is well supplied with trunk roads which are good enough for auto travel.

Many of the properties examined for road and trail requirements were claims not previously reported on in the Mines Department Reports, and so these are described fully in this report. As far as was practicable, when going into a district to examine one group of claims, adjoining groups were also looked at.

EXTENT AND GEOGRAPHIC FEATURES OF DISTRICT.

The North-eastern Mineral Survey District embraces four Mining Divisions — namely, Omineca, Cariboo, Quesnel, and Peace River—with an area of nearly 100,000 square miles. It occupies a large part of the northern central portion of British Columbia, its western boundary being, roughly, 100 miles from the Coast, its northern and southern boundaries being about 200 miles from the respective Provincial boundaries, and its eastern boundary being the British Columbia-Alberta Boundary-line.

The northern, western, and southern boundaries of this district are the arbitrary boundary-lines of the Mining Divisions, but these, where practicable, always follow the watersheds of the country. The western boundary is well marked, following, as it does, the divide of the Coast mountains. The southern boundary extends from the Coast mountains easterly across the Fraser plateau, following a much less definitely marked watershed to the Rocky mountains, where the line crosses obliquely the axis of the mountains. The northern boundary is country which is virtually unexplored, the Liard Mining Division.

This district is a part of the Province frequently referred to as "Northern British Columbia," all of it lying north of latitude 52 degrees, and extending up to latitude 58 degrees. A large part of the district is as yet very little known and many sections are hardly explored.

The North-eastern Mineral District covers such an immense area that its topography embraces many widely different types. An almost infinite variety of mountain shapes and reliefs can be seen, giving way in places to great expanses of plateau areas. Lakes are numerous and many large rivers are included in the district.

In a general way this district consists of a section from the divides of two systems of mountains, with a plateau area—including mountains—lying between. The Peace River Division is not included in this consideration, as it lies to the east of the Rockies system, and most of it belongs geologically and topographically to the Great Plains of the North-west.

Mountain Nomenclature.

The following table gives a classification of the mountain systems and ranges and plateaux in this district, which follows a general and comprehensive classification for the Cordilleras of Canada which has been adopted by the Geographic Board of Canada.

In explanation of the plan it may be said that the Geographic Board is trying to secure uniformity in the scheme of nomenclature for the mountain masses of Western Canada. The Cordilleras of Canada are divided into three main belts, Eastern, Central, and Western. Each of these belts is divided into systems, which are in turn divided into mountains or plateaux; these are further subdivided into ranges, groups, peaks, etc. The scheme of classification is hoped to take in all mountain masses and plateaux in Western Canada in a comprehensive system which is sufficiently elastic to allow for expansion as is made necessary by the naming later on of at present unnamed mountains.

The accompanying table gives the classification for the whole Province as adopted by the Geographic Board, of which only a part, however, applies to the North-eastern District. This system of nomenclature will be followed hereafter in these Reports.

Cordilleras of Canada.

Belts.	Systems.	Mountains or Plateaux.	Ranges, Groups, or Plateaux.
Eastern	Rockies system	Rocky mountains	Hughes range. Bristol range. Livingstone range. Palliser range. Other ranges and groups.
		Franklin mountains	Unnamed ranges.
		Mackenzie mountains	Sayunei range. Tigonankweine range. Other ranges and groups.
	Arctic system	Richardson mountains	Unnamed ranges and groups.
Central	Columbia system	Selkirk mountains	Purcell range. McGillivray range. Moyie range. Slocan group. Nelson range. Other ranges and groups.
		Monashee mountains	Christina range. Midway group. Other ranges and groups.
		Cariboo mountains	Unnamed ranges and groups.
	Interior system	Fraser plateau	Bonaparte plateau. Arrowstone plateau. Other plateaux, ranges, or groups.
		Nechako plateau	Ootsa-Francois plateau. Nadina mountain. Other plateaux.
	Cassiar system	Stikine mountains	Klappan range. Groundhog range. Other ranges.
		Babine mountains	Unnamed ranges and groups.
		Un-named mountains	Unnamed ranges and groups.
	Yukon system	Yukon plateaux Isolated mountains	Teslin range. Glenryon range. Pelly range. Unnamed plateaux and ranges.
Western	Pacific system	Bulkley mountains	Zymoetz range. Seven Sisters group. Rocher Déboulé range. Hudson Bay group.
		Coast mountains	Tahtsa range. Whitesail range. Telkwa range. Unnamed ranges.
		Cascade mountains	Unnamed ranges.
	Insular system	Vancouver Island range Queen Charlotte mountains St. Elias mountains (part)	Unnamed ranges and groups.

The table given above will now be considered in further detail as far as it applies to this district. In the North-eastern District the Eastern belt is represented by the Rockies system, which is made up of the Rocky mountains and other mountains not yet named or wholly explored. The Rocky mountains at this latitude are made up, as in the south, of several distinct range units, but no definite names have yet been assigned to these ranges. Individual peaks, as Mount Selwyn and others, have been named, and in time names will be adopted for the ranges.

The Rocky Mountain trench, which is the most important master valley in the Cordilleras of Canada, is occupied in this district by the Fraser river, and to the north by the Parsnip river flowing north and the Finlay river flowing south. The junction of these rivers forms the Peace, which breaks easterly through the Rocky mountains and flows through the centre of the Peace River Division into Alberta. The Rocky Mountain trench forms the dividing line between the Eastern and Central belts of the Cordillera of Canada.

The Columbia system of mountains and plateaux lies immediately to the west of the Rocky Mountain trench; this system is represented in the south by the Selkirk mountains and others, and in the North-eastern District by the Cariboo mountains.

The Cariboo mountains embrace a number of ranges which are in part named, but for the present it is not advisable to attempt to fix definite names to these ranges.

Lying to the west of the Cariboo mountains is the great system of plateaux and isolated mountain ranges and units, to which the name "Interior" system has been given. This area is the typical plateau part of the Cordilleras, to which Dawson gave the name Interior plateau. It has been recognized that the country previously known as the Interior plateau should be subdivided into systems of plateaux and mountains; therefore the general name Central belt is applied to this area and the belt is divided into the Columbia, Interior, Cassiar, and Yukon systems.

The Interior system consists essentially of plateaux and isolated hills. The different character of the plateau area in the southern and northern portions of the Province is distinguished by the division of the system into the Fraser and Nechako plateaux. In the northern part of the Omineca Division cross mountain ranges running east and west are known to exist, and in time these will be given some distinctive names. The North-eastern District contains a portion of the Fraser plateau and all of the Nechako plateau.

The Fraser plateau is an uplifted peneplane which is dissected by deeply carved valleys. The general elevation is from 3,000 to 5,000 feet above sea-level, while the main river-valleys are from 1,000 to 3,000 feet below the general level. Conspicuous outstanding hills are not numerous, although some occur.

The Nechako plateau is reached by a gradual transition of the Fraser plateau at its northern end. No sharp line of demarcation can be drawn, but comparing areas far apart the difference can easily be seen. This plateau has a general elevation of about 3,000 feet above sea-level, but the river-valleys are not cut down as in the Fraser plateau; as a rule they are but slightly below the average level. Isolated hills, mountains, and small ranges rising from 2,000 to 4,000 feet above the general plateau-level are numerous and accentuate the physiographic difference between the Nechako and Fraser plateaux.

The Nechako plateau is the greatest lake region in British Columbia. This is caused by the flat nature of the country and lack of relief. Many large lakes occur, including Babine, Stuart, Francois, Oosta, Eutsuk, Whitesail, and Tahtsa, together with countless smaller ones ranging in size from a few miles in length down to ponds. This network of lakes with many connecting streams will some day prove of value in providing transportation facilities when the settlement of the country causes the necessity.

The Cassiar system includes a number of mountain ranges and groups and plateaux in the northern portion of the Province and east of the Pacific system. The Cassiar system is divided into the Stikine, Babine, and other mountains not at present named. These are further subdivided into ranges and groups, most of which are at present unnamed. In the North-eastern District the principal representatives of this system are the Babine and Groundhog ranges and other unnamed ranges around the headwaters of the Skeena river.

The Pacific system in this district is represented by the Coast mountains and the Bulkley mountains. The name "Bulkley" applied to mountains is a new one and has been coined in order to include in one definition a number of ranges which logically should be grouped together. These ranges—viz., the Zymoetz, Seven Sisters, Rocher Déboulé, and Hudson Bay ranges—are geologically and to some extent physiographically related to one another, and yet they, as a whole, form a series of mountains distinct from the Coast mountains. Their relationship to the Coast mountains, however, is such that they belong to the Pacific system of the Western belt rather than to the Cassiar system of the Central belt.

The Coast mountains embrace what was formerly understood by the Coast range, and while in places these mountains are a single defined range unit, as a rule many ranges are included.

As subdivisions of the Coast mountains the Telkwa, Whitesail, and Tahtsa ranges are recognized and many others will be named in the future.

WATER SYSTEMS.

Three large river systems provide drainage for practically the whole of this North-eastern District. These are the Fraser, Peace, and Skeena rivers, together with their network of tributary streams; of these the first two each have larger drainage-basins than the Skeena.

The Fraser river rises in the south-eastern corner of the district in the Rocky mountains and flows north-westerly in the Rocky Mountain trench for 250 miles. Near Fort George the river makes a great bend and flows nearly southerly, and continues in this direction with a slight trend easterly for a distance of 400 miles to Hope, where it turns sharply to the west and cuts through the Coast mountains to the sea at New Westminster.

At Fort George the Fraser river receives an important tributary in the Nechako river. This stream drains the large lake area lying south of the Grand Trunk Pacific Railway, including Francois, Ootsa, and Eutsuk lakes, and also takes the waters of Stuart lake and the surrounding district by means of the Stuart river.

Other tributaries of the Fraser in this district are the Salmon river from the north, the Blackwater river from the west, and the Quesnel river from the east. The last steam drains Quesnel lake—a big sheet of water—and joins the Fraser at the town of Quesnel.

The Peace river is formed by the junction of the Finlay river flowing south and the Parsnip river flowing north, both streams occupying portions of the Rocky Mountain trench. The Peace river from its commencement flows nearly due east, breaking through the Rocky mountains and flowing through the centre of the Peace River Division and into Alberta, where it joins the Mackenzie River system flowing into the Arctic ocean.

Important tributaries of the Peace River system in this district are the Ingenika and the Omineca rivers from the west, which flow into the Finlay river, and the Nation river, also from the west, joining the Parsnip river.

The Skeena river rises in the Cassiar system of mountains and flows in an irregular manner southerly to Hazelton, where it breaks through the Pacific system of mountains to the sea at Essington; this portion of the river has a general south-westerly course. The most important tributary of the Skeena is the Bulkley river, which rises in the almost imperceptible divide of the Nechako plateau and flows north-westerly to the Skeena at Hazelton. The valley occupied by this river forms a line of separation between the Babine mountains of the Cassiar system and the Bulkley mountain of the Pacific system and takes water from both.

Babine lake, lying to the east of the Babine mountains, drains to the Skeena by the Babine river, which comes in above Hazelton.

Summarizing, the drainage of this district is in part to the Arctic ocean by the Peace river and in part to the Pacific ocean by the Fraser and Skeena rivers.

GEOLOGIC DISCUSSION.

The purpose of this part of the report is to refer briefly to the different geologic investigations that have been carried out in the district; the references given will direct those interested where to look for further information.

Detail geological work has been done only in a few small areas in this district, most of the geological investigations having been of an exploratory and reconnaissance nature. The Geological Survey has carried out quite a good deal of investigation in many parts of the district, while the Reports of the British Columbia Mines Department contain many references to the geologic features, with special attention to economic geology.

More geological investigation has been done in the Hazelton-Telkwa region than in any other part of the district. In that section the work of Leach, Malloch, and McConnell, of the Geological Survey, from 1906 to 1912 outlined the rock formations and ascribed them to their proper time periods; some attention was directed also to economic geology. This work in this part of the district was also valuable, in that it worked out the geology of a relatively small area which is typical of a much larger area to the north and south along the eastern border of the Coast mountains. This work therefore provided a starting-point with which to correlate the results attained in reconnaissances to the north and south, and also to some extent easterly.

An important reconnaissance to the north was made by Malloch in 1912, when he examined up to and including the Groundhog coalfield. A reconnaissance to the south was made by the writer in 1916, from which considerable information was obtained.

The probable reason that a considerable amount of geological work was done by the Survey in the Hazelton-Telkwa region was, of course, owing to the interest attracted thereto by the construction of the Grand Trunk Pacific Railway, and by the widespread evidences of mineralization and the numerous exposures of coal-bearing formations. This work of the Survey has been of considerable value to the district not only in helping prospectors and miners, but also in bringing to the attention of the mining public the character of the ores found.

In continuation of this work, during the season of 1917 Dr. J. J. O'Neill, of the Survey staff, was detailed to make an examination of a small area surrounding Hazelton; in connection with this a topographic map of the area was made by S. S. Falconer, of the Survey staff. The country mapped was an area fifteen miles square taking in a part of the Rocher Déboulé range, Glen and Nine-mile mountain, and including the towns of Hazelton and New Hazelton.

Besides completing the geologic mapping of the area, O'Neill made an exhaustive study of the ore-bodies in the district, from which much useful information is expected.

This work of O'Neill's this year was of a small area, and the geological features were therefore worked out in much greater detail than had been previously done in any part of the Hazelton-Telkwa district.

Another area in the North-eastern District which received attention from the Geological Survey at an early date was the Barkerville region in the Cariboo Division. This was examined and geologically mapped in 1885 and 1886 by Amos Bowman, but since that time no further work has been done by the Survey.

This section of British Columbia has been reported on at intervals from 1860 onwards. In fact, the early reports of the Mines Department consisted almost entirely of a description of, and tabulation of returns from, the Cariboo District. The last detail report on the district as a whole was made by W. Fleet Robertson, Provincial Mineralogist, in 1902. In 1914 the writer spent a short time in the Barkerville section, his notes regarding the various properties being published in the Annual Report of that year. The Gold Commissioner's report each year records general information about the district.

Important reconnaissances of portions of the district from Francois lake southerly through the Fraser plateau were made by Dawson in 1875 and 1876. Reconnaissances by Selwyn and McConnell of the Peace, Omineca, Ingenika, Finlay, and Parsnip rivers were made many years ago. Further information about this vast expanse of almost unknown country was obtained by W. Fleet Robertson in 1906 and 1908. All this work was, of course, in the nature of extremely rough reconnaissance, and no attempt was made to classify the rock formations other than as to their petrographic composition.

The Peace River Division, which lies to the east of the Rocky Mountain divide, forms a distinct area, differing materially from all the rest of the district. Topographically and geologically it belongs to the North-western plains and is largely covered with rocks of Cretaceous age. It is unlikely that it will prove a promising field for metalliferous minerals, but it is known to contain immense resources in coal, which cannot, of course, be utilized at the present time.

A report on the coalfields of the Peace River Division was made for this Department in 1912 by C. F. J. Galloway, and published in the Annual Report of the Minister of Mines for that year. This report shows that there are cropping out along the Peace river a number of seams of bituminous coal of excellent quality. Most of the seams described in the report are small, from 2 to 4 feet thick, but there are said to be others which are larger. The analyses of this coal show it to be of such excellent quality that it is probable that the field will be investigated at some time in the future.

In some of the sedimentary horizons of the Cretaceous strata in this Division there is a possibility of oil and natural gas being found in commercial quantities. Indications of these are known to occur, but very little investigation has been carried out as yet.

In the following table is given a list of the more important reports on this district, in addition to which numerous references can be found in the Summary Reports of the Geological Survey and the Annual Reports of the British Columbia Department of Mines:—

Name of Author.	Publication.	Year.	Page
Dr. Geo. Dawson	Geological Survey of Canada	1875	233
"	" "	1876	17
"	" "	1879	Pt. B
"	" "	1888	73R
Amos Bowman	" "	1887-8	Pt. C
R. G. McConnell	" "	1894	5C
W. Fleet Robertson	Minister of Mines' Report	1905	89
"	" "	1906	101
"	" "	1908	66
"	" "	1911	95
"	" "	1912	65
W. W. Leach	Geological Survey of Canada, Summary Report	1906	35
"	" " "	1907	19
"	" " "	1908	41
"	" " "	1909	61
"	" " "	1910	91
G. S. Malloch	" " "	1911	92
R. G. McConnell	" " "	1912	55
G. S. Malloch	" " "	1912	69
"	" " "	1912	103
W. M. Brewer	Minister of Mines' Report	1914	101
John D. Galloway	" "	1914	176
J. D. MacKenzie	Geological Survey of Canada, Summary Report	1915	62
Chas. Camsell	" " "	1915	70
John D. Galloway	Minister of Mines' Report	1916	134

OMINECA MINING DIVISION.

SKEENA RIVER SUB-DISTRICT.

The Skeena River Sub-district may be defined as the territory contiguous to the Skeena river between Copper City and Skeena Crossing—both stations on the Grand Trunk Pacific Railway. Along this stretch of the Skeena a number of streams drain the mountains forming the Zymoetz and Seven Sisters ranges. In these ranges, and particularly around the headwaters of the different streams, mineral claims in great numbers have been staked in the last ten years. Most of these are quite undeveloped, and as yet only a few small shipments of ore have been made from any of them. The more important streams on which claims have been staked are the Zymoetz river, Kleanza, Chimdemash, Legate, St. Croix, and Fiddler creeks.

Kleanza Creek.

Kleanza creek is a small tributary of the Skeena river, entering it from the eastern side opposite the town of Pacific, on the Grand Trunk Pacific Railway. The creek is about twenty miles long, rises in the Zymoetz range, and flows almost due westerly. This name "Zymoetz range" has been used to designate a group of mountains lying to the east of the Coast mountains; the Zymoetz range is bounded by the Zymoetz and Skeena rivers on the south and west and merges into the Telkwa mountains on the east and the Seven Sisters group to the north. The range is drained by the Zymoetz and its tributaries and by Kleanza, Chimdemash, St. Croix, and Legate creeks.

This section of country is very rough; the mountains, while not attaining great elevations, are rugged in the extreme. The highest peaks rise to between 6,000 and 7,000 feet, but as timber-line is at about the 4,000-foot contour a considerable portion of the mountains are above timber-line. The influence of the moist Coast climate which prevails throughout this district is plainly evident, dense vegetation covering all the lower slopes, thus making progress through the bush difficult.

The Zymoetz range consists in part of rocks belonging to the Kitsalas series, in part of intrusive granitic and dioritic batholiths and dykes, and to some extent of the Hazelton formation.

The rocks showing at the head of Kleanza creek, on those claims examined, are mainly part of the volcanic complex assigned to the Kitsalas series. Some bands of highly altered limestone and other flint-like rocks, which are apparently highly metamorphosed sediments, were also noted. Intrusive diorite was seen in one place and also some granitic dykes of an acid type.

The volcanic rocks observed here and assigned to the Kitsalas series are as a rule porphyritic in texture and generally approaching an andesite in composition. Dykes are by no means plentiful, although some of the rock formation may consist of true dykes which have been so folded after injection as to appear part of the original volcanic complex. The whole series is considerably metamorphosed, folded, flexed, and broken, and is characterized by an abundant development of epidote throughout; this development of epidote is a typical feature of the Kitsalas series wherever it is observed.

The so-called "veins or mineralized dykes" occurring in this district closely resemble sheeted zones, but are often indefinite and irregular. These sheeted zones striking through the porphyritic volcanic rock are often of considerable width and carry varying amounts of copper minerals. They consist of parallel fractures stretched across a width of 10 to 100 feet, in which the fractures are wholy or in part filled with calcite and ore-minerals. The fractures vary in width from a knife-blade seam up to several inches. In places these fractures are quite close together, and in others are separated by from 1 to 10 feet of rock-matter. Replacement of the wall-rock of the fractures by ore-minerals has taken place in some instances, but is, as a rule, an unimportant feature. Where the parallel fractures are close together, the whole width of rock-matter and contained ore-filled fractures carries an appreciable copper content, which, under certain circumstances, may be of commercial value. The ore-carrying zones or "veins" are supposed to be continuous in length for great distances. While this cannot at present be proved or disproved, it seems probable that the zones are irregular and broken, and that, as there are many of them, some line up in position very closely with others at some distance away. The question of the continuity is not important at present, as many other features of the deposits remain to be proved first in a consideration of their economic value.

The claims at the head of Kleanza creek are reached by a trail commencing opposite the town of Usk. The trail follows up the north side of the creek all the way to the forks. For eleven miles the trail is in good condition, as it is on benches above the creek and keeps to a uniform grade. Beyond the 11-mile post the trail is in bad shape and should be repaired. This part of the route can be improved most effectually by putting in a new trail following the gravelly creek-bottom. This new route has been cruised out by J. D. Wells, who says it would prove satisfactory.

Very little development-work has been done on any of the claims yet, and none are in shape to ship any considerable tonnage of ore. It is impossible to say whether or not the district will develop any mines in the future, but the greatest possibility is along the line of developing a large tonnage of low-grade ore. Mining in a small way the small high-grade seams, hand-sorting and shipping by wagon, would not probably prove a profitable proposition. A great deal more development than has yet been done can quite easily be accomplished with the present mode of transportation—by pack-trail.

For the further development of the claims on this creek a wagon-road is not at present required, but a good pack-trail is, of course, a necessity. The building of a wagon-road would entail considerable expenditure, and the mineral-showings in their present stage of development do not warrant this expenditure.

Lowrie Group. This group, formerly known as the *Avon* group, consisting of three claims owned by Richard Lowrie and L. E. Moody, is situated on a small tributary of the South fork of Kleanza creek, about half a mile above the forks. The showings are in a small gulch at an elevation of 3,250 feet. The work done consists of two open-cuts and a tunnel in 5 feet, which was blocked with the snow in the gulch at the time of examination.

At this place there is a band of limestone which has been intruded by dioritic rock. The limestone is highly altered to crystalline limestone, epidote, garnetite, lime silicates, etc. The limestone is broken up by the intrusive rock and brecciated zones are common. Slight mineralization with chalcopyrite and bornite occur through the garnetite, but in an irregular manner and without very definite strike. The showings seen were unimportant as regards copper content, and assays taken failed to show anything but traces of gold and silver. Another open-cut, which was not examined, is said to contain a nice showing of bornite.

Wells Group. This group is situated on the mountain at the head of the South fork of Kleanza creek, practically on the Kleanza Creek-Copper River divide. There are five claims in the group, which is owned by J. D. Wells, Lee Bethuren, and E. T. Hamblett, of Usk. The property is reached by trail from the cabin camp near the forks of Kleanza creek. This trail runs up the South fork of Kleanza creek to its head and over the mountain at the head, with numerous branch trails to various claims.

No permanent camp has been erected on this property as yet, tents being utilized when the annual assessments are being done. Comparatively little development-work has been done, not sufficient, in fact, to enable a fair determination of the possibilities of the property.

There are three ore-zones on the property designated as Nos. 1, 2, and 3 veins. No. 1 vein is a sheeted zone with a general strike of N. 85° W. (mag.) and dip to the south at 65 degrees. The small fractures are from ½ to 2 inches wide and are filled with calcite, chalcocite, and bornite. These fractures are in places close together, sufficiently so as to constitute good ore across 4 to 6 feet. Between the fractures some replacement of the wall-rock has taken place, minute grains of chalcocite predominating. At an elevation of 4,650 feet a tunnel 20 feet in length has been driven on this zone and at the face shows considerable mineralization. A sample taken across 4 feet at the face of this tunnel assayed: Gold, trace; silver, 2.3 oz.; copper, 9.5 per cent. Oxidation of the copper sulphides at and near the surface has produced some copper carbonates, cuprite, and native copper.

No. 3 vein is exposed nearly at the top of the mountain and striking N. 60° E. (mag.). An open-cut shows an irregularly mineralized sheeted zone at least 30 feet in width. The rock formation has a porphyritic texture and varies from andesite to diorite porphyrite, and again the mineralization is in small fractures, with some replacement in the wall-rock between. A sample cut across 10 feet on assay returned: Gold, trace; silver, 0.45 oz.; copper, 0.5 per cent.

The No. 2 vein is exposed in a bluff at an elevation of 4,800 feet; practically no work has been done on it, the exposure being natural. This ore-zone is of the same type as the others, and at this point fairly good mineralization is apparent across a width of 10 feet, with another 10 feet mineralized in a scattered manner. A sample taken across 10 feet of the best-mineralized portion of this ore-zone returned the assay: Gold, trace; silver, 3 oz.; copper, 4.2 per cent.

Peerless Group. This group of seven claims, which is owned by O. T. Lindland, of Usk, and partners, is situated at the head of Peerless creek, a tributary of the South fork of Kleanza creek coming in a short distance above the forks. The claims cover ground practically on the divide between Peerless creek and Salmon river, the latter stream being a tributary of the Zymoetz river. The elevations range from 3,500 to 4,800 feet.

There are two or three "veins" on this property which are of a similar type to the ore-zones on the *Wells* group, but differ somewhat in individual features. They belong, however, to the same general type of sheared or sheeted zones; in places definite sheeting with parallel ore-filled fractures occurs; in others the shearing movement has not left open spaces, but has produced crushed zones which allowed the circulation of solutions from which minerals have been deposited by replacement processes.

No. 1 vein is exposed in an open-cut on the Maple Leaf Creek slope at an elevation of 4,350 feet. The formation in which the veins occur is the prevailing andesitic type, but near by some well-banded flinty rock was noted which would seem to be a highly altered sediment; other rocks in this locality are apparently tuffs. This vein is about 8 feet wide and has distinct walls with some development of gouge. The vein-filling, however, is mainly wall-rock somewhat altered and changed from its original condition.

The ore-minerals occurring in the veing are bornite and chalcocite; chalcopyrite is nearly absent. A sample taken across 6 feet from the open-cut on this vein returned on assay: Gold, trace; silver, 0.2 oz.; copper, 1 per cent. Selected specimens can be obtained which will run high in copper content, but not much ore could be obtained by hand-sorting in this way.

Montana Group. This group, consisting of three claims, lies about a mile south-easterly from the *Wells* group, and is on the Copper River slope of Treasure mountain. The owners of the property are J. D. Wells, A. Hamblett, and Louis Edgar. The elevation of the *Montana* camp is 3,900 feet, while the showings are about 500 feet higher.

The ore-showing on this property occurs in a well-defined sheared or sheeted zone striking N. 50° E. (mag.) and standing vertically. The width of the zone is from 20 to 30 feet, but mineralization is irregular across this distance. From 8 to 10 feet (in width) of the ore-zone

is highly silicified, but the balance is rock which is not greatly different to the normal andesitic rock formation. The walls are fairly well defined and the silicified portion of the zone commences at one wall and extends inwards. Surface oxidation has taken place, giving a leached appearance to some of the zone and a plentiful distribution of copper carbonates. Development-work consists of an open-cut exposing a cross-section of the ore-zone. A sample cut across 20 feet, which is practically the whole width of possible ore in the cut, assayed: Gold, trace; silver, 1.9 oz.; copper, 1.1 per cent. Another sample across 8 feet, which represents the more highly mineralized and silicified portion of the ore-zone, returned: Gold, trace; silver, 2 oz.; copper, 2.5 per cent.

No. 2 vein outcrops up and down a sloping bluff for a distance of 300 to 400 feet. It is a mineralized zone 30 to 40 feet wide, but only across a width of a few feet is there sufficient mineral to be of importance; the most of the 30 feet is country-rock, with a few specks of mineral. In addition to bornite and chalcocite, some specular-iron ore was noted at this point.

Near the foot of the bluff a tunnel has been driven 50 feet on the strike of the ore-zone. It commenced with small stringers of ore, but at the face there is no mineral in the rock of appreciable importance. Above the tunnel fractures filled with chalcocite, bornite, and calcite are exposed which vary from 3 to 6 inches in width. Specimens taken from these narrow fractures would assay 20 to 40 per cent. copper, but such assays are misleading until the development shall have shown up a tonnage of this class of ore.

Crosscuts run to either side of the present tunnel would give a section of the zone, and would show whether or not any portion is so sufficiently mineralized as to constitute ore. The No. 3 vein on this group is similar to the others.

Below the tunnel a short distance there is a red rusty rock which is apparently a dyke of acid composition cutting the formations. This dyke carries a little iron, the oxidation of which on the surface gives the red coloration.

Kitsalas Mountain Copper Company.

Introductory.—The Kitsalas Mountain Copper Company is a company incorporated under British Columbia regulations for the purpose of operating the *Cordillera* group of mineral claims, situated near Usk, B.C. J. D. Wells and James Darby, of Usk, are the original owners of the property, and they took 50 per cent. of the stock in the company in payment for the claims. The company is capitalized at $500,000 in shares of $1 par value. Some of the stock has been bought locally, and a good deal in Portland, Oregon, the sale price being around 25 cents a share. With the money thus obtained from the sale of stock development of the property is now being proceeded with, and during the summer of 1917 four or five men were kept at work.

The property is situated a mile from Usk Station, and the main working is only 200 feet above the railway-track; the location is an ideal one, with abundance of timber available for mining operations. The present plan of development is the driving of a crosscut tunnel to tap the main vein exposed on the property. This tunnel is now in 135 feet, and will require to be driven at least as much more to reach the vein. A road from Usk Station which runs through the property was built by the Public Works Department during the summer; this road at this point will form part of the trunk road along the Skeena River valley.

Geological Features.—The rock formations exposed on this property cannot be definitely identified by an examination of hand specimens. There are a number of different rocks, most of which are in a highly altered condition, and which are apparently referable to the Kitsalas formation. Four specimens taken from the tunnel by J. D. Wells, and sent to the Geological Survey at Ottawa for identification, were named: "(1) A sediment; (2) a sediment; (3) diorite; (4) the weight of evidence indicates it to be a tuff."

It would seem that the rock formations in this locality consisted in the first place of interbedded sediments, tufaceous rocks, and basic volcanics, all of which have been profoundly metamorphosed. The resulting rocks may be classed as quartzites, tufaceous quartzites, argillites, tuffs, and chlorite, mica, and greenstone schists. The rock labelled "diorite" by the Survey is a very doubtful diorite. Its contact relations with the other rocks render it certain that it is not a true plutonic intrusive rock, nor yet a dyke, and hence the name "diorite" is inappropriate. It appears to be a rather coarsely crystalline and porphyritic volcanic rock, which might be called andesite porphyrite or diabase, intercalated with other flows and

sediments. Faulting of the measures has brought it into contact with a pronounced schistose rock of a basic nature.

Cutting these rocks are several roughly parallel but irregular quartz veins. These veins are undoubtedly of the fissure-filled type, but in places the fracturing of the strata has formed a sheared or sheeted zone instead of an open fissure. In other places "horse" material from the walls has in part filled the fissure, with quartz on the walls. Taken in all, though, the greater portions of the veins have been open fissures and the vein-filling is mainly quartz. Where the veins consist of sheeted zones some replacement of the wall-rock has taken place. A faint banded and ribbon structure occurs in places.

Although it cannot be entirely proved, it would seem that the first mineralizing action consisted of the circulation of solutions from which quartz, together with a little muscovite mica, were deposited. Later secondary action has altered some of the muscovite to chlorite. After the quartz-deposition the veins were subjected to a second fracturing, which did not produce any large open fissures, but made small fissures in the quartz. Along these secondary fractures copper minerals have been deposited from a secondary period of circulating mineral-laden solutions. The copper minerals deposited consist of bornite, chalcocite, and tetrahedrite, the last being in very minute quantities. These copper minerals are intimately associated and would seem to be primary in their origin. They fill fractures in the quartz up to an inch in width, and also in places the quartz has been replaced by them outside the fractures. Oxidation by surface waters has in places formed the copper carbonates, malachite, and azurite.

An interesting and commercially important occurrence in this ore is the presence of free gold in particles up to the size of a grain of wheat. This gold can be seen both in the quartz and *on* the bornite, in the latter form making very attractive specimens. From the evidence of assays it would seem as if this gold did not come in with the quartz-deposition, but later with the copper minerals; or possibly later still. Systematic sampling to determine this and other points has apparently not been done by the management.

The proportion of copper minerals to the quartz in the vein is quite variable and is always quite low. Where the main vein is a clean-cut fissure it is from 4 to 6 feet wide, but in places it consists of smaller bands of quartz irregularly scattered over a width of 20 to 30 feet. The copper minerals never form more than 5 to 10 per cent. of the vein-filling, and as a rule are so disseminated through the quartz as to make hand-sorting difficult.

Two small dykes are exposed which are cut by the main vein, which narrows where cutting through the dyke. These dykes consist of rocks of medium acidity, with well-developed needle-shaped phenocrysts of hornblende, which give a porphyritic structure to the rock. This dyke-rock may be classified as being of an andesitic type.

Description of Veins and Workings.—The main vein is the only one on which development-work to any extent has been done; it is exposed in a number of open-cuts and by stripping along the hillside for a distance of 300 to 400 feet, striking N. 15° E. (mag.) and dipping at from 30 to 45 degrees into the hill. This development shows the vein to have a width of at least 4 feet and often considerably more. In places it is irregular and consists of several bands of quartz from 6 to 12 inches wide, spaced across a width of 20 feet. While the average dip of the vein may prove to be about 45 degrees, in places it is almost flat. Some trouble may be expected in exploring this vein, on account of faults. Not much faulting of the vein is in evidence yet, but the topography of the country at least suggests that there has been some faulting in this locality.

An incline shaft has been sunk on this vein which has an average dip of 33 degrees, but near the bottom straightens up to about 45 degrees. The vein here is from 4 to 6 feet wide and the filling is roughly about 75 per cent. quartz, the balance being schistose rock-matter. Mineralization with copper minerals is continuous throughout the quartz, but somewhat irregular. The bottom of the incline could not be examined owing to water, but conditions are said to be identical with the rest of the working.

The crosscut tunnel has been started about 150 feet below the collar of the incline shaft. It is now in 135 feet and will require, depending on the dip of the vein, from 100 to 300 feet further driving to reach the vein. At a point 121 feet in the tunnel a small stringer of quartz was cut, the outcropping of which on the surface has not been discovered. This was drifted on for 22 feet to the south, and a winze was being sunk at that point, which at the time of

examination was only down 6 feet. In the winze the stringer had widened out to a vein about 3 feet wide, consisting of, roughly, one-third quartz and two-thirds schistose rock-matter. Bornite and chalcocite occur in sparing quantities, and specimens showing free gold are not infrequently seen. This vein occurs in schistose rock, but is cut off on the upper part of the tunnel, where the rock which has been called diorite comes in. There is apparently a fault contact between the schist and diorite and the vein is cut by the fault. Work is being continued in the winze and also in driving ahead the tunnel to strike the main vein.

No. 2 vein is exposed in an open-cut at an elevation of 725 feet. This vein is a clean-cut quartz vein about 3 feet wide, but is only mineralized very slightly with copper minerals.

No. 3 vein, which is exposed still higher up the hill, consists of several stringers of quartz which unite in places to form a 3-foot vein. Mineralization with copper minerals is very slight.

The No. 4 vein, which has been referred to as a "dyke," is a fracture-zone in blue quartzite, which is irregular, but in places has quite a development of quartz. Copper minerals only occur in traces.

These veins (2, 3, and 4) have not been developed and are not of importance at present. If the main vein should prove to be economically valuable, then these other veins would be worth prospecting to some extent. They can all be cut by a 700- to 1,000-foot tunnel.

Values.—The question of the value of the property and its chance of becoming a paying mine practically hinges upon the average values of the whole mass of the main vein. To arrive at this the only satisfactory method is to thoroughly sample the vein and prepare an assay plan, which, of course, would not be undertaken by a Government Engineer for obvious reasons. Mr. Wells and Mr. Thomson, manager, say that the vein will average $15 to the ton throughout, and, if so, it would pay nicely.

The commercial future of the property depends upon whether further development shows that the whole vein is sufficiently mineralized to be mined and treated at a profit by mechanical concentration. But in any case selective mining may enable the property to produce a small tonnage of shipping-ore.

The following samples were taken by the writer, which give some indication of the values:—

Across 4 feet at point 30 feet down incline: Gold, trace; silver, trace; copper, trace. Grab sample off dump representing about 10 per cent. of vein-filling: Gold, 0.25 oz.; silver, 2.8 oz.; copper, 4.5 per cent. White quartz selected from places where there were no copper minerals: Gold, trace; silver, trace; copper, trace. Selected solid copper ore: Gold, 0.30 oz.; silver, 20.5 oz.; copper, 65.16 per cent.

Conclusion.—This property can be classed as a prospect in the development stage, which has possibilities and may prove to be a profitable mining proposition. Its location so close to the railway-line, plentiful supply of timber and water-power, and generally ideal conditions for cheap and efficient working are factors which make it a reasonable venture to continue the development until the main vein has been explored on the crosscut tunnel level.

Legate Creek.

The 1916 Annual Report of the Minister of Mines contains a description by the writer of Legate creek and some of the mineral properties situated near the head of the creek. Several prospectors were at work on the creek during the summer developing their claims and examining the country.

M. & K.

This group was bonded from the owners, Whitmore & Orr, in the fall of 1916 by J. J. Price, who took out 130 tons of ore and shipped it in the early months of 1917. Later the bond was allowed to lapse. A description of the property will be found in the 1916 Annual Report.

The ore that was shipped was all float lying in the surface wash, and but little work was done by Price to find the vein from which this ore came. This float-ore occurred in pieces weighing up to several hundred pounds, and it does not seem likely that it has been moved any great distance from the vein in which it was formed.

During the summer considerable work was done by the owners in prospecting stringers and showings of ore close to where the float-ore had been taken out. Short tunnels have been run and cuts made and ore exposed, but it does not seem probable that the rich float-ore came from any of these showings.

The formation on this property consists of volcanic rocks, both acid and basic in type and somewhat altered. Porphyritic and brecciated phases are common. In the basic volcanics the hornblende is largely turned to chlorite.

The ore occurs in fracture-zones which are not sufficiently regular to be called true veins. The gangue is mainly wall-rock, together with a little quartz and calcite. The ore-minerals are galena, chalcopyrite, and specularite. The rich float-ore which was shipped consisted of an intimate fine-grained mixture of bornite and galena which was nearly solid mineral. In the ore-showings, occurring in the solid formation, which have been prospected very little of this type of ore has been found.

An open-cut and tunnel 10 feet long prospects a vein lying between walls of acid and basic volcanic rock, which is about 5 feet wide, with a streak of mineral on both walls. In places there is 6 to 8 inches of nearly clean chalcopyrite. The whole material taken out would assay 2 or 3 per cent. copper.

Another tunnel has been driven 60 feet on a parallel vein 50 feet to the east. This working shows the vein to be mineralized in a bunchy way with chalcopyrite and specularite, but very little galena. At the face of the tunnel there are two streaks of ore, each about a foot wide, that would probably assay 3 to 4 per cent. copper.

An open-cut above this, at an elevation of 4,800 feet, probably on the first vein, shows loose pieces of good ore lying in slide material and the bed-rock stained with copper carbonates.

This property is not yet sufficiently developed to tell much about how the ore occurs or the possibilities of finding fair-sized ore-bodies, but certainly the indications are such as to warrant thorough investigation by development. The clean ore is high grade, and the indications are that with development a fair tonnage of concentrating-ore may be found. The ore shipped returned about 25 per cent. lead, 20 per cent. copper, and 25 oz. silver to the ton.

M. & M. This group is owned by James Bell, Roy Moore, and Geo. McCarthy, and consists of three claims, situated on the mountain at the head of the forks of Legate creek. The formation here is granodiorite which is intrusive into the older volcanic rocks. On the *M. & M.* property a quartz vein, striking N. 48° W. (mag.) and dipping at 60 degrees to the south-west, outcrops for a considerable distance, lying wholly within the granodiorite. As a rule the vein is from 2 to 4 feet wide, with bands of quartz on both walls and a central portion of granodiorite. In places the vein is a solid quartz vein; in others it consists of parallel stringers and bands of quartz spaced across several feet, with rock-matter between. A little siderite occurs in places as a gangue-filling associated with the quartz.

The metallic minerals occurring in the quartz are galena, grey-copper, and occasionally a little zinc-blende. The metallic minerals, however, form a very small percentage of the total vein-filling. A selected sample of the best ore assayed: Gold, 0.02 oz.; silver, 83.2 oz.; copper, 1 per cent.

On the *Huron* claim the vein outcrops on a bluff several hundred feet away from the other showings. Here it is 16 feet wide, consisting of a band of quartz 2 feet wide on the foot-wall, and another on the hanging-wall 1 foot wide, with the central portion mainly granodiorite, with numerous narrow parallel stringers of quartz.

The mineralization with galena and grey-copper is again very slight. A sample across 1 foot on the hanging-wall side assayed: Gold, 0.02 oz.; silver, 25.2 oz. From another cut on the vein east of the bluff a sample was taken across 1 foot at a well-mineralized part of the vein which assayed: Gold, 0.26 oz.; silver, 199 oz. Another selected specimen returned: Gold, 0.06 oz.; silver, 360 oz.

The ore on this property carries good silver values, and further prospecting may reveal fair-sized shoots of this ore within the quartz vein.

Regina. This group, consisting of three claims and owned by Jones, Brown, Smith, Burns, and Jensen, is situated just above the forks of Legate creek, at an elevation of 4,200 feet. A cabin has been built at the forks, and from this a trail runs up the mountain to the claims.

This property has a well-defined quartz vein similar to the *M. & M.* and occurring in a granodiorite formation. It varies from 2 to 8 feet in width and consists of alternate bands of quartz and granodiorite. In places quartz fills almost the entire vein; in others the vein is a series of parallel stringers spaced across a width of 6 to 8 feet of granodiorite.

Mineralization is with grey-copper, a little galena, and occasionally a little chalcopyrite. The metallic minerals only occur in small amounts, but carry high values in silver. A selected specimen assayed: Gold, 0.06 oz.; silver, 386 oz.; copper, 13 per cent. An average sample across 1½ feet returned: Gold, 0.02 oz.; silver, 71 oz. A grab sample of a small dump from an open-cut assayed: Gold, 0.02 oz.; silver, 38.6 oz.; copper, 2.3 per cent.

Halliday. This property, which has been staked for several years, is situated at the head of the main fork of Legate creek. The showing is at the foot of and along a bluff which is practically surrounded above and below by glacial ice; to get there it is necessary to go over a glacier for about half a mile. The location is decidedly inaccessible and can only be reached at favourable seasons of the year.

The showing consists of a quartz vein lying in the contact between two highly altered rocks, apparently volcanics, one of which is green in colour and the other red. The vein, which is from 2 to 4 feet wide, is filled almost entirely with quartz, with but little inclusions of wall-rock. The metallic minerals, which occur in the quartz in sparing quantities, are galena, pyrite, and a little chalcopyrite. The vein crops out up and down the bluff for a few hundred feet.

The solid galena is said to carry good silver values, but the amount of clean galena in the vein is small. A sample taken across 2½ feet of the vein assayed: Gold, 0.12 oz.; silver, 10 oz.; copper, 0.5 per cent. A sample of clean quartz returned: Gold, trace; silver, 1.2 oz.

Fiddler Creek.

The *Fiddler* group, situated about four miles from Dorreen Station, was fully reported on by the writer in the 1916 Annual Report of the Minister of Mines. In the fall and winter of 1916 a wagon-road was built to the property, a temporary camp erected, and a crosscut tunnel commenced, which is expected to cut the vein and from which the mine would be developed; this tunnel was driven in 100 feet in slide-rock, clay, and gumbo, and for a few feet into solid rock, when operations were discontinued. The property is under bond from the owner to the Fiddler Creek Gold Mining Company, an Edmonton syndicate. It was expected that work would be resumed this summer, but this failed to materialize, and now nothing will be done until the summer of 1918. The property has undoubted merit, and it is probable that the cessation of development was due to financial reorganization of the company.

Hazelton Sub-district.

The Hazelton Sub-district includes the Rocher Déboulé range and Glen and Nine-mile mountains. This section is now quite well known through reports of the Geological Survey and the reports of the writer in the 1914 and 1916 Annual Reports of the Minister of Mines. For details of the early development of the various properties these reports should be consulted.

Rocher Deboule. This mine, situated on Rocher Déboulé mountain and distant about ten miles from Hazelton, is the most important productive mine in the district; it has been described at length in the Annual Reports of 1914, 1915, and 1916.

This year the low level, or 1,200-foot level, crosscut tunnel was completed to the point where it should have encountered the main vein, and was continued for some distance beyond, a total of over 3,000 feet. A fracture-zone was encountered which may or may not be the downward continuation of the main vein, but drifting on it to the east and west failed to reveal any ore. The management is apparently hopeful of still finding the main vein, and so a raise is to be put up from the 1,200-foot level to the 500-foot workings. This raise will be on the incline and will be a little over 900 feet in length. It will follow somewhat approximately the position wherein surveys indicate that the main vein should lie, and frequent crosscuts from it will be made. It is confidently expected that this work will reveal the whereabouts of the missing vein and the ore-shoots contained therein.

The 1,200-foot level has, however, proved very successful in developing other veins on the property. One of these, the No. 2 vein, gives promise of being quite as commercially important as the main vein. All the ore shipped from the mine in the last six months of the year came from this vein. In addition to the good shoots of shipping-ore exposed in this vein, a tonnage of concentrating-ore has been opened up which is nearly sufficient to warrant the installation of a small mill. The grade of shipping-ore from this No. 2 vein is the best that has been sent out from the mine, much of it averaging $5 in gold and 10 oz. silver to the ton, with 10 per cent. copper.

The No. 3 vein as exposed in the main tunnel also shows promise of becoming productive, but development of it has not yet been carried very far. Generally, conditions at this mine are quite satisfactory and a considerable productive period seems reasonably assured.

The tonnage of ore shipped during 1917 was considerably less than in the previous year. Most of the 1917 production was made in the last six months of the year, when steady shipments were made, mining in the first six months being mainly confined to development.

Delta Copper Co.

This company, which owns or controls the *Delta*, *Highland Boy*, and other groups of claims lying to the east of the *Rocher Déboulé* mine, has not been able to do very much this season. Some favourable showings on the upper vein on the *Delta* group were exposed by means of surface cuts, but no other development of importance was carried out. The property of the company is situated in a somewhat inaccessible place, with the result that transportation arrangements are difficult. A wagon-road was completed this year from the *Rocher Déboulé* main camp in Juniper creek to the terminal of the *Highland Boy* 2-bucket tram, and over this road ore will be hauled this winter.

In the *Highland Boy* workings from 1,000 to 1,500 tons of shipping-ore is blocked out, and further development may be expected to show much more ore. There are two main veins, known as the "Upper" and "Lower" veins, which are exposed on the surface for some distance and partially developed; both of these veins have indications of being of considerable value.

In general, it may be said that the property of the Delta Copper Company gives promise of becoming a productive mine if sufficient capital is forthcoming to carry out the necessary development.

Through the courtesy of Harrison Clement, manager, the writer was given a copy of the report presented to the annual meeting of the directors of the company, and from this the following extracts have been taken:—

"Work was begun on December 26th, 1916, and sleigh-roads constructed to the selected site of the Delta camp, a portion of the *Joe Fraction* claim of the Rocher Déboulé Copper Company having been leased as camp-site. A camp was built consisting of boarding-house, office and warehouse, two bunk-houses, stables, power-house, and blacksmith-shop. This camp will serve all operations from the west end of the property, the permanent development being from that end. A complete mechanical plant for development and mining was purchased at exceptionally good prices, consisting of a 65-horse-power distillate engine, 12 x 12 air-compressor, gasolene-hoist for surface tramway, drill-sharpener, engine and fan for ventilation of west end workings, air-power drills, and complete equipment of small tools. This equipment is completely installed and ready to operate. A 2,000-foot aerial 2-bucket tramway has been installed and put in operation on the east end from the *Highland Boy* camp to the bottom of the gulch; 1,200 feet of the 3,000-foot surface incline tram has been constructed to serve the west end workings, the lower terminal being at the power-house, rail and other material for the balance, 1,800 feet, being at camp; 1,200 feet of 4-inch air-pipe line from the power-house toward the *Delta* tunnel has been put in; and 1,800 feet more of 4-inch pipe is on hand, with two large air-receivers for the line, one being installed. To complete the mechanical equipment a small amount of pipe is necessary and the completion of the tram and pipe-line. A wagon-road has been graded from the *Rocher Déboulé* road to the camp, and from this, with the assistance of the British Columbia Department of Roads, a good wagon-road has been constructed to the foot of the aerial tram on the east end, these roads giving outlet to both ends of the property. A considerable portion of the main *Rocher Déboulé* road to Skeena Crossing was relocated and graded by the British Columbia Government during the summer.

"One thousand five hundred logs were cut and hauled from the *Gold Prince* claim, which was acquired by the Butte and Rocher Déboulé Copper Company and added to the *Highland Boy* claims for construction purposes and firewood.

"There has been done a considerable amount of prospecting, development, and mining work during the year, although curtailed to a considerable extent by difficulties of financing encountered by all enterprises during the period. On both the upper and lower veins on the south portion of the property several surface cuts have been put in, all showing a strong vein, although several were not carried deep enough to get below surface alteration. An excellent showing was opened up on the lower vein on the *Highland Boy* claims, exposing nearly 2 feet of ore in a vein

principally oxidized and leached out and about 12 feet wide. Several other shallow cuts were put in on this vein, but not deep enough to disclose unaltered ore.

"On the *Delta Fraction* claim, on the upper vein, the best surface showing on the entire property, and with one remarkable exception probably the best opened up in the district, was prospected by three open-cuts and some surface stripping, indicating an ore-shoot practically continuous for nearly 200 feet, ranging in width from 1 to over 6 feet at this depth, the main portion being defined by the three open-cuts. Considerable portions of this shoot have been oxidized, but widths up to 18 inches are practically unaltered, a sample assaying 20 per cent. copper. In the main cut a sample over 6 feet assayed 6 per cent. copper, large portions being leached material. This shoot will be developed at a depth of 575 feet by the *Delta* tunnel, and a very valuable and extensive ore-body is indicated.

"Development-work was prosecuted on the east end from the *Highland Boy* upper tunnel, a total of 265½ feet of drift, raise, and winze being driven after January 1st, 1917, when the work was taken over from the *Highland Boy* company, at an average cost, including all direct and overhead expense, of $18.20 a foot. This work has developed about 1,500 tons of ore that will ship on present copper prices close to $45 a ton. Incidental to development there were extracted from the two shoots and shipped to the Ladysmith smelter 74.92 dry tons of ore, containing 10,494 lb. copper, 4 oz. gold, and 35 oz. silver. The last shipment, representative of the ore blocked out, assayed 8.87 per cent. copper, 5 oz. silver, and 0.05 oz. gold. The net profit on ore smelted was used to partly defray the cost of development at this end. This work was discontinued in May until wagon-roads could be completed, and nothing further has been done on this end of the property. The ore blocked out is a considerable asset and can be mined and transported from this end, or held until reached by permanent development from the west end.

"On the west end the *Delta* tunnel has been driven 202 feet, crosscutting toward the vein, at an average cost of $20.41 a foot, 173 feet having been driven under contract. About 450 feet of crosscutting and drifting will bring us under the west end of the ore-shoot on the *Delta Fraction* claim, mentioned above, and it is probable that ore will be encountered sooner, as the well-mineralized vein dips under slide-rock with undiminished width.

"Assessment-work has been recorded on all claims, except on a portion of the north end of the property, where the desirable ground was better covered by a less number of newly located claims. The *Delta* group of five claims, the three claims of the *Cræsus* group, five claims of the *Chicago* group, and the *Drake*, *Duke*, *Dyke No. 2*, and *Dyke No. 3* claims have been surveyed. The five claims of the *Chicago* group are being advertised for Crown-granting, and eight claims of the *Highland Boy* group and three of the *Delta* group have sufficient work recorded to Crown-grant. All the claims of the company are in good standing.

"Your property is now well equipped for development and mining, and a comparatively small expenditure should open up the ore-shoot prospected on the *Delta Fraction* claim, and, if deemed advisable, to mine and ship the ore developed on the east end. The work done has proven the good opinion of those interested in the formation of the Delta company to have been fully justified, and with funds available for further development the property can be rapidly placed on a producing basis and able to carry on further development and make additions to equipment as may be necessary. At this stage I can state that I know of no property in the district that has larger possibilities, and its future productiveness seems assured, and that in the immediate future."

New Hazelton Gold-Cobalt Co.

This property was reported on by the writer in the 1916 Annual Report of the Minister of Mines, so that all that need be noted here is the development during 1917. Since acquiring the claims in 1916 the company has carried on steady development with a force of from five to ten men. Until the summer of 1917 Duke Harris was in charge of the work, but at the present time Dalby Morkill is superintendent. In December a bad accident occurred; a snowslide came down as the men were going up the trail leading from the camp to the tunnel-workings, and two men were killed and two severely injured.

At the time of examining the property in July a drift-tunnel on the vein had been driven 653 feet, which gave a depth of 650 feet on the vein. Since that time this tunnel has been driven farther, some raises have been put up, a winze sunk, and stopes from the tunnel-level upwards commenced. Throughout the tunnel the vein is continuous, averaging possibly 2 feet in width, and being as a rule well defined between walls of granodiorite.

Ore-shoots, Nature of Ore, etc.—The vein is filled with hornblende, quartz, and altered wall-rock, and in places with metallic sulphides; of these latter arsenopyrite is the most abundant, although in places a considerable amount of molybdenite occurs. In association with the arsenopyrite are found small quantities of pyrrhotite and pyrite.

Analyses of the ore show varying percentages of cobalt up to about 4 per cent. The higher percentages as a rule are from specimens in which there is a high percentage of arsenopyrite, and it is apparent that the cobalt occurs in association with the arsenopyrite. The isomorphous replacement of the iron in arsenopyrite by cobalt is not uncommon, and where the cobalt percentage is low the resulting mineral does not differ to the eye from ordinary arsenopyrite. Where the cobalt percentage in arsenopyrite ranges from 4 to 10 per cent. the name "danaite" for the mineral has been proposed, but is not in common usage. By oxidation the cobalt in the arsenopyrite is converted to erythrite (cobalt bloom), which is very easily identified by its characteristic pink colour. This bloom is plentiful on the surface outcrops of the vein. As is usual in this district, the vein at the surface, in most places, is considerably oxidized and leached out, and consists of rusty-coloured iron oxide and rotten rock-matter.

From the commencement of the tunnel to a point 85 feet in there is a shoot of ore varying from 3 to 14 inches in width. This ore is mainly arsenopyrite which will assay from $50 to $100 a ton in gold. From the end of this ore-shoot to a point 470 feet in the tunnel no further ore-shoots of much importance have been found, although small bunches of mineral occur.

At a point 200 feet from the portal a fault cuts the vein, but only causes a small displacement of a few feet to the south. The rather curious phenomenon of an open fissure was encountered in drifting along the tunnel. About 110 feet from the portal the vein became an open fissure which continued for 40 feet. This was simply the vein-fracture without any vein-filling in it; a part of the vein in which nature's processes were not completed. The open fissure varied from a narrow crack up to 4 feet, averaging about 2 feet, practically the same width as the normal vein. This fissure extended upwards nearly to the surface and downward for a considerable distance, at least 100 feet.

Beyond the fault the molybdenite content of the vein increased in amount, but very little arsenopyrite occurs as far as the face of the tunnel, which at the time of examination was in 653 feet. The molybdenite to some extent occurs in shoots, although these are not very well defined. Some of this molybdenite ore was mined during the summer, and from this by hand-sorting a car-load was produced which is expected to assay from 6 to 10 per cent. molybdenite (MoS_2). In November this shipment was packed from the mine down to Carnaby on the railway, but so far as is known it has not yet been shipped to Ottawa or elsewhere for treatment. This ore will also carry some gold, probably, however, not high values. Another car-load of this ore is ready at the mine for shipment. During the winter it was intended to stope some of the arsenical-gold ore from the shoot at the portal of the tunnel, which is expected to yield a few car-loads of good-grade ore.

American Boy.

Six claims constitute the *American Boy* group, which is owned by the Harris Mines, Limited, the control of which company is held by the Harris Bros. The property was operated in 1912 and 1913, when about 100 tons of hand-sorted ore was shipped, the smelter returns from which were about $7,000. The writer made an examination of this property in 1914, the report thereupon appearing in the Annual Report of the Minister of Mines for that year. This report contains a description of the location of the property, workings, vein system, and general remarks on the size, values, and character of the ore-bodies, so that there is no need for repetition in this report.

Very little work was done on the mine in 1914, but in 1915 the main shaft was sunk 90 feet deeper, but no ore shipments were made. Since that time the property has been idle until November of this year, mainly for the reason that the company had no funds to continue operation and development. The chief disability under which the property suffered was that to operate at a profit the ore has to be milled. And the present development has not shown up a sufficient tonnage of milling-ore to warrant the expenditure of erecting a concentrator. The property has been examined by many engineers, but for one reason or another never proved sufficiently attractive to cause them to recommend purchase by their principals.

The erection of the concentrator for the *Silver Standard* has to some extent solved the problem for this company. An arrangement has been entered into with the Silver Standard Company to mill the *American Boy* ore to the extent of about 200 to 300 tons a month. Work

has been commenced, and in the first place about 300 tons of milling-ore on the dumps is being hauled to the mill. The property is sufficiently developed to allow of stoping at least 1,000 tons more of ore of a milling grade. Provided the returns on this are as good as expected, the company will realize sufficient funds to continue the shaft to the 300-foot level and open up another level with 100 feet of backs for stoping. It is hoped that in this way the company will be able to pay its way and finance the further development of the mine.

Geological Features and Vein System.—This south-western slope of Nine-mile mountain on which the *American Boy* is situated consists mainly of sedimentary rocks of the Hazelton formation; sandstones, quartzites, and argillites are the common rocks, with locally on this property argillite predominating. This argillite as exposed in the workings of the main vein is a blackish rock, soft as a rule and often blocky. At least two, and possibly more, dykes of an acid type, and provisionally named quartz porphyry, occur cutting the sediments. Since the surface is heavily covered with wash but little information on the relation of these dykes to the veins is obtainable from the surface outcrops. In the main vein workings one of these dykes is exposed and some knowledge of the relations has been obtained. The dyke occurs on the hanging-wall at the mouth of the shaft and down the shaft for some distance. It occurs on the foot and hanging walls, but faulted apart, on the 100-foot and intermediate stopes below, but only occurs on the foot-wall on the 185-foot level. This dyke varies from 12 to 16 feet wide and its strike makes an angle with the strike of the vein of 30 degrees. It is evident that the dyke cuts the sediments, and also that it was injected prior to the formation of the vein, as the latter cuts the dyke. The faulted relation of the dyke with the vein, occurring on the foot-wall and again from 15 to 30 feet along the vein on the hanging-wall, makes it certain that a faulting movement along the strike of the vein took place. Possibly the earth-movement which produced the vein-fissure was accompanied by a lateral movement of the rock on one side of the fissure, thus faulting the dyke.

The relations are complicated by another fault, which had a nearly horizontal movement and which offsets the vein along its strike by about 15 feet; this fault occurs in the portion of vein lying between the faulted ends of the dyke on foot and hanging walls.

It has been noted that rich ore occurs in the main vein close to where the dyke is cut by the vein. From this it has been inferred that the dyke had played an important part in the mineralization of the vein. It is, however, not at all plain how this could be, as it is certain that the dyke was there long before the vein was formed. The only action that the dyke could have had in the mineralization was that it formed a more suitable wall-rock than the argillite for precipitating minerals from solution. The writer is of the opinion that the rich ore near the dyke is only incidental and not directly attributable to the influence of the dyke. Rich portions of the ore-body are found in the vein at considerable distances from the dyke, and in some instances the vein near the dyke is not particularly well mineralized.

This point is of importance, as if the vein only carries pay values in the vicinity of the dyke, then the amount of ore to be expected from the development of the property is relatively quite small; whereas if the vein is mineralized without reference to the dyke (as the writer believes to be the case), then a more promising future is in store for the mine. It may be noted here that none of the other veins on the property are contacted by any dykes. These veins are to some extent mineralized, but are not as promising as the main vein.

There are three well-defined veins on the property and others which may be extensions or offshoots from these. They are good examples of the fissure-vein type with a gangue-filling of quartz. The metallic minerals present in their respective order of abundance are galena, zinc-blende, arsenopyrite, tetrahedrite, pyrite, and chalcopyrite. The galena carries from 1 to 3 oz. of silver to the unit of lead, while the tetrahedrite is as a rule very rich in silver; one sample of pure mineral returned 1,677 oz. silver to the ton. (Summary Report, Geological Survey, 1912, page 102.) The zinc carries practically no silver, but owing to the dissemination of fine grains of tetrahedrite through the zinc, assays running well in silver are often obtained from the zinc-blende.

The arsenopyrite carries from $6 to $12 a ton in gold, but is not present in sufficient amount to be of material importance. Ore shipments from the property generally run $2 or $3 a ton in gold. The chalcopyrite does not occur in sufficient quantity to be of any economic importance. All ore shipped so far has been sent to Trail, the lead and silver being paid for and a penalty

paid on the zinc content, which varies from 10 to 18 per cent. It may be expected that milling the ore will produce both a lead and zinc concentrate; the latter will contain a certain amount of silver, due to the inclusion of some grey-copper.

The minerals in the veins are to some extent arranged in a banded structure, but not very continuously. There is nothing in these veins to suggest that they were formed by two successive fracturings and mineralizations as with the *Silver Standard* veins. The two sets of veins do not resemble one another to any great extent, other than that they are of the same type and similarly mineralized.

Some calcite and siderite, but in very small amounts, were noticed in the No. 3 vein.

The workings on this property were described in the 1914 Report, and since that time the only further work done has been the sinking of the shaft on the No. 3 vein from the 185-foot level to 270 feet. The shaft follows the vein on an average incline of 70 degrees to the 185-foot level. Shortly below this the vein flattens somewhat and the shaft continues down in the foot-wall. It is intended to continue the shaft to a depth of 300 feet and then crosscut to the vein and drift on it. The shaft was sunk to 185 feet by a horse-whim for hoisting, but for the further sinking a 6-horse-power distillate-driven Fairbanks-Morse engine and hoist was put in position. This worked satisfactorily and with it the shaft could be easily sunk to a depth of 500 to 600 feet. No additional equipment has been added to the property lately, but none is required as there is a good camp with all the usual equipment, tools, etc.

Higgin's Property.

This property is situated in the Babine range, about thirty-one miles from Hazelton, and is reached by the old Babine pack-trail. It is owned by Fred Higgin and is now under option to the Exploration Department of the Goldfields Consolidated Company, with J. B. Rowley in charge. Work was commenced in September, a camp erected, and a crew of six to eight men will be kept at work all winter.

The showings consist of several quartz veins varying in width from a few inches to several feet, which are exposed on the surface for considerable distances. Galena, zinc-blende, and grey-copper form the ore, and high silver values are associated with the grey-copper. The property apparently has promise, but is as yet undeveloped; but a winter's work will probably prove the veins to some extent.

Silver Standard.

The steady progress of this mine during the last two years, under the superintendency of W. G. Norrie, has been most gratifying. The crosscut tunnel started last year to tap the 250-foot level of the main shaft has been completed, and much other development and general betterments to the property have been accomplished. The crosscut tunnel cut several veins before reaching the main shaft veins, and some of these give promise of being of considerable economic importance. The No. 4 vein especially is showing up well and contains some good shoots of high-grade ore.

In the fall of the year the conclusion was reached by the management that the mine had reached a stage of development which made it advisable to erect a concentrator to treat the milling-ore already blocked out in the mine. After some experimenting and consideration it was decided to erect a 50-ton plant on Two-mile creek about three miles from the mine. The Faust system is to be used, which is, in principle, a water-concentrator with some special features in the crushing-rolls, tables, etc. The plant will be run by steam-power, with cordwood as fuel; mill-water will be secured from Two-mile creek. The ore will be delivered at the mill by means of a 3-ton auto-truck, the road being sufficiently good for this means of transportation. Erection of buildings and installation of plant is being rapidly proceeded with, and it is expected that the mill will be in operation in March.

When the crosscut tunnel was completed the power-plant arrangements at the mine were changed. The old steam plant at the shaft was dismantled and taken away. A 75-horse-power distillate-engine and 6-drill compressor were installed at the tunnel. Blacksmith-shop, warehouse, power-house, ore-bins, etc., have been erected and new buildings put up at the main camp as well as at the new camp at the mill-site.

Mining operations were suspended during the last half of the year on account of the construction-work and various rearrangements. The only ore shipments made during this period were from the leasers who were at work hand-sorting old dumps. The production, however, for the year was approximately the same as in 1916, and will be greatly increased in 1918.

This property has been repeatedly described in the Annual Reports of the Department from 1911 onwards, so that for details of geology, earlier development, etc., these reports should be consulted.

Surprise. This group, consisting of four claims, adjoins the *Silver Standard* to the north. In the fall of 1917 the property was purchased from the original owner, Wm. Thompson, by B. R. Jones, and it is believed development will be carried on in the summer of 1917.

The property has three or four small quartz veins outcropping on it which are believed to be extensions of the *Silver Standard* veins. Some years ago these veins were prospected on the surface slightly, and in 1912 a crosscut tunnel, which is 770 feet in length, was driven to cut the veins.

The first vein was cut in the tunnel at a distance of 200 feet from the portal. It was drifted on and a raise put up to the surface. The next vein was cut at 430 feet and at the face a small stringer is showing.

These veins where developed are only a few inches in width and carry small amounts of galena, zinc-blende, tetrahedrite, and arsenical iron; the mineralization is identical with that of the *Silver Standard*.

No ore-shoots of commercial size have been so far found in the veins on this property, but further development may show that they contain valuable shoots, as in the *Silver Standard*.

The second vein cut in the tunnel is apparently the No. 4 vein of the *Silver Standard*, which carries good ore close to the *Surprise* line. Drifting southerly on this vein from the tunnel-level is expected to be done this summer and may be successful in finding good ore.

The further development of the veins on this property is a speculation, but the fact that the veins are probably extensions of the *Silver Standard* veins makes the proposition attractive.

Nine-mile Mountain. None of the properties on Nine-mile mountain were worked to any appreciable extent during the year. The *Barber Bill* group was bonded to Mr. Carleton, but the bond was relinquished within a few weeks. The *Sunrise* group has a good showing of silver-lead ore and is well worth further development, but the property has remained idle for two or three years, apparently from lack of funds.

Cap. This group of claims, situated near the foot of Rocher Déboulé mountain and a mile from Carnaby Station, was described in the 1914 Annual Report. During 1917 further work was carried out by the owners, Comeau & Johnson, and 29 tons of ore was shipped. The development now is being concentrated on the driving of a long tunnel to get under the ore-shoots showing in the shaft-workings above.

Golden Wonder Group. This property is situated about one mile from Carnaby Station and only slightly higher in elevation. It is practically in the valley of the Skeena river at the foot of Rocher Déboulé mountain. The claims were owned by Harris & Comeau, but are now under option to M. W. Sutherland, who has associated with him J. B. Tyrrell, of Toronto. Previous to being taken over by Sutherland the development consisted of a 20-foot shaft and some surface cuts. The present owners worked the property more or less steadily during 1917 with from two to five men.

The geological formation in this section consists of a sedimentary horizon of the Hazelton formation, the rocks exposed being generally quartzitic or argillaceous. There are two or three veins on the property with a general strike of S. 65° W. and standing nearly vertical. These veins are similar in appearance to the typical *Rocher Déboulé* veins and are mineralized in much the same way; they differ from the *Rocher Déboulé* veins, however, in that they occur in sedimentary rock and not in granodiorite.

The gangue-filling is partly the ordinary wall-rock, but in places there is a considerable development of quartz and also a little siderite and hornblende. Pyrrhotite, arsenopyrite, pyrite, and chalcopyrite are the metallic minerals present. The order of deposition of the various minerals would appear to have been, first, siderite, quartz, and hornblende, then pyrrhotite a little later, and finally arsenopyrite, pyrite, and chalcopyrite, together with a little more quartz last of all. Hornblende in radiating and needle-shaped crystals is fairly plentiful in the gangue. This occurrence of hornblende is similar to the hornblende in the gangue of the *Rocher Déboulé* veins, but occurs in much smaller amount. The usual oxidation on the surface is apparent, but does not extend below a foot or two.

The vein to which Sutherland has confined his attention was not prospected by the original owners. It averages about 4 feet in width, but is not in all places well defined. At the end of July a shaft had been sunk on this vein to a depth of 20 feet. The bottom of the shaft was practically all in ore, possibly assaying 4 to 6 per cent. copper. From the material taken out of the shaft about 15 to 20 tons was put to one side as ore, which will assay from 4 to 6 per cent. copper. Shortly after this a contract was let for sinking the shaft 100 feet. By November this shaft was down 50 feet, when on account of bad weather and excess of surface water the work was stopped for a time. It is not known whether the work has been restarted yet, but in any case it will be in the spring. While the contractors were at work on this vein Sutherland was prospecting another outcropping of ore, presumably another vein. Some encouragement in the shape of good ore was found here and further development will probably be undertaken.

The original owners had prospected a vein on the property by means of a 20-foot shaft. There is a considerable development of pyrrhotite in this vein, but not very much chalcopyrite. This pyrrhotite carries some gold value which is apparently quite variable, making it difficult to arrive at an average. Mr. Sutherland considers from assays he has made that in any case the average gold content would be low, not to exceed $2 to $4 a ton.

The *Golden Wonder* group is as yet only a prospect, but the outlook for the future is encouraging. The similarity of the veins and mineralization to those of the *Rocher Déboulé* mine make it a reasonable speculation to suppose that commercially valuable shoots of ore will be found by development.

TELKWA SUB-DISTRICT.

The town of Telkwa, situated on the Grand Trunk Pacific Railway at the confluence of the Bulkley and Telkwa rivers, is the central point for a number of mining camps, none of which, however, is as yet much beyond the prospecting and developing stage. The different claims are at some distance from Telkwa, but this town is the outfitting-point for prospectors and those properties which are being developed.

The principal sections tributary to Telkwa are the Babine range and the territory drained by the Telkwa river. Transportation into these two areas was much improved in 1917 by the building of two roads; the sleigh-road to the property of the Babine-Bonanza Mining and Milling Company gives access to a portion of the Babine range in which many mineral locations are held, and the improvements to the *Santa Maria* road provide mineral claims along the Telkwa river and the South fork with wagon-road transportation.

Babine-Bonanza Mining and Milling Company.

Introductory.—The property owned by the Babine-Bonanza Mining and Milling Company is situated in the Babine range three miles to the east of the divide at the head of Driftwood creek. James Cronin is the largest stockholder in the company, and has been in charge of all work since the property was acquired in 1909.

Until the completion of the sleigh-road in the fall of 1917 the mine was reached by a sixteen-mile trail from the end of the wagon-road on Driftwood creek. This trail goes up the creek over the divide—elevation 6,000 feet—and down to the mine, 700 feet lower, which is just barely above timber-line. By this route the mine is distant about twenty-five miles from Smithers and twenty-eight miles from Telkwa. Another route into the mine is by trail from Moricetown, about thirty-five miles long, but this has not been used for some time and is now impassable for horses at the upper end. Another trail was used for a time coming in by Canyon creek, but this is also out of commission. In 1916 a wagon-road was cruised out and partially slashed by the Public Works Department, the work being under the supervision of P. Jens. This route, starting at the mine, goes down Cronin creek three miles and a half in a south-easterly direction (towards Babine lake), then swings southerly and westerly and comes out through a low pass in the Babine range lying between Deep and Canyon creeks, and thence into Telkwa, a total distance of about thirty miles. In 1917 this road was completed from Telkwa to the mine as a sleigh-road, the work being carried out under the supervision of A. L. Carruthers, District Public Works Engineer. Three miles and a half from the mine out was constructed by the mining company.

The writer reported on this property in 1914 and again in 1916, the reports appearing in the Annual Report of the Minister of Mines for 1914, and Bulletin No. 2, 1917, of the Mines Department. These reports should be consulted for details in regard to the earlier developments of the property, as this report gives only a brief summary.

Since 1909 development of the mine has been carried on fairly continuously, some work being done each summer, and during several winters a small crew of men was kept at work. To date about $60,000 has been expended on the property. All work has been by hand, there being no machinery on the property. The work has been expensive owing to the cost of taking in supplies, but, considering this fact, a lot of development has been done for the money spent. The total footage of shafts and tunnels amounts to about 2,500 feet.

The mine is equipped with cook-house, bunk-house, office building, blacksmith-shop, etc. A site for a concentrator down Cronin creek below the mine has been selected by Mr. Cronin. Water-power to run the mill is available from Cronin creek. Timber is plentiful, and now that the mine is equipped with a sleigh-road, working conditions are not unfavourable. For further development machinery is not absolutely essential, but would be desirable. Water-power for driving a compressor is also available, although an auxiliary steam plant might be required in the winter.

Ore-bodies and Development.—The ore-bodies exposed on this property are of two types, viz.: (1) Fissure-veins in rhyolite; and (2) contact replacement bodies lying between rhyolite and schistose argillite. In both of these types of ore-bodies galena carrying good silver values is the most important ore-mineral, but in places a considerable amount of zinc-blende occurs. Small amounts of grey-copper, chalcopyrite, and pyrite are sometimes seen, but they are unimportant. In the veins shoots of nearly solid galena and zinc-blende occur, but in the contact deposits the ore-minerals are disseminated through the gangue and comparatively little clean ore could be extracted. These deposits will probably, however, prove to be the more important by providing sufficient tonnage to warrant the erection of a concentrating-mill. The gangue consists of quartz and altered wall-rock.

There are at least four veins exposed on the property, and on three of these development-work has been done. The first vein was developed several years ago by a drift-tunnel (referred to as tunnel No. 1) 450 feet in length. This shows some small shoots of ore, but at the face the vein has faded away into stringers. Some ore could be stoped out here, but no very large tonnage of clean ore can be expected.

Two hundred and thirty-five feet above this tunnel two veins are exposed on the surface, one of which may be the same vein as in No. 1 tunnel. Incline shafts have been sunk on these to a depth of about 80 feet. The veins as exposed in these shafts are from 2 to 5 feet wide and carry a considerable amount of solid ore. A good deal of ore has been taken out in sinking these shafts and from open-cuts near by. These showings are promising, and it is quite reasonable to suppose that a fair tonnage of ore could be stoped out from these workings.

Another vein is exposed on the eastern side of the hill on the face of a bluff. No work has been done here, but the showing is promising, consisting of a vein 4 feet wide, with bands of solid galena up to 2 feet in width.

Another small vein is exposed in an open-cut, but it is too small to be of much importance, although in places it is mineralized with galena.

The development-work so far done on the veins shows that there is probably a few hundred tons of high-grade silver-lead ore which can be classified as "reasonably assured," although not "blocked out."

The contact ore-bodies are represented by one on which a good deal of development-work has been done, and another on the *Homestake* claim, on which but little work is done. The main contact ore-body has proved so far to be very irregular and puzzling in its underground developments. In the last three years most of the work on the property has been directed to determining the strike, dip, and general character of this ore-body.

It is exposed on the sloping side of the hill just up from the camp, and it would appear as if the schistose rock had been removed by erosion and left the ore exposed lying on top of the rhyolite. Mr. Cronin considers that this is the end of the ore-body in this direction; that is, erosion has removed it near surface, and if continuous to the north it is covered by wash in the creek. More work is necessary to determine this.

To the south the ore-body is exposed along its strike and partly on its dip by erosion for a short distance; then it is covered by talus material, but it is presumably the same ore-body exposed in the Wardell shafts, which are down 70 to 80 feet on the contact. The *Homestake* ore-body is a similar contact deposit, and it is probable that it is the southern continuation of the main contact ore-body.

Tunnel No. 1, the first working on the property, was a drift run to prospect the No. 1 vein. Tunnel A was run to prospect the contact ore-body, which it did by crosscutting obliquely through 25 feet of ore of milling grade. Crosscuts were then run from tunnel No. 1 (which is 100 feet lower than tunnel A) to pick up the downward extension of the ore-body. Although considerable exploring was done on the No. 1 tunnel level and several contacts of schist and rhyolite were crosscut, no appreciable ore-body was found.

Tunnel B, distant 60 feet from tunnel A and 30 feet lower in elevation, was then driven, which runs nearly on the strike of the contact ore-body and shows good ore throughout.

An incline raise was put through for ventilation from one of the workings in No. 1 tunnel up to No. B tunnel, which is 90 feet in length. Thirty feet above No. 1 tunnel level this raise broke into good ore, continuing up to No. B tunnel level. At the foot of this raise a drift extends to the north-east for 80 feet, and a crosscut from the end of this going 3 feet to the north-west broke into 4 feet of milling-ore. Work is being continued here in order to prove continuity of the ore between tunnel B, the 90-foot raise, and this drift.

The schist-contact lies 90 feet west of the ore exposed in this drift, and at first it seems unlikely that this ore is part of the contact ore-body exposed in No. A tunnel and on the surface. It is quite possible, though, that the contact ore-body only follows the contact in places, and this would account for some of the disappointments on the No. 1 tunnel level, where the schist-contact was reached and no ore found. It is also certain that this ore-body is quite irregular and bunchy, and that it cannot be assumed to be anywhere until blocked out on all sides.

Since the property was examined in July tunnel C has been extended to cut the contact ore-body, and there is now a good showing of milling-ore in this tunnel. This working is on the same level as tunnel No. 1, and so, having now found the ore on this level, its continuation to the south will be found by further development.

After crosscutting the contact ore-body tunnel A was continued for 173 feet into the foot-wall until the No. 2 shaft vein was struck. The vein here carries but little ore, and on drifting 20 feet to the east the vein was cut off by a fault. A raise is to be put up from this level to the bottom of the shaft, 50 feet above.

Summary of Ore proved.—The present stage of development on the different ore-bodies does not allow of any estimate of proven ore tonnage. In tunnel A, tunnel B, and the 90-foot raise the showings of milling-ore would indicate a considerable tonnage of "probable ore," but a good deal more development is necessary before any figures of tonnage could be attempted. In addition to milling-ore there are exposed in this ore-body several bands of clean ore which could be stoped out and shipped with a little hand-sorting. Mr. Cronin considers that he has practically enough milling-ore "in sight" to warrant the erection of a small concentrator. If further development should prove more continuity in the ore-exposures, then another lower tunnel can be put in to gain at least 100 feet more depth. The ground at the present level is considerably twisted, folded, and somewhat faulted, and Mr. Cronin has a strong conviction that at greater depth the ore-bodies will be more regular and continuous.

On the *Homestake* claim an ore-body is exposed which is vein-like in form, but lies practically on a contact between the schist and the rhyolite. It is developed by a 25-foot shaft and a 100-foot tunnel tapping the bottom of the shaft. This ore-body is more irregular and bunchy than any of the others. It is evident from the dump that a lot of ore has been taken out, but it is hard to see in the workings where the ore came from. The ore is broken in places by small faults and is very much twisted. By exploring the contact thoroughly and following up the streaks of ore showing in the workings a good ore-body may be found. This ore runs well in silver, assaying at least 2 oz. silver to the unit of lead. The showing is promising and warrants further development.

Values in the Ore.—The main valuable mineral in the ore is galena, although zinc-blende is also present in considerable quantity. The solid or closely hand-sorted galena will carry from 60 to 80 per cent. lead. The silver in the ore is apparently carried in the galena, neither the zinc-blende nor the grey-copper showing much silver on assay. The ratio of silver to lead in the different showings varies considerably. In the No. 1 tunnel and No. 1 shaft veins (possibly the same vein) the proportion is about 1 oz. of silver to the unit of lead. In the No. 2 shaft vein the proportion is 2 oz. of silver to the unit of lead. The ore in the main contact ore-body shows variation in the proportion of silver to lead in different exposures, varying from less than 1 to over 2 oz. to the unit of lead, but will average well over 1 oz. to the unit.

On the *Homestake* ore-body the proportion is about 2 oz. of silver to the unit of lead. Averaging throughout, it is safe to say that 1½ oz. silver to the unit of lead may be expected. Hand-sorting of the ore should yield a product assaying 50 per cent. lead and 75 oz. silver to the ton. This product would also contain from 5 to 10 per cent. zinc. In shipping to a lead-smelter the zinc content should be kept below 8 per cent., as above that it is penalized at 50 cents a unit. Ore such as this at the present time would be worth form $80 to $100 a ton, depending on market prices of silver and lead.

Conclusion.—The Cronin mine has been more or less steadily developed for eight years. At first the work proved disappointing, especially the No. 1 tunnel on the first vein developed. The showings on the surface were, however, favourable, and Mr. Cronin persisted in the work, putting down shafts, running tunnels, and digging surface cuts.

During the last three years the development-work has proved more successful and the position of the property is better to-day than ever before. The property is not even yet developed to any great extent, but in the opinion of the writer it is reasonable to expect that further development will prove satisfactory and that the mine may yet make a large production.

While a few hundred tons of hand-sorted ore could be shipped this winter over the sleigh-road and quite probably further shipments in future years, the future of the mine is dependent on the development of sufficiently large bodies of milling-ore to warrant the erection of a concentrator.

The construction of the sleigh-road to the property will serve two purposes: (1) It will allow the shipment of sufficient high-grade ore this winter to provide capital for further development; and (2) it will make it possible to take in machinery by means of which the property can be more efficiently developed. The gradual conversion of the sleigh-road into a good wagon-road in the course of a year or two as the development of the property warrants will provide the necessary transportation facilities for hauling the concentrates produced at the mill to the railway.

Cassiar Crown Copper Company.

The property of this company is situated on Grouse mountain, about eighteen miles from Telkwa. The 1914 and 1916 Reports of the Minister of Mines contain reports by the writer giving full description of the work previous to 1917, as well as geological features, etc. During the last two years the driving of a crosscut tunnel to prospect the surface showings at depth has been proceeded with. Owing to the failure to locate the ore-body where it was expected, a good deal of lateral drifting and crosscutting was done which it is now apparent was wasted work. The company's finances were reorganized this summer and new management put in; careful surveys were made which showed the errors in the past work, and a fresh start was made. The tunnel was deflected at a considerable angle from its previous course, and a crew of three men put to work to drive ahead. It was reported in November that the tunnel had entered into some low-grade ore, and as the drift is now in over 1,000 feet, if appreciable ore-bodies exist they should soon be encountered. The property is equipped with a 1-drill gasolene-driven air-compressor.

J. V. Pohlman, managing director of the company, inspected the property in January, and on his return to Spokane gave out the following information for publication:—

"Recent disclosures at the Cassiar Crown Copper property in the Cassiar District, British Columbia, have proved conclusively that the ore-bodies exposed on the surface are continuous to depth.

"My inspection was for the purpose of satisfying myself as to the facts about the recent strike in the long crosscut tunnel, driven to open the property at considerable depth. I found this tunnel had been driven 1,025 feet, at which point it intersected the ore on its downward dip. This was at a depth of about 330 feet on the slope of the vein, approximately 200 feet vertically below the bottom of the shaft.

"The fine ore-channel encountered in the tunnels, news of which was received by the company early in December, measured 5½ feet in width, 4 feet of which averaged 5.9 per cent. copper and 3 oz. in silver, while 16 inches alongside of it averaged 14.9 per cent. copper and 6.8 oz. in silver. At the time of my examination, January 14th, the ore-body had been opened by drifts extended 57 feet northerly and 14 feet southerly, or an aggregate distance of 71 feet. At one point an average sample taken across the entire width of the drift gave results of 7.3 per cent. copper and 3.1 oz. in silver.

"Drifting is proceedings steadily at a satisfactory rate. It is the purpose of the management to increase the working crew to make faster progress. After sufficient development, and as soon as the equipment for economical extraction can be installed, the stoping of ore will begin, with a view to placing the property on a shipping basis as early as possible.

"The surface showings are impressive. The mineral zone varies in width from 15 to 100 feet, and has been opened up at 13 to 15 points on the surface for 3,200 feet along the strike of the vein. The main ore vein within the zone is 5 to 12 feet wide. Samples from these openings reveal a copper content ranging from 5 to 15 per cent. and ½ oz. silver to the per cent. of copper.

"Owing to the fact that the vein had flattened out considerably at depth it was found necessary to extend the tunnel several hundred feet farther than originally calculated; otherwise the ore-zone would have been reached several months ago.

"The Cassiar Crown group consists of five claims situated four miles and a half in a direct line from Walcott Station, on the Grand Trunk Railway, 260 miles east of Prince Rupert, the western terminus. It is situated at an elevation of 4,100 feet, or 2,000 feet above the railway.

"A tramway four miles and a half long will be built from the portal of the main tunnel to the railway, thus connecting the main tunnel with the railway at the nearest point. The property is served with a fair wagon-road, which with some changes can be put in shape for hauling ore."

Bulkley Valley.

Three Lake Group.

This group of four claims, owned by Wilson Bros. and partners, is situated three miles from Knockholt, a station on the Grand Trunk Pacific Railway thirty miles east of Telkwa. During the summer an option on the property was acquired by D. M. Haynes acting as agent for the Tonopah Mining Company. Work was commenced in August with six to eight men and the sinking of a shaft commenced. At the time of writing this report (January) it is reported that development of the property has been discontinued.

The showings on the property are situated at an elevation of 3,500 to 3,700 feet, and in country that consists of rolling hills; the timber has been largely burnt off and now only poplars, small balsam, and pine are left.

The vein on this property is a fracture-zone in which mineralization has taken place by replacement. The gangue-matter is wall-rock, with a considerable development of specularite. Chalcopyrite is the main valuable ore-mineral, although some higher sulphides and oxides are occasionally noted. Low gold and silver values are found in the ore, but copper is the important value.

The rock formation exposed on these claims is an altered complex consisting of sedimentary, tufaceous, and some volcanic members. These rocks are similar in some respects to those on Grouse mountain, and probably belong to the Hazelton formation.

On the north end of the vein a number of open-cuts, short tunnels, and a shaft were made by the owners. Very little ore was found here, but specularite occurs in considerable quantity. On the south end more chalcopyrite is found in the vein, and so here a shaft was sunk by Mr. Haynes. This shaft showed a width of 4 feet of ore extending down the shaft for 15 feet and then gradually faded away, possibly dipping into the wall. At the time of examining the property the shaft was down 30 feet, and since then it has been sunk 20 to 30 feet more and some crosscutting done. No information has been received about the results of this work.

Independent.

This claim is owned by Joe Bussinger and is situated half a mile up the hill from the Government ranch. The development consists of a shaft 40 feet deep and some open-cuts. The vein on this property is from 3 to 4 feet wide, with a well-defined hanging-wall but a very indefinite foot-wall. The wall-rock is a metamorphosed sediment varying from argillite to quartzite. This rock also forms the gangue or vein material, but is somewhat more silicified and contains some bands of true quartz. Chalcopyrite is the important metallic mineral present, with which some pyrite is associated. A shoot of good-grade ore is exposed going down the shaft for 25 feet, averaging about 2 feet in width. Below this the vein is still continuous, but does not contain as much ore.

In October a lease on the property was taken by the Chisholm Bros., who intend to drift on the vein from the bottom of the shaft and also stope out ore. The ore will be hand-sorted and a car-load or more may be extracted during the winter. In the work of sinking the shaft

about 15 tons of ore was produced, which will assay about 12 per cent. copper and 3 oz. in silver. The property is nicely situated for easy operation, being connected with the railway by a good wagon-road, the distance being about four miles.

Hudson Bay Mountain.

In the 1914 and 1916 Reports of the Minister of Mines the writer described a number of claims situated on different parts of Hudson Bay mountain. During the summer of 1917 there was a certain amount of activity in this section, and besides the ordinary annual assessment-work development was carried out on some properties. Two groups were bonded during the year, one of which is still held under option. Only one small shipment of ore was made, consisting of 6 tons from the Schufer property. A car-load of ore was taken out and sacked on the *Victory* group, but was not hauled out to Smithers before the end of the year.

Mamie Group.

This group consists of three claims—the *Mamie*, *Evinrude*, and *Lone Cedar Fraction*—and is owned by J. Aldrich, of Smithers. The property was bonded to C. H. Sproat in the fall, but work had hardly been well started when the bond was relinquished. The property is situated on the southern slope of Hudson Bay mountain, at an elevation of 4,000 to 4,500 feet.

In 1914 a sleigh-road was constructed from Smithers to the *Coronado* camp, a distance of twelve miles. This road serves several properties, including the *Mamie* group, all of which are connected by short trails to the end of the road. This sleigh-road is not in very good condition at the present time, and in summer-time the road is only partly used, the old trail being followed in places.

Hazelton formation rocks form this side of Hudson Bay mountain, with rhyolites and andesites prevailing on the *Mamie* group. These rocks are in part brecciated and in places porphyritic.

The vein consists of a sheared zone 4 to 12 feet wide, occurring in a light-coloured volcanic rock of a rhyolitic type. The hanging-wall rock is porphyritic, while the foot-wall is fine-grained. The gangue-matter consists of wall-rock, practically unaltered; the ore-minerals disseminated through the gangue in bunches and stringers are zinc-blende and arsenopyrite, together with a little chalcopyrite. The main value in the ore is zinc, but the arsenopyrite carries low gold values. Some silver occurs with the zinc, but as a rule the silver content is low.

The development consists of a shaft 20 feet deep, and open-cuts and stripping which expose the vein for 400 feet up and down the hill. These workings show the vein to be fairly well mineralized with zinc-blende. A grab-sample from the dump from the 20-foot shaft assayed: Gold, 0.22 oz.; silver, 7.3 oz.; zinc, 7.5 per cent.

Development of the property by a drift-tunnel on the vein at a point some distance below the shaft was started by Mr. Sproat, but the tunnel was not driven more than a few feet when work was stopped.

White Swan.

This group adjoins the *Mamie* group to the east and is owned by Mark Hanna and Geo. Charlton. A description of this property was given by the writer in the 1914 Annual Report of the Minister of Mines. The ore-showings on this property consist of impregnations along dykes and in sheeted zones in the volcanic rocks. Some of the stringers in places come together so as to form a more or less definite vein, but as a rule the mineralization is irregular.

Galena, zinc-blende, and arsenopyrite occur in the gangue, and in one place a width of 1 foot of clean galena was noted. Development consists of open-cuts, stripping, and shafts. The workings described in 1914 have not been developed further, but cuts have been made on showings discovered since then.

Victory.

This group was described by the writer in the 1914 Annual Report. Since that time ore has been stoped out, sorted, and a few car-loads shipped and the tunnels advanced a little. During the fall of the year Donald Simpson, owner, mined out and sorted a car-load of ore, but this has not yet been hauled to the railway at Smithers.

The best showing on the property is in the No. 4 tunnel, the face of which is all ore of a milling grade. A sample taken there across 4½ feet assayed: Gold, 0.52 oz.; silver, 14 oz.; lead, 13 per cent.; zinc, 16 per cent.

Last Chance.

This property consists of the *Last Chance* and *Lost Dollar* claims and is owned by Geo. Smith and Gus Timmermeister. The claims, which were staked several years ago, are situated on the face of Hudson Bay mountain, directly above and overlooking Lake Kathlyn and at an elevation of about 4,800 feet. The rocks exposed on the property are argillite, quartzite, and conglomerate, belonging to a sedimentary horizon of the Hazelton formation. A small and irregular vein somewhat sparingly mineralized crops out on the surface, striking N. 10° W. and dipping into the hill at about 60 degrees. Pyrite is the main mineral showing, with an occasional speck of galena.

Practically no work has been done on the surface, but a crosscut tunnel 180 feet in length cuts the vein, and a further 27 feet of drifting on the vein has been done. This vein does not look promising anywhere, and two selected samples taken by the writer and assayed for gold and silver did not return any appreciable values.

Grand View.

On the same slope of Hudson Bay mountain, but to the south of the *Last Chance* group, some showings of mineral were staked during 1917 by Jenning Bros., which are known as the *Grand View* group. Hazelton formation rocks consisting of quartzites and argillites cut by porphyritic dykes occur on this slope of the mountain, and in places irregular mineralizations along fracture-zones occur. Pyrite occurs in places, but no other metallic mineral is appreciable quantities was noted. No work has been done on any of these showings. A few samples were taken and assayed for gold and silver, but only traces of the precious metals were found.

A fairly well-defined quartz vein outcrops in one place which carries in the quartz gangue a little pyrite and pyrrhotite, together with specks of galena and chalcopyrite. Samples taken, however, only assayed traces in gold and silver.

Development of these showings is not advisable unless in some place appreciable values in some metal are obtained.

Schufer Property.

This property was reported on by the writer in the 1916 Annual Report, but was re-examined this year in order to see new development, and, in company with the owner, to get a more comprehensive view of all the showings. The description last year was mainly with regard to the zinc-pyrrhotite ore-body on the property, about which it is unnecessary to say more. Showings of mixed zinc and pyrrhotite are numerous in different cuts on the claims, but as a rule the zinc content is not much above 10 per cent. In places the pyrrhotite carries from $2 to $5 in gold.

The main work done since last year was the driving of a tunnel 25 feet in length on the upper vein, which has exposed a nice shoot of ore. This vein is from 1 to 2 feet wide and is heavily mineralized with galena, zinc-blende, pyrite, and small amounts of chalcopyrite.

The tunnel shows practically continuous ore, and at the face the vein is 2 feet wide, consisting of mixed sulphides of lead, zinc, and iron. Sorted ore from this vein will run from 100 to 200 oz. in silver to the ton. A shipment of 5½ tons of this sorted ore was made in the fall of the year which averaged nearly 250 oz. in silver to the ton. The property is owned by P. Schufer, Smithers, and L. Woods and will probably be developed further in 1918.

Carroll Property.

This group of claims, which is owned by Dan Carroll, is situated on the north-eastern slope of Hudson Bay mountain and about a mile from the Schufer property, on another ridge of the mountain. The property is at present under option to Mr. Jobe, who last year had three or four men at work developing the showings by tunnels. This work was stopped when the winter weather set in, but will probably be resumed in 1918.

The formation exposed on these claims consists of volcanic rocks of the Hazelton formation, chiefly andesites and diabases. Two veins are exposed on the property, which strike, roughly, south-west and dip rather flatly to the north-west. On the surface these veins are very much oxidized and leached out. They vary in width from 2 to 4 feet and carry in places narrow bands of galena. The balance of the vein is a gangue similar to the wall-rock. Owing to snow on the ground at the time of examination it was impossible to see the surface croppings of the veins properly; but they are said to be exposed for considerable distances up and down the mountain-side by open-cuts.

The lower vein has been prospected by a tunnel 100 feet long, which shows that the vein to this depth is leached out and decomposed into loose, crumby rock-matter. No sulphides at all were seen in the tunnel. A sample taken across 3 feet of leached vein material in the tunnel

assayed: Gold, 0.12 oz.; silver, 6 oz. Another grab sample from a 3-ton dump from the tunnel returned: Gold, 0.24 oz.; silver, 7.8 oz. A sample across 18 inches of oxidized vein material in a surface cut assayed: Gold, 0.36 oz.; silver, 9.3 oz.; lead, 6 per cent. It is probable that the vein at these points carried some galena and arsenopyrite which is now completely oxidized.

The upper vein is similar to the lower one and is developed by a 90-foot crosscut tunnel. This vein is also very much leached and therefore shows very little sulphides. At the face of the tunnel the vein is represented by streaks of leached-out material separated by bands of harder unaltered rock. Above the tunnel an open-cut exposes the vein, which at this point carries a 3-inch band of clean galena; a selected sample of this galena assayed: Gold, 0.04 oz.; silver, 160 oz.; lead, 73 per cent.

Camp buildings have been erected at an elevation of 4,100 feet; the lower tunnel is at 4,600 feet and the upper tunnel at 5,200 feet.

More extensive shoots of galena may be found in these veins below the zone of surface oxidation.

Howson Basin.

The name "Howson basin" is applied to a district lying around the headwaters of the South fork of the Telkwa river and Howson creek, a large tributary of the South fork. At the head of Howson creek there is an actual basin around and in which a number of claims are staked, but the name "Howson basin" includes the larger district described. This section is distant some thirty miles from Telkwa and is now provided with transportation facilities by means of a wagon-road.

Claims were staked in this district as long ago as 1905, but until last year no production had been made. A fair amount of development-work on various properties has been carried out in the past years, but still many claims are quite undeveloped. The district has been reported on by W. W. Leach, of the Geological Survey, in 1906, the Provincial Mineralogist in 1911, and brief mention is given in last year's Annual Report of the Minister of Mines.

Until last year access to the district was by means of a wagon-road five miles in length up the Telkwa river and pack-trail for the balance of the distance. In the fall of 1916 a rough sleigh-road was built by the Jefferson-Dockrill Syndicate from Telkwa to the *Santa Maria* mine, and this year this road was very considerably improved. It is now a good wagon-road for twenty miles and a sleigh-road for the remainder of the distance. This last work was done under the supervision of the Public Works Engineers, and matters have been finally arranged so that one-half of the total cost of the road has been paid by the Jefferson-Dockrill Syndicate and one-half by the Government, the latter coming from the "Mines Development Fund." This road, besides serving the *Santa Maria* mine (Jefferson-Dockrill), should prove of benefit in opening up the district generally. The knowledge that transportation of ore from the district is possible should encourage the development of other properties which have lain idle for years, as well as provide an incentive for further prospecting.

Topographic and Geologic Features.—Physiographically, this district lies in the Coast mountains of the Pacific system. The Coast mountains in this portion of the Province do not consist of a single defined range unit, as is the case farther south, but are rather a system of ranges, with the western range forming the main Coast range. The easterly groups may be considered as spurs from the main range, but nevertheless they reach equal or greater elevations as compared with the main range and in part are physically separated by important valleys. Geologically, these easterly ranges should be connected with the main Coast range on account of their being formed in varying degrees from west to east of granitic rocks contemporaneous in age and identical in lithological character with the Coast Range batholithic rocks.

In this district the Telkwa range forms the eastern portion of the Coast mountains. This range is not separated from the main Coast range by any very definite trench, but merges insensibly into the main western range. The small valleys occupied by the northerly swinging portion of the Zymoetz river, the Kitnaiakwa river, and a small northerly branch of the Morice river may be considered as defining in an indefinite way the western edge of the Telkwa range. The Telkwa range may be considered as extending easterly nearly to the Bulkley valley from the western boundary outlined above. To the north this range decreases in height and gives way to a plateau-like country, finally dropping down to the low country surrounding Hudson Bay mountain. Similarly, to the east the mountains gradually descend in elevation until the

wide terraced valley of the Bulkley river is reached. To the south the Telkwa mountains gradually merge into the main Coast range, which trends south-easterly, around the headwaters of the Morice river.

Hudson Bay mountain, an impressive rugged pile of rocks reaching an elevation of 8,800 feet, is surrounded on all sides by plateau country not higher than 3,500 feet in elevation, and therefore forms a most conspicuous feature on the landscape. It is one of the most striking scenic spots along the line of the Grand Trunk Pacific Railway, and while not equal in elevation with the more widely advertised peaks, it loses nothing in majestic grandeur; on its western face a glacier rests which can be seen from the railway for several miles. Hudson Bay mountain is a mountain mass separated from all other mountains and cannot be connected definitely with the Coast mountains, although possibly its age and origin are similar.

Howson Basin camp is situated in the Telkwa mountains, but on the westerly slope of the divide; this divide of the range is the watershed between the Telkwa and Zymoetz rivers. The country is mountainous and rugged and the relief is considerable. The highest elevations reach about 6,500 feet, while the valley of the South fork is about 3,500 feet.

The geology of this section of country has been worked out in considerable detail by W. W. Leach, of the Canadian Geological Survey; his bulletin entitled "The Telkwa River and Vicinity" contains a topographic and geologic map covering an area from the Bulkley valley to the Coast range and including a considerable portion of the Telkwa range.

From this it is seen that the Hazelton formation covers about 90 per cent. of the map-sheet. Small remnants of the Skeena coal-bearing formation occur on the eastern edge of the sheet. Near the western border of the sheet there is an irregular area of granite and syenite porphyry covering about twenty-five square miles, which rocks are assigned to the Bulkley eruptives. No other formations are shown, although the possibility of Tertiary rocks occurring is pointed out in the bulletin.

On the western border of the geologic sheet the contact of the Hazelton formation with the Coast Range granitoid rocks is placed. The contact relations are not discussed, but it would seem likely that here, as has been found in many other places, the Coast Range batholithic rocks are intrusive into the Hazelton formation. On closer examination it will probably also be found that the area of granite and syenite porphyries classed as Bulkley eruptives can be genetically correlated with the Coast Range rocks. They form one of the offshoots of the Coast batholiths, which are of frequent occurrence along the eastern border of the main range.

This intrusive area of granite and syenite porphyries is of great importance economically, as it is in the contact-zone of these rocks that the mineral showings of Howson Basin camp are found. It is apparent that the intrusion of these granitic rocks has been the agency by which mineralization in the district has been effected. The Hazelton formation consists here almost entirely of volcanic rocks, of which a red andesite is the most common member; this andesite shows many variations, being sometimes amygdaloidal, often porphryritic, and frequently brecciated. Tuffs, agglomerates, and occasionally basic flows make up the rest of this series of volcanic rocks. The whole series has been subjected to considerable regional metamorphism, which is a typical feature of Hazelton formation rocks wherever found. Near the borders of the intrusive granites local metamorphism is evident, and in places the volcanics are altered into bands of schist. This volcanic series has in part at least been laid down under water and all are more or less regularly bedded. Leach estimates the thickness of these rocks in this district to be at least 5,000 feet.

The Hazelton formation in this district has no definite direction of strike and dip, but in common with the other mountain ranges of the Province the general trend is north-westerly. The series is twisted, folded, and bent into anticlines and synclines in all directions, varying from one locality to another.

The ore-bodies in the Howson Basin camp are as a rule developed along fractured zones in the Hazelton formation volcanic rocks; some of them have been classified as mineralizations along the walls and in dykes cutting the volcanics. The only property in which the ore occurs in a well-defined vein is the *Santa Maria.*

The important ore-mineral present in the different showings is chalcopyrite, with which is associated some pyrite and pyrrhotite. Gold values are either absent or very low, and the silver content is also quite low. The *Santa Maria* ore differs from the others in consisting of the higher copper sulphides, bornite, and chalcocite. Oxidation on the surface is usual, resulting in

an "iron-cap" which is a marked feature of the outcrops. The gangue in which the metallic minerals occur is the volcanic rock, together with a little quartz and calcite; alteration of the normal constituents of the volcanic rock has caused the occurrence of epidote, chlorite, sericite, and other secondary minerals.

Duchess. This property is situated at the head of Howson creek and is owned by the Telkwa Mines, Limited; the claims constituting the group were Crown-granted some years ago. In 1915 the Jefferson-Dockrill Syndicate bonded the property and developed it for a year, but finally allowed the bond to lapse.

The ore-zone is prospected by two tunnels, but owing to the irregular nature of the mineralization and surface features it is by no means certain that the true strike of the ore-zone has been ascertained. Apparently at the upper tunnel (elevation 5,300 feet) the strike is N. 5° W., but the tunnel after going in on the ore for 90 feet passes out into country-rock which continues to the face, a total distance of 253 feet. At a point 90 feet in the tunnel a half-crosscut going 20 feet to the west is in ore. All the rock exposed along this first part of the tunnel (90 feet) can be called ore and would probably average 4 to 5 per cent. copper. Beyond this point the tunnel passes out of the ore, and although several crosscuts were made no continuation of the ore-zone was found. In all, the tunnel workings total about 500 feet.

The lower tunnel is 167 feet below the upper one and is supposed to be driven on the strike of the same ore-zone. It is 60 feet long and throughout its length is in altered volcanic rock of a diabase type. Very little mineralization is apparent; specks of chalcopyrite occur disseminated through the rock, together with some pyrite.

At an elevation of 5,700 feet a large cut 20 feet in length and with a 20-foot face shows a clean-cut dyke of dioritic affinities, which is 4 feet wide, cutting the volcanic rocks. On either side of this dyke a little mineral, consisting of pyrite, specular iron, and chalcopyrite, is developed.

In the main (upper) tunnel the rock formations exposed consist of both acid and basic volcanic rocks, with the latter type predominating. Some of these rocks may be fine-grained dykes or sills injected into the volcanic members, but the exact relations are difficult to ascertain. The supposition has been that this ore-zone was a large dyke cutting through the older rocks, which dyke had been mineralized. It seems much more likely that mineralization has followed along lines of fracturing and cross-fracturing in the volcanic rocks and possibly intercalated dykes; and so very irregular ore-bodies might be expected.

A careful study of the property from this view-point might repay the time spent. By abandoning the "dyke" idea and tracing up the fracture-lines and doing some surface prospecting, much information as to the origin of the mineralization might be obtained, which would result in more extensive ore-bodies being found. The writer only had time to spend an hour on the property, so that these ideas are simply put forward as suggestions, not opinions.

Evening. The Telkwa Mining, Milling, and Development Company owns 44 Crown-granted mineral claims situated near the head of Howson creek; the most important of these is the *Evening* group. At an elevation of 5,500 feet and on the sloping face of a bluff an open-cut working has been made which shows some mineralization. At this point there occurs a contact between andesite and diabase, with 6 inches of crushed rock and gouge along the contact. The diabase is mineralized in an irregular and bunchy manner with chalcopyrite, and it is apparent that as a whole the mineralization is not sufficient to constitute the rock-matter as being ore.

Numerous other similar showings have been slightly prospected on these claims, but time was not available to see them.

Silver Heels. Two claims—the *Silver Heels* and *Whispering Wind*—constitute this group, which is situated at the head of Silver Heels basin, which drains into Howson creek. Jefferson & Dockrill are the owners and the claims are held by annual assessment. The main showing is on the *Silver Heels* claim, at an elevation of 5,800 feet. There is here a fairly well-defined mineralized zone 10 to 15 feet wide, striking N. 35° W. and occurring in andesite rock. A sample cut across 11 feet assayed: Gold, trace; silver, 1 oz.; copper, 2.3 per cent.

No other showings in the Howson Basin camp were examined, but there are said to be many occurrences of disseminated chalcopyrite. The possibilities for the camp are that some of these may on development prove to contain considerable tonnages of low-grade copper ore.

Santa Maria.

This group consists of the *Telkwa*, *Howson*, *Santa Maria*, and *Catherine* claims. The claims were staked in 1916 by Jimmy Michelle, Felix George, and Father Godfrey Eichelbacher. Shortly after being staked the claims were secured under option by Chisholm Bros., who transferred their rights to the Jefferson-Dockrill Syndicate, the present operators. The property is situated in the section of country known as Howson basin, although, strictly speaking, it is not in the basin. It lies about a mile west of Howson lake and about three miles up Howson creek from where the creek joins the South fork of the Telkwa river. The route used in getting to the property is up the Telkwa river, South fork, and Howson creek, a total distance from Telkwa of twenty-seven or twenty-eight miles.

A pack-trail was put into the Howson Basin section several years ago, and by last year a wagon-road from Telkwa extended six miles up the Telkwa river. In the fall of 1916 the Jefferson-Dockrill Syndicate commenced at this point and cut out and partially graded a sleigh-road to the *Santa Maria* mine. This road, of course, became useless in spring for wagon transportation, and for the efficient working of the property a wagon-road is required.

On securing the property the Jefferson-Dockrill Syndicate immediately commenced active development. An incline shaft was sunk 82 feet, and from the 60-foot level drifts have been run 120 feet to the south and 102 feet to the north. From the south drift a stope 40 feet in length was put up to within 12 feet of the surface, and a smaller one on the north drift 20 feet long at the bottom and apexing into the shaft. From the ore taken out of these stopes 239 tons was hand-sorted, hauled out on sleighs, and shipped to the Anyox smelter. The average assay of this ore was 17 per cent. copper and 9.5 oz. in silver, with a trace of gold.

In the early months of 1917 machinery as follows was taken in and installed: A Mietz & Weiss semi-Diesel engine of 50 horse-power; an air-compressor with a capacity of 236 cubic feet a minute, sufficient to run three drills; a small hoist capable of sinking from 300 to 400 feet; pumps, tanks, piping, and miscellaneous fittings of all kinds that were necessary. All ore was stoped by hand before the machinery was installed.

At the time of examination of the property the shaft was filled with water to within about 20 feet of the surface; therefore the vein could only be examined on the surface and along 40 feet on the top of the south stope. After getting the machinery installed and a little drifting done work was discontinued on May 15th. By that time the snow had gone and the sleigh-road was in disrepair. In July road-work was commenced and the road made into a wagon-road to within eight miles of the property.

In the fall work was resumed at the mine and the shaft was sunk to 120 feet depth. The shaft was kept on the incline, and as the vein had straightened up a crosscut 15 feet in length was necessary to pick up the vein from the bottom of the shaft. Some drifting was done on the vein, but at this level no ore was found, although the vein is well defined. After some prospecting and crosscutting at this level work was stopped at the end of the year and the mine closed down. Nothing is known regarding plans for further development.

Geological Features.—The vein on the *Santa Maria* is a replacement ore-body lying in the contact between two different rock formations, which are provisionally classified as quartz porphyry on the hanging-wall and andesite porphyrite on the foot-wall. Both rocks are probably pyroclastic in origin, at least to some extent, as in places they exhibit an incipient bedded structure. On closer examination both may be listed as tufaceous rocks. The vein is well defined and regular, the hanging-wall being extremely well marked with a 2-inch layer of gouge next to it. The foot-wall is indefinite, but mineralization does not extend into the foot-wall proper to any appreciable distance. The vein-filling is made up largely of the foot-wall rock which has been altered, silicified, and mineralized. A considerable development of bluish-black quartz occurs which is frequently associated with the ore. The width of the vein is from 4 to 7 feet, with an average of perhaps 5½ feet. The strike of the vein is practically north and south; the dip at the surface is 45 degrees, but in the shaft the vein straightened up to 60 degrees, and then to 70 degrees near the bottom.

The ore-minerals occurring in the vein are chalcocite and bornite, and occasionally a little black oxide of copper. Pyrite occurs in small quantities, but as far as can be ascertained no chalcopyrite has been detected as yet in the shaft-workings. Malachite, azurite, and iron oxide are plentiful throughout the ore, and the vein has the general appearance of an oxidized ore-body. It is impossible as yet to say whether or not the bornite and chalcocite occurring in the

vein are of a secondary nature derived from primary chalcopyrite in the vein. It seems possible that at least some of the bornite is primary, but that the chalcocite is secondary from the bornite. It would seem probable, though, that at greater depth some chalcopyrite will be found in the vein. At greater depth the ore may be found to consist of bornite and chalcopyrite, with a gradual elimination of chalcocite, which would mean a lessening of the grade of the ore. Sufficient information is not yet available, however, for any definite statement on this point.

The copper minerals do not occur disseminated all through the vein-filling, but run in bands and streaks of fairly concentrated ore, alternating with strips of waste. A part of the vein can therefore be rejected in mining as waste and only the mineralized portions are hand-sorted, from which the shipping-ore is extracted. The top of the 40-foot southern stope shows some nice ore in the vein in small streaks, the largest one noted being about 1 foot in width. The best showing of ore at any time seen in the mine was 5 feet of nearly solid chalcocite and bornite occurring in the southern stope. At 48 feet from the shaft on the north drift an ore-shoot was encountered which continued to the face, a further distance of 54 feet. From 1 to 2 feet of 12-per-cent. ore is exposed in this shoot.

The vein is exposed on the surface a short distance south of the shaft in an open-cut which shows it to be slightly mineralized. Three hundred and fifty feet to the south the vein is again exposed in a surface cut. Here the vein carried from 1 to 2 feet of nice ore; it is of the same average size as in the shaft and looks quite promising at this point. The occurrence of ore here may be taken as an indication that the vein will be mineralized for this distance southerly from the shaft. Such mineralization will probably be intermittent, as is the case in the shaft-workings. Taken with the north drift, this makes a distance of 450 feet along the strike of the vein in which ore may be expected to be found. An air-pipe has been laid to this open-cut and it was intended to sink a prospect shaft here; a large surface stope was made and a shaft started and put down 14 feet when work was stopped. At this place the vein shows 4 to 5 feet of ore of milling grade, but not of high enough grade for shipment.

At a point 800 feet southerly from the shaft, and practically on the line of strike of the vein, a cropping of ore has been partially uncovered. Sufficient work has not been done here to determine the true character of this occurrence of ore, and the writer was unable to determine whether or not this is a continuation of the main vein. At this point the ore is chalcopyrite, together with some pyrite and oxidation products of those minerals. No strike or dip to the ore occurrence could be made out, but the bottom of the cut shows 3 to 4 feet of rock in which there is disseminated chalcopyrite, the whole averaging possibly 2 to 4 per cent. copper. If this is a continuation of the main vein, then it is quite likely that chalcopyrite will be found in the shaft-workings at greater depth.

These open-cuts just described are the only places in which the vein is exposed on the surface, a layer of wash covering the rock formation nearly everywhere.

General Remarks.—The *Santa Maria* mine is situated at an elevation of 4,300 feet, well below timber-line. Timber for mine purposes is plentiful and the water for the camp is obtained from a small creek near by. The camp buildings erected are a cook-house, bunk-house, root-house, and office. The mine is situated in a convenient place and it is at present well equipped for further work. All development for some time will have to be by shaft-sinking.

Several small water-powers are within about three miles of the property. From 260 to 300 horse-power could be developed on Howson creek or on the South fork of the Telkwa river. If the mine develops to a stage to warrant it, there will be no difficulty in developing plenty of hydro-electric power to operate with.

Telkwa River.

Many claims have been staked in the past ten years in the country surrounding the head of the Telkwa river and its tributary creeks. None of these have, however, been developed to any great extent, although annual assessment-work is done on some of them. The wagon-road up the Telkwa river to the South fork brings these claims closer to transportation, and if any of them on development reach the shipping stage the road can be continued so as to serve them.

Copper Queen. This group consists of three claims situated on the West fork of Wingfield creek, a small stream coming into the Telkwa river near its head. The owners are Ben Peterson and Fred Griffin. The property is reached by a very poor trail leaving the main Telkwa River trail at the flats above the South Fork bridge; the branch trail is six or seven miles long.

A large open-cut 15 x 20 x 8 feet has been made which exposes an irregular vein in andesitic rock. The vein, while not well defined, may be considered to be from 2 to 4 feet wide, but much of this vein material is the same as the wall-rock. Within the vein a pay-shoot of rich copper ore occurs, varying in width from 1 inch up to 12 inches. This pay-shoot is irregular and cuts off abruptly and then comes in again. The copper ore consists of bornite and chalcocite, with a very little chalcopyrite. Solid ore occurs in bunches, and some also occurs which is a mixture of gangue and disseminated copper minerals. By hand-sorting a product running 20 to 30 per cent. copper could easily be obtained. The smallness and irregularity of the pay-shoot, however, make the costs of mining very high. A shipment of 7 tons was packed out and shipped by the owners late in the year, but nothing is known regarding returns. The property is an undeveloped prospect, but it will pay the owners to develop it somewhat to see if it contains a continuous pay-shoot of fair size of the rich copper minerals.

The same men staked a group of six claims, known as the *International* group, about two miles distant from the *Copper Queen* group. Some slight impregnations of chalcopyrite and associated copper-stain occurring along fracture-planes in amgydaloidal basaltic rock were prospected slightly, but the showings are of no importance.

Big Four Group.

This group, consisting of the *Big Four* and *Hidden Treasure* claims, and owned by P. Powers, J. Beaman, R. Hamilton, and Geo. Charlton, is situated on the mountain lying between Milk creek and the Telkwa river. The principal showing is at an elevation of 3,250 feet, in heavy timber, and on the slope to the Telkwa river. The claims were staked in 1910, reported on by the Provincial Mineralogist in 1911 and again in 1914. On reading these old reports it is apparent that comparatively little work has been done since 1911. The claims are held by annual assessment.

The surface is heavily covered with wash, trees, and fallen timber, and at the present time sufficient development has not been done to disclose the exact nature of the ore-body exposed on this property. As far as could be determined, the rock formation consists of altered volcanic rocks intruded by quartz porphyry and granitic dykes. Possibly the volcanic rocks so called are intrusive dykes cutting a fine-grained acid granitic rock. There are several showings of quartz, more or less mineralized, and of considerable size exposed in shallow cuts. The most important of these is an exposure roughly 17 feet square, in which, to judge by the eye, there is sufficient mineralization with galena and pyrite to constitute it milling-ore. Other cuts show from 5 to 20 feet of quartz with more or less mineralization. It is difficult to tell in which way the vein or ore-body strikes, but apparently it is north-westerly. If the ore-body is a definite vein, as would seem apparent, then it is faulted and probably cut by several dykes. More work is required before anything definite can be ascertained regarding the property. The indications are that this property may have an ore-body of considerable size of milling grade, and therefore it warrants further development. It would be good policy for the owners to make the small expenditure required to put the property in such shape that it could be systematically sampled and sized up, which is impossible at present.

Besides galena and pyrite, the quartz carries some chalcopyrite; sufficient to be a source of value if the ore was concentrated. The galena is unfortunately low in silver; a selected sample of this mineral returning on assay: Gold, 0.02 oz.; silver, 13 oz.; lead, 68 per cent. A sample taken in 1914 from a small lot of roughly selected ore from the main showing returned: Gold, 0.02 oz.; silver, 7.2 oz.; lead, 36.3 per cent.; copper, 2.5 per cent.

Sweeney Mountain.

Emerald.

This property is situated on Sweeney mountain, in the Sibola district, some sixty miles south of Houston, on the Grand Trunk Pacific Railway. It was reported on by the writer in the 1916 Annual Report, and during the past summer was further developed and examined by several engineers for intending purchasers. In November the property, together with an adjoining group, was secured under lease and bond by James Cronin, the well-known silver-lead operator, who is acting as agent for New York capitalists. Development will be commenced as early in the spring of 1918 as is practicable. Several parties of prospectors were in this district during the season.

COAL.

It has been known for several years that the Omineca Mining Division contained many areas of coal-bearing formations, and at one time the probability of there soon being a number

of producing coal-mines in the Division was regarded as almost a certainty. D. B. Dowling, in compiling the "Coal Resources of the World" for presentation to the International Geological Congress in 1913, credited the "Northern Interior" with a "probable reserve" of 8,200,000,000 metric tons of coal. This estimate included all kinds of coal and included "seams of 1 foot and over to a depth of 4,000 feet." These hopes were based mainly on the coalfields along the Skeena, Bulkley, Telkwa, and Morice rivers, and the Groundhog field, which lies partly in the northern part of Omineca Division and partly in the Skeena and Stikine Divisions; from 1910 to 1912 considerable interest was shown in the Groundhog field.

It is to be regretted that these early expectations have not materialized, as there is not yet a producing coal-mine in the Omineca Division; but it must not, however, be concluded that all the possible coal-bearing areas have been thoroughly tested. There is no question but that there are some areas in which commercial coal exists in fairly large tonnages, and it is quite probable that eventually some of these will be mined.

Many other conditions besides the actual existence of coal are necessary before profitable coal-mining can be established. Transportation and market are vital factors; of these the market question is perhaps the most important. Given a good coalfield and a good market, the transportation problem can be overcome. The coal areas on the Bulkley and Skeena, which are close to the Grand Trunk Pacific Railway, where tested have unfortunately not as yet been proved to be commercially successful. A number of these have been drilled, and the conclusion arrived at from these drillings has been that none of these areas was promising enough to warrant the expenditure of opening up and equipping a coal-mine. In some instances the area of coal-bearing rocks proved to be too small; in others the measures are so badly faulted, twisted, and broken as to make mining unduly expensive; in others, where other features are favourable, the ash content in the coal is so high as to render it unmarketable. It must not be assumed that all the coal in the Northern Interior is so uniformly high in ash as to make it unsaleable, as there are at least some areas where the average analyses show a lower ash content than in the average coal mined in the Province.

A combination of unfortunate factors has made the areas contiguous to the transcontinental railway of slight economic value, but there are other areas at some distance from the railway where such particular disadvantages do not exist. With these, however, the transportation question is the difficulty, as it is necessary that a coal-mine should ship its product by rail. The market question comes in here, as an assured market for a large tonnage of coal must be available before the expense of building branch railways to these far-removed areas can be considered. When the Grand Trunk Pacific Railway Company was unable to secure a coalfield in the immediate vicinity of its railway-line, the company was more or less forced to equip the line with locomotives using crude oil as a fuel. This oil comes from California and Peruvian oilfields, and the company hauls it from Prince Rupert as far east as Alberta. While this policy was more or less forced on the railway company, a more vigorous effort to develop other known coalfields might have been successful, and the opening of a productive coalfield would have quickened the general development of the country.

Another possible market for coal from this district is the coastwise and ocean-going ships which make Prince Rupert a port of call. Some years ago, however, the cheapness and desirability of crude oil as a fuel became evident, with the result that nearly all of the boats plying on the Coast were converted to oil-burners. Another possible market was therefore shut off and the local market in northern British Columbia is very small. The owners of undeveloped coalfields had perforce, therefore, to adopt the wait-and-see policy.

During the last two years the economic changes wrought by the war have again brought coal back to its rightful place in the economic life and development of the nation. Coal on the Pacific Coast, and it may be said the world generally, is in great demand, as the high and ever-increasing price of fuel-oil and its derivatives has caused the users of oil to consider the advisability of reverting back to coal as a source of energy. At the present time the balance is very much in favour of coal as compared with oil in point of cost per horse-power developed. This high price of oil is not entirely due to the heavy demands for oil occasioned by the war, but is in part due to the gradual exhaustion of the known productive oilfields. The best authorities, such as Director Manning, of the United States Bureau of Mines, are of the opinion that the price of oil must continue to gradually rise.

Zymoetz River Coalfield.

In 1914 the writer examined the coalfield lying on Chettleburgh creek, a tributary of the Zymoetz river, and distant about forty miles from Telkwa. There are two good seams of coal exposed at this place, respectively 9 and 6 feet in thickness, which are slightly developed by short prospect-tunnels. The coal-measures are exposed up and down Chettleburgh creek for two miles, but owing to concealment of the rock formation by surface wash the other dimensions of the basin are unknown.

The property, consisting of seventy-five leases, is owned by the Copper River Coal Company. The National Finance Company, now in liquidation, handled the property as fiscal agents until 1914. The property is now being handled by the Yorkshire and Canadian Trust, Limited, Vancouver, liquidators of the National Finance Company. In the 1914 Annual Report of the Minister of Mines the writer gave a complete description of this field, with sections, analyses, etc.; to this report the reader is referred, as there is nothing further to record since that time.

A diamond-drill was taken in to the property during the winter of 1913, but has never been used, all work having been stopped since 1914.

Diamond-drilling on this property is the easiest and cheapest way in which this coalfield can be prospected and tested. The present showings are of sufficient promise and importance to warrant the expenditure necessary for drilling, as a reasonable speculation for anybody desirous of securing a supply of coal. It must, of course, be remembered that a railway thirty-five to forty miles long is a necessity for opening up this coalfield, and it is obvious that the existence of a large tonnage of coal of commercial grade must first be proven before the construction of such a railway can be considered. When, however, the demand for coal becomes acute, as seems likely to occur in the near future, then the drilling of this coalfield will undoubtedly be undertaken by some one.

Prince Rupert Coalfields Company.

The property controlled by the Prince Rupert Coalfields comprises two areas of ten sections each, covering 12,800 acres. The northern area lies along and on each side of Goldstream, a tributary of the North fork of the Morice river, while the southern area extends along the east side of the North fork of the Morice; the two areas being only separated by one mile of territory.

This coalfield lies practically on the low divide separating the Morice river and the South fork of the Telkwa, and at an elevation of 3,750 feet. It is distant about thirty-five miles from Telkwa, the nearest point on the Grand Trunk Pacific Railway. The route to the property is up the Telkwa river to the junction of the South fork, and thence up that stream to its head and a few miles beyond. Until recently the means of communication was by pack-trail, but now the wagon-road to the *Santa Maria* mine provides better transportation. The distance from the *Santa Maria* to the coal property is about ten miles, which distance is covered by an indifferent pack-trail. In the event of further development of the property ten miles of easily constructed wagon-road would link up the property with the *Santa Maria* road.

The property was reported on by Leach in 1907, who found that the main basin covered an area of two by two and a half miles, and that there were exposed three seams of coal, of which the following analyses are given:—

Sample.	Moisture.	V.C.M.	Fixed Carbon.	Ash.
From 8-foot seam.....	4.67	30.55	55.23	9.55 (non-coking).
From 6½-foot seam.....	6.36	28.36	58.75	6.53 (non-coking).
From 3½-foot seam.....	6.86	27.24	59.47	6.43 (non-coking).

This property is mentioned again in the 1915 Summary Report of the Survey, when a very unfavourable comment is made as follows: "On two of the headwaters of Goldstream, a tributary of the Morice river, small coal-basins occur. These areas were outlined by the writer and both found to be very small, the larger not over two or three square miles in area. Details of structure could not be ascertained owing to the lack of exposures, but the remote location and the small possible area of coal renders these coal-basins economically unimportant." By taking the facts as stated in the Survey Reports of 18 feet of coal underlying two and a half

square miles, we get approximately 30,000,000 tons of minable, recoverable coal, or, roughly, a production of 1,000 tons a day for ninety years; surely not such a small possible area of coal.

This coal property is controlled by the Jefferson-Dockrill Syndicate, which is financed by New York capital. After some preliminary prospecting of the seams by open-cuts and short tunnels a diamond-drill outfit was taken into the property in 1912 by way of the Morice river from Houston. Several coal-basins in this district were drilled, and the final conclusion arrived at was that the two coal areas now held by the company were the only areas worth holding; the other coal leases being therefore abandoned. Of these two areas the northern one is considered to be of considerable importance, while the other is of possible value as an adjunct to the former. The northern area was tested with two drill-holes, as will be described later, but more testing would be desirable before the approximate tonnage of coal in the basin could be definitely ascertained. The prospecting of this coal area, however, which has been done is quite sufficient to allow of a tonnage estimate of probable coal being made which is very likely to prove approximately correct.

The writer has never examined this coal area and there would be little to be gained by such examination. The outcrops of coal are all that could be seen, as the prospect tunnels are all caved in, but the report by Leach gives the facts regarding the seams and their size and quality. From Mr. Jefferson information regarding the drilling has been obtained. A report on this coalfield was made for the syndicate by G. B. D. Turner, M.E., in 1915, and through the courtesy of Mr. Jefferson this report was loaned to the writer with permission to publish extracts from it.

This report is decidedly favourable in tone and says that the property is worthy of exploitation. The following excerpts give the more important information in the report, besides which there are sections on situation, acreage, machinery equipment, construction-work, railway, market, etc.:—

"*Geology.*—The geology of the region covering the area, when studied out, is very simple, and has been dealt with quite extensively by the late W. W. Leach in the Reports of the Geological Survey of Canada under the title of the 'Telkwa River Vicinity'; these reports have provided a large amount of valuable information on the subject. Briefly, the area under consideration consists mainly, in the first instance and underlying the coalfield, of a series of bedded volcanics belonging to the Porphyrite group; immediately overlying these rocks occurs a series of sedimentary rocks, composed of clay shales, containing three important coal-seams; at the foot of this series and overlying the volcanics is a bed of coarse conglomerate, which is recognized as the floor of the coal-measures.

"A great deal of work has been done in trying to establish the coal areas in the Telkwa district, which has presented many difficulties owing to the exceedingly soft nature of the coal-bearing strata, which in most places have been eroded from the higher ridges and there only remain isolated basins and a few detached remnants; however, the coal area under consideration, especially on Goldstream basin, is of great commercial importance, the extent of which has been proven by the outcrop of the seams followed by diamond-drill work. During 1907 Mr. Leach examined this discovery and reported to the Dominion Government as follows:—

"'On Goldstream, a little below its junction with Coal creek, a new coal area was discovered last year. This area, about two by two miles and a half at its greatest diameters, is in the form of a basin, the coal outcropping on both sides, at from 400 to 500 feet above the floor of the valley. The coal dips towards the creek from both sides, with a slope rather greater than that of the hills, so that it underlies the bed of the stream, although at no great depth.

"'Up Goldstream this area is separated from that of Coal creek, probably by an anticline, the coal-measures having been removed from its axis by denudation. At the lower end the limits of the coal-bearing strata are not so closely defined, but in all probability the creek has there cut through the coal-measures to the underlying volcanics, this cutting being accentuated by another anticlinical fold.

"'The coal has been opened up at only one place, where two seams have been uncovered, the upper one showing 5½ feet of clean coal, overlain by about 1½ feet of soft, impure coaly material, the cut not having been extended far enough to locate the roof clearly. The lower seam shows 3½ feet of clean, bright coal. No analyses have as yet been made of these coals, but in appearance they closely resemble the coal from Coal creek. At several other points across the basin the coal-outcrop was noted, but no time was available to open up the seams.

"'No evidences of local disturbances or faulting of any great extent were noted. Another and smaller area was seen about two miles farther down Goldstream, but has not been opened up.'

"*The Northern Area.*—The basin represents a syncline and in shape takes the form of a saucer, with as high a pitch as 30 degrees at the outer edges. The outcrop of coal is well defined at places where exposed, so that there is no doubt as to the boundary of the coalfield, and diamond-drilling has effected its purpose of determining the coal in place under cover.

"The coal as exposed on the surface, even though it has been exposed to the weather for a number of years, is clean, bright, and hard and of good cleavage. It will stand considerable handling without much loss in slack. A general analysis of the coal gave the following result:—

Moisture	2.5
Volatile matter	30.5
Fixed carbon	60.8
Ash	6.2

And sulphur not more than ½ of 1 per cent.

"It will be readily seen that this coal will make an excellent fuel; the two upper seams, according to tests, will coke, but the lowest seam, which it is proposed to work in the first place, is essentially a steam-coal.

"The actual area of this coalfield covers a surface of approximately 3,200 acres, under which there are three seams of coal of a thickness of 4½, 5½, and 7 feet respectively, amounting to a total thickness of 17 feet, and taking the usual recognized custom of computation of 1,000 tons per acre per foot, which includes 40 per cent. loss of coal, gives a gross total of 54,400,000 tons recoverable coal.

"Inasmuch as there is no doubt as to the extent of the coalfield and quality of the coal, the question now to be considered is the opening-up of these mines on a profitable scale. I would recommend in the first instance that a plan of development be carried out to produce 1,500 tons per day, which will also entail the expense of constructing a wagon-road and railway from Telkwa to the mines to connect with the Grand Trunk system, a distance of approximately thirty-five miles.

"*General Comments.*—I have stated under the heading of 'Northern Area' that the contents of coal within the area is estimated by me at over 50,000,000 tons in three seams of 4½, 5½, and 7 feet in thickness, computed on 1,000 tons per foot-acre recovery. The following statement gives the contents arrived at on each seam separately:—

Seam.	Thickness.	Area.	Contents.	Quality.
	Feet.	Acres.	Tons.	
No. 1 upper	4½	3,200	14,400,000	Coking-coal.
No. 2 middle	5½	3,200	17,600,000	Coking-coal.
No. 3 lower	7	3,200	22,400,000	Steam-coal.
Partially developed tonnage			54,400,000	

"It must be distinctly understood that only two diamond-drill holes have been put down to the coal within the area, the approximate positions of which are shown on the surface map. The results obtained from the first one, 380 feet deep, has been certified to by two mining engineers, who agree as to the thickness of the three different seams and the quality of coal; the second hole, about 740 feet in depth, cut through the upper seam only, which was found to be similar to that encountered in the first drill-hole. The surface outcrops fully confirm the results of the drilling, which, together with the drill-work, prove the existence of the seams as continuous throughout the area. There are no evidences of local disturbances that would present difficulties in mining. The coal-measures are about 150 feet thick and the seams approximately 75 feet apart.

"In the foregoing paragraphs I have dealt with an estimated output of 1,500 tons per day. This does not mean that the output could not be greatly increased, but I think it better in the

first instance to work to this unit until the market is established for this amount of coal. It will be noted that the coal from the two upper seams will coke and the lower is non-coking, but is a good steam-coal.

"*Conclusion.*—In the event of my recommendations of development being carried out, and the railway constructed and a satisfactory arrangement made with the Grand Trunk Pacific Railway Company to operate the road, the colliery should be in shape to produce and market 1,500 tons of coal by January 1st, 1918, and by equipping another shaft the output can be increased to, say, 3,000 tons per day at a further outlay of say $300,000, including four miles of railway and sidings. This ought to be accomplished by January 1st, 1920.

"It has already been shown that, according to present market prices of coal on the Pacific Coast, this colliery working 1,500 tons per day should earn a profit of $2.12 per ton, or $3,123 per day. However, it is impossible to foretell the market conditions over a long period of years to permit me, with any degree of accuracy, to estimate an average sale price over, say, fifty years, but to be on the safe side, and with due consideration to conditions prevailing, this coal delivered at Prince Rupert would sell for at least $4 per ton f.o.b. The cost of mining, freight, weighing, bunkering, and standing charges are estimated at $2.81 per ton, and taking the average sales price at $4 per ton, a net profit of $1.19 can reasonably be expected over a long period."

Turner's report estimates that to develop and equip the property for a production of 1,500 tons a day and construct the required wagon-road and railway would take an expenditure of about $1,234,000. The syndicate controlling this coalfield says it is prepared to and is financially able to do this whenever a market for the coal is obtained. At the present time the market is not available, but, as has been pointed out previously, this conditions may be expected to change before long. A market for 1,000 tons a day of coal would be quite sufficient to warrant the opening-up of this field.

Lake Kathlyn Coal Property.

This property consists of ten coal leases near Lake Kathlyn owned or controlled by Frank X. Frank. The showings of coal are on the lower slope of Hudson Bay mountain and distant about five miles from Smithers, the Grand Trunk Pacific divisional point. The nearest point on the railway is the flag-station at Lake Kathlyn; from this point a wagon-road has been constructed to the camp, a distance of two miles, and the seams outcrop a few hundred feet above the camp. The property is nicely situated for economical working, but has not yet been developed to any great extent.

The formation exposed on this property is not the usual Skeena coal-bearing formation of the Skeena and Bulkley valleys. The rocks in which the coal occurs are slates, argillites, and sandstone which is nearly changed to quartzite. These rocks are a portion of the Hazelton formation, which formation forms the greater part of Hudson Bay mountain. Regional metamorphism has affected these rocks to a considerable degree, so that now they are considerably altered from their original condition as sediments. Since their deposition these rocks have been twisted and tilted considerably, and in this section are standing at an angle of from 40 to 70 degrees.

The coal-seams found in this formation are in part true coal and in part are bands of highly carbonaceous slate. The metamorphic action which has affected the rock formation as a whole is plainly shown in its effect on the bands of coal, which in places have been changed nearly into graphite. The coal-seams are enclosed usually in walls of slate, and as a rule show a band of coal in the centre, with alternating bands of slate and coal to the walls.

There are a number of seams exposed on the property which vary from 1 foot to 5 feet in thickness, but only a part of the seams consist of coal. The seams run up and down the mountain with a strike of S. 75° E. and dip at about 60 degrees to the north-east. These coal-seams look more like veins than ordinary seams of coal, as they stand up firmly and are enclosed in walls of fairly hard rock.

The first seam on which work has been done is at an elevation of 2,700 feet and is developed by a tunnel 40 feet long. This shows the seam to contain a width of 1 foot of coal and 2 feet graphitic material, and it is therefore of no commercial value.

One hundred feet above this a 50-foot tunnel has been driven on another parallel seam which shows from 2 to 4 feet of coal. Three samples were taken from this seam—No. 1 across 2½ feet at the face, excluding 4 inches of bone; No. 2 across 3½ feet, excluding 4 inches of bone.

at a point 10 feet in from the mouth of the tunnel; and No. 3 selected coal from the dump. The analyses of these samples are as follows:—

No.	Moisture.	V.C.M.	F.C.	Ash.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
1	4.8	5.2	73.2	16.8
2	9.9	12.2	61.2	16.7
3	9.3	7.3	67.4	16.0

This seam from which the samples were taken was the only one seen by the writer which was of sufficient size to be of possible importance, but it is claimed that there are, higher up the mountain, seams outcropping similar to or better than this one. Samples were submitted to the writer by Geo. H. Ballard from these upper seams which are said to be representative of the clean coal. The analyses of these samples are as follows:—

No.	Moisture.	V.C.M.	F.C.	Ash.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
1	13.9	9.7	64.5	11.9
2	13.5	8.9	60.9	16.7
3	14.3	8.3	72.3	5.1

In considering these analyses the most striking feature is the high percentage of moisture, which is unusual in a coal such as is indicated by the ratio of volatile matter and fixed carbon. Taking the average of the six samples analysed and recalculating the analysis free of ash, the resulting analysis is: Moisture, 12.8 per cent.; V.C.M., 9.9 per cent.; F.C., 77.3 per cent. By applying Dowling's Split Volatile ratio this coal is seen to have a numerical value on the scale of 4.6, which places it as a bituminous coal. It is evident, though, from the low volatile matter and high fixed carbon that the coal should really be classed as a semi-anthracite. The high moisture content affects the formula in Dowling's Split Volatile ratio so much as to render it not suitable for classifying this coal.

Coal Area on the Bowron River.

This coal area is situated east of Fort George and about fifteen miles from a point on the Grand Trunk Pacific Railway. The property has never been examined by any engineer of the Bureau of Mines, but was reported on by William Blakemore, C. F. J. Galloway, and James Ashworth.

The 1914 Annual Report of the Minister of Mines contains a synopsis of these reports, giving details of the seams, analyses, etc. Nothing further has been done with the property since that time. A. E. Hepburn, of Vancouver, has an interest in and is agent for the syndicate holding the coal leases.

At present the property is reached by trail, so that very little serious development can be undertaken until some better transportation is provided; a good wagon-road at least being required.

The property is distant some fifteen miles from the main line of the Grand Trunk Pacific, and before it could be placed on a productive basis a branch line of this distance would require to be built. This railway would be an inexpensive one to build, as there would be but little rock-work and the grade is very easy.

A market for the coal is expected from the Grand Trunk Pacific, Canadian Northern, and Pacific Great Eastern Railways—the first two of which are completed and in operation—and in addition a domestic market in the Cariboo district generally, especially the town of Fort George.

CARIBOO MINING DIVISION.

The Cariboo Mining Division occupies an important place in the history of mining in the Province. The great gold-rush to the Cariboo in the early sixties formed the commencement

of mining in British Columbia. These early placer-mining operations centred around the old town of Barkerville, where for some years the creeks yielded phenomenally rich pay. From two miles and a half of Williams creek and two miles of Lightning creek at least $30,000,000 of gold has been taken out and the end is not yet in sight. At the present time there are several large-scale hydraulic mines being worked, and also certain gravel areas are being tested with the view of putting in dredges.

The placer production of the Cariboo Division reached a maximum production about 1863; since then the annual output has gradually decreased, although fluctuating up and down. During the last ten years it has averaged about $225,000 a year.

As the rich diggings were worked out, many extensive plants have been put in to handle the large quantities of low-grade ground left behind by the old miners, but in many cases these have been failures, chiefly because of inefficient management. There is now sufficient indication to warrant the assumption that, before long, some of these abandoned properties will be profitably worked by means of dredges.

It is unnecessary in this report to enter into a detail description of this district, as this part of British Columbia has been reported on at intervals from 1860 onwards. In fact, the early reports of the Mines Department consisted almost entirely of a description of, and tabulation of returns from, the Cariboo District. The last detail report on the district as a whole was made by W. Fleet Robertson, Provincial Mineralogist, in 1902, but since that time the general progress of, and information about, the district is given in the annual reports of the Gold Commissioner. In 1913 Mr. Robertson spent a week in the Quesnel section examining a few of the placer properties.

At the end of the field season of 1914 the writer spent ten days visiting some of the placer mines at Barkerville and Stanley; some abandoned quartz properties were also looked at.*

Barkerville Sub-district.

The hydraulic placer mines in the vicinity of the old town of Barkerville made about the same production this year as in 1916. The production as a rule varies directly with the supply of water, and this year the water-supply averaged about the same as usual. A heavy snowfall during the previous winter provided a plentiful supply of water for the first part of the season, which was in part offset by a dry summer. The ground handled was of about the same grade as in former years.

Hopp Mines. The mines operated by John Hopp—viz., *Lowhee*, *Stouts Gulch*, and *Mosquito Creek* mines—were worked as usual, and from them comes the major portion of the production of the district. The *Stouts Gulch* mine was not worked as much as in former years, as it has been worked up to nearly the head of the gulch; the ground still remaining to be worked lies on benches and tributary gulches. *Mosquito Creek* again yielded some very rich ground; the water-supply on this mine is small, which prevents any large-scale operation. *Lowhee* mine was operated at full capacity throughout the season and made a good return, some of the ground being richer than usual.

Point Mine. This property, owned by Loo Gee Wing, of Vancouver, was worked during the season under Chinese management, and made about the same output as in former years.

Fountain Creek.

A placer deposit on Fountain creek has been prospected and worked to some extent during the last few years by J. F. Williams and J. Powell, of Stanley. The ground is held under a number of leases and is known as the Eureka Mining Company. Fountain creek is a tributary of Swift river, and the property is distant some eight to ten miles from Stanley in a south-easterly direction. A rough wagon-road extends half the distance, the remainder of the route being a trail.

The placer deposit on this creek which is being worked is an old channel of the stream, and some portions of it have been worked in a small way by hydraulicking with a limited head of water. These different workings may be considered as tests of the ground, and from the results attained Mr. Williams has arrived at the conclusion that the ground will run from 20 to 40 cents a yard.

* Annual Report of Minister of Mines, 1914.

There is a fair supply of water in Fountain creek and an unlimited supply could be obtained from Little Swift river. The grade is sufficient for hydraulicking, and generally conditions are good for working the property on a fairly large scale. Before going to the expense of putting in a costly system of ditches, flumes, penstock, pipe-line, etc., further testing of the ground may be required.

The existence of an old channel has been more or less proved by a drift-tunnel starting on the side of the creek and running into the hill. The ground is not deep where the small hydraulic pits have been started, being only from a few feet up to 25 feet in depth. The ground is free from large boulders. For the large-scale equipment and working of the property wagon-road transportation from Stanley would be required.

Swamp River.

Some placer prospecting was carried on during the season of 1917 on a tributary creek of Swamp river. In a letter to the Hon. the Minister of Mines dated January 3rd, 1918, J. A. McPherson, of Stanley, gives the information that Kinny & Reid, prospecting on a small creek entering Swamp river from the east, recovered from a bench of the creek a few ounces of quite coarse gold.

This part of the Barkerville Sub-district has not received much attention in the last few years, and probably has never been as thoroughly prospected as the better-known creeks.

Chisholm Creek.

Chisholm creek is a small stream that comes into Lightning creek at the town of Stanley. Work has been carried on here for some time past to prospect an old channel which lies to the south of the present creek-bed. The property is held by the Cariboo-Chisholm Creek Mining Company, consisting of three bench leases and two creek leases. J. A. McPherson is manager in charge of the work.

In the 1914 Annual Report the writer gave some notes on this property and detailed the work up to that time. Since then a tunnel has been driven into the channel; for 550 feet it goes through clay and then is in rock for 505 feet to the face. From the face an upraise was made for 40 feet, and by drifting 60 feet to the west the old channel was broken into.

On breaking into the channel the water-pressure was very great and some difficulty was experienced. Two openings had to be abandoned and timbered up. Pipes were driven into the gravel 10 to 12 feet, from which a steady flow of water was coming at the time the property was visited; by this means the pressure will be gradually reduced. A third opening was being carefully extended into the channel, but progress was slow. After extending this drift across the channel it is intended to continue the main drift ahead to cut the channel.

Nothing is known of the values contained in the gravel, other than that it is said that two test drill-holes put down from the surface showed workable pay values.

In addition to the drifting-work, the company for two years back has been hydraulicking in a small way the bed of Chisholm creek. This is a shallow deposit of gravel resting on clay. Sufficient "pay" was evidently found to warrant continuing the work and further mining will be done next season.

Proserpine Mountain.

Proserpine mountain is a low flat hill lying to the east of Barkerville, across Williams creek. Claims were staked here many years ago and some work done on them, all of them being later abandoned. About ten years ago Seymour Baker relocated some of these claims, and has since done a little work on some of the veins in an endeavour to find shoots of ore of commercial grade. In the 1914 Report of the Minister of Mines the writer described these claims (pages 65 and 66). Since that time but little further work has been done, and there is therefore nothing further of material importance to be reported.

A few years ago E. E. Armstrong started prospecting in this section, and finally located claims on Proserpine mountain, about three miles from Barkerville and to the east of Baker's claims. Mr. Armstrong spent a long time in tracing up indications of gold in the stream-gravels and panning the country far and wide, and now believes he has found the "mother-lode" of Proserpine mountain. It is to be hoped that his toil and optimistic faith will in the future be adequately rewarded.

Other claims adjoining Armstrong's were staked a year ago by Blair, Tregillus, and partners.

There are a number of large quartz veins exposed on these different claims on Proserpine mountain which have a general strike of N. 60° to 80° W. These veins vary from a few feet up to 30 feet in width, and in many places are made up of alternating bands of quartz and schist. The formation in which they occur is the Cariboo schists, consisting of black slates, shales, and schistose rocks, all of these are soft and often quite graphic.

These veins contain pyrite, arsenopyrite, and small amounts of galena associated with the quartz gangue. Generally, however, the ratio of total sulphides to quartz is quite low, and in many places the quartz is devoid of metallic minerals. The bands of slate and schist occurring in these veins carry pyrite in varying amounts, being as a rule as well mineralized as the quartz is. The galena, however, so far as was observed, is confined to the quartz.

Gold occurs in these veins, but in an irregular manner. Some of it may occur free in the quartz, but it is probable that most of it occurs in the pyrite and arsenopyrite. Near the surface the veins are partially oxidized, the iron sulphides being in part converted to limonite, thus liberating any gold contained therein and making it appear that the gold occurred free in the quartz.

The gold values are irregularly distributed, and sufficient development has not been done to determine whether the gold occurs in definite pay-shoots or not. Considerable sampling would be required to determine what portions of the veins carry gold. From the evidence available it does not seem probable that the veins as a whole carry high enough average gold content to pay to mine and mill (although this may later prove to be otherwise), but there may be considerable parts of the vein carrying sufficient gold to work at a profit. From the assay of several samples it is evident that the galena carries very little silver content.

Britisher. This claim is owned by Carey, Tregillus, and Blair. A surface cut 50 x 10 x 10 feet shows a large exposure of quartz and interbanded soft slate, which is apparently striking N. 75° W. (mag.) and dipping at 60 degrees to the north-east. The quartz carries bunches and bands of pyrite.

Three samples were taken in sections across the vein; the widths sampled being 4½ feet, 4 feet, and 5½ feet; these assayed respectively 0.7 oz., trace, and trace in gold. A selected sample from the foot-wall returned 1.64 oz. gold and 0.26 oz. silver to the ton. These results show that some of the vein carries appreciable gold values, and more extensive sampling may show that the values follow along the walls with a barren zone between.

Warspite. This claim is also owned by Carey, Tregillus, and Blair, and adjoins the *Britisher*. An open-cut 30 x 6 x 6 feet shows an irregular outcrop of quartz and slaty rock. The cut had water in it and had partly sloughed in, so that it was impossible to tell the width of the vein, true strike, etc. The dump shows plenty of quartz carrying pyrite and some galena.

A grab sample of the main dump assayed: Gold, 0.04 oz.; silver, 3.6 oz. A selected sample of the galena assayed: Gold, trace; silver, 0.3 oz.; lead, 30 per cent.

This vein apparently consists of stringers and bands of quartz occurring in schistose rock across a total width of about 20 feet.

Vimy Ridge. This claim and the *Anzac* are owned by Tregillus & Blair. The vein on this property is well defined, striking N. 85° W. (mag.), and from 4 to 6 feet wide. It carries a little arsenical iron and galena in a quartz gangue. Development consists of an open-cut 10 x 10 x 4 feet.

A sample taken across 4½ feet of the vein only returned traces of gold and silver, but from the general appearance of the quartz and associated minerals it might be expected that other samples would show some gold values.

Kitchener. An open-cut on this claim, 20 x 10 x 10 feet, shows a quartz vein in graphitic schistose rock, which is probably the same vein as is exposed on the *Vimy Ridge* claim. It is here from 6 to 10 feet in width and slightly broken up. A sample taken across 6 feet assayed: Gold, 0.06 oz.; silver, 20.5 oz. to the ton.

Independence. This claim is owned by E. E. Armstrong and is the most important of the claims recently staked on Proserpine mountain. After this claim was staked by Armstrong the others were located. There are two veins on the property, approximately parallel, and known as No. 1 and No. 2.

No. 1 vein is a large compound vein of banded quartz and schist, in one place reaching 30 feet in width, of which possibly two-thirds is quartz. Galena and pyrite occur in the quartz, but form a very small percentage of the total vein-filling. The vein has been prospected by several open-cuts and shallow shafts, which trace the vein for a few hundred feet on the surface. The values are scattered, but according to the owner much of the vein material, after crushing, pans well. To arrive at the average gold content of the whole vein or certain portions of it would require extensive and systematic sampling, which has not as yet been done. Some samples were taken by the writer which are sufficient to show that in places at least the quartz is gold-bearing. A sample across 5 feet near one wall returned a trace of gold. Another across 4 feet next to the last sample returned: Gold, 0.28 oz.; silver, 0.16 oz. Another across 1½ feet assayed: Gold, 0.82 oz.; silver, 0.1 oz.

The No. 2 vein is about the same size as No. 1 and similar in characteristics. It is developed by several open-cuts. On the surface the vein is considerably oxidized with development of limonite. A sample taken across 28 feet in one cut assayed: Gold, 0.8 oz. No other samples were taken for assays, but the quartz pans well in many places.

In the opinion of the writer these claims are worthy of serious investigation, as it is probable that at least some portions of the veins carry sufficient gold to pay to work. Small quantities of gold have been taken out from the oxidized quartz by Armstrong working with a rocker.

Hard Cash.

Three thousand feet from the *Independence* and 800 feet lower in the gulch occupied by Grouse creek, quartz-outcroppings have been staked by E. E. Armstrong. Two veins are exposed on the sides of the gulch which are supposed to be extensions of the veins on the *Independence* claim. These veins were known of many years ago and some old tunnel-workings were made on them.

The creek follows very closely the contact between the Cariboo schists and an igneous rock which is intrusive into the schists. The veins here are similar to those on Proserpine mountain, containing small quantities of pyrite and galena. It would seem, though, that at the time the old workings were made sufficient pay values were not found in the quartz. A selected sample from this locality taken by the writer returned on assay 1 oz. gold to the ton.

On the *Independence* claim a cabin camp has been constructed by Armstrong, the elevation of which is 5,600 feet.

The location of these claims is at the present time a long way from railroad transportation, and at first sight the development and working of them might be considered to be very expensive. It should be remembered, however, that the claims are connected to Barkerville by a good trail three miles in length, and that Barkerville is reached by a good road, over which auto transportation is used during a large part of the year. If development should prove that these veins or portions of them carried sufficient gold content to pay to work, then the ore would be milled on the ground. The present transportation is good enough to take in machinery and the final product of milling could be transported out.

A few samples of galena were taken to determine what silver values were contained in it; the following table shows the results:—

Name of Claim.	Gold.	Silver.	Lead.
	Oz.	Oz.	Per Cent.
Kitchener	0.32	18	56.0
Kitchener	0.02	29.5	70.0
Warspite	0.06	38.4	64.6
Warspite	Trace	0.3	30.0

It is apparent that the galena in this district does not carry high silver values, and, as the actual galena content of the veins is very small, the values in the ore accruing from silver and lead can be disregarded. Such galena, even if the pure mineral, from hand-sorting or mechanical concentration would not pay to ship when the high transportation costs are considered. At the present time, therefore, only the gold values need be considered.

Hardscrabble Creek.

A deposit of scheelite (tungsten ore) on Hardscrabble creek has been known of for several years, the first mention of it being in the Annual Report for 1904 in a report by Austin J. R. Atkin. Further mention of the occurrence is made in a "Report on the Tungsten Ores of Canada," by T. L. Walker, issued by the Mines Branch, Ottawa, in 1909.

These reports indicated that the deposit of scheelite, although undeveloped, was quite promising. The scheelite-bearing zone is said to be from 3 to 8 feet wide and to carry a fair percentage of scheelite throughout.

Since that time no further work has been done on the property until this summer (1917), when the old workings were cleaned out and put in shape for examination.

The property is controlled by J. A. Macpherson, of Stanley, and it is probable that further development will be carried out this summer. Tungsten ore is now in considerable demand and the market price is high. Ore containing 60 per cent. WO_3 (tungstic acid) is worth from $18 to $20 a unit.

The property has not been examined by the writer, but will be during the coming season.

Fraser River Sub-district.

Tertiary Gravel Company.

The old "Killam gravel-mine," situated at Cottonwood canyon, on the Fraser river, about eighteen miles above the town of Quesnel, was acquired in the summer of 1917 by a Chicago syndicate which is now incorporated as the Tertiary Gravel Company; S. J. Marsh effected the sale. The property was examined by Mr. Hamilton, engineer for the Chicago people, previous to the sale being made.

For many years past this gravel-deposit has been worked in a small way by Killam and his partners. The cemented gravel was mined, exposed to the weather for six months or longer, thus disintegrating it by loosening the cement, and then washed in sluice-boxes. This method was not successful in securing all the gold in the gravel, as the disintegration of the cement was only partial. No records are available of the value per ton or yard by this method of working, but the operations apparently paid in a small way. The company now owning the property was preparing during the fall to mine the gravel and treat it in a more modern way and also on a larger scale. No information is available yet as to the results attained.

This deposit of gold-bearing gravel lies on the east bank of the Fraser river and practically at the water's edge. The thickness of the deposit is considerable, but it is not known how much of it carries gold. For 20 feet up from bed-rock the gravel is so well cemented as to be virtually a conglomerate. Above this the gravel is freer and changing to clay at the surface. Mr. Marsh is of the opinion that the cemented gravel is of Tertiary age, but evidence in support of this theory is inconclusive.

So far as is proved by the present prospecting, gold in appreciable quantities is contained in the cemented gravel, from bed-rock upwards to a distance of 8 to 10 feet. The upper gravels are also said to contain some gold, but for the present attention will be centred on the lower gravels.

The company commenced operations by building a two-mile wagon-road connecting the property with the main wagon-road to Quesnel. A sawmill was erected, and lumber cut for buildings, flume, etc. A mill has been erected in which the gravel is to be treated, and the usual bunk-houses, office building, etc., were put up. At the time the property was visited in September construction-work was proceeding on the mill and the completion of the plant was expected in about a month.

The mill consists essentially of a jaw-crusher, ball-mill, and Pearce amalgamators, together with accessory bins, elevators, screens, etc. The cemented gravel will be partially crushed in the jaw-crusher and then goes to the ball-mill, where the pebbles and boulders in the gravel will be separated from the cementing matrix. The matrix thus becomes sand, while the boulders are hardly ground at all. The material from the ball-mill then will be screened, removing the boulders from the sand. The boulders will then be ejected as waste material, and the sand, which contains the gold, treated in the Pearce amalgamators for the recovery of the gold. It is believed the mill was in operation towards the end of the year, but no information as to results has been received.

This gravel-deposit has been developed by a tunnel with lateral drifts from it, and the workings total several hundred feet. The areal extent of the deposit is considerable, but only a small part of it has yet been tested for gold values.

The following information relative to the affairs of this company was contained in a letter dated February 5th, 1918, received from Donald D. Fraser, secretary, Tertiary Mining Company, Limited:—

"The present company began work on the property last May. All the work done up to October was in construction. During this time a boarding-house, an office building, and a mill building were constructed. The road between the mine and the mouth of the Cottonwood river, which you inspected last fall, was also built at this time.

"During the last three months of the year 1917 we started to develop the mine. Considerable work was done through waste and lean ground, so that any figures that I could give you concerning metal content would be misleading. The gravel carrying any values was run through the mill for test purposes. Probably not over 1,000 tons was treated.

"We are now beginning to get the mine in shape, so that we hope to be able to give you definite figures for the year 1918."

Government Creek.

A number of placer leases were taken up a few years ago on Government creek by Dougald Cameron and partners. This creek is a tributary of Hixon creek, which latter joins the Fraser about thirty-five miles south of Fort George. Gasolene-launches run regularly on the Fraser river between Fort George and Quesnel, so this section is easily reached; the landing-place on the river is Woodpecker Island Landing.

From the landing a rough wagon-road extends nearly to the placer property on Government creek, a distance of about eight miles. Two or three ranches have been taken up in the district. On the placer property a cabin has been erected by Cameron.

This property consists of eight creek leases, each one-half mile in length, extending up-stream from a point two miles above the junction of Hixon and Government creeks. The ground along the creek and for some distance on either side is from 5 to 20 feet deep to bed-rock; beyond this, gravel and clay banks rise from 100 to 150 feet. The general level of the country is plateau-like, into which the creek-valley has been cut 100 to 150 feet.

The testing of the ground which has been carried out consists of test-pits, ground-sluicing, rocking, and panning. Nearly 100 test-pits have been dug, varying in depth from a few feet to 15 feet, some of which reached bed-rock and some only went part way. From the results of panning and sluicing the material from these test-pits, Mr. Cameron has reached the conclusion that the ground carries from 15 to 40 cents a yard. It cannot be said that this sampling of the ground is conclusive and some systematic testing would be required to check these figures. The gold is in part coarse, nuggets worth from 50 cents to $4 being frequently found; one nugget was recovered worth $25.00, at a value of $17 an ounce. Part of the gold is fine, but very little flour gold is present. From a brief inspection of some of the gold recovered from these workings it would seem that it had not travelled very far and was of local origin.

Government creek carries from 750 to 2,000 feet of water, according to the season of the year, but during the spring and summer at least 1,000 inches should be obtainable. By fluming and ditching the water about one mile a head of 75 feet could be secured and a greater head could be had by a longer ditch-line.

At one point the creek goes through a small canyon which has a considerable grade, and by starting here there would be sufficient fall to handle the gravel above by hydraulicking. Generally the property should prove capable of hydraulicking at a profit provided the values to the yard are as claimed.

The country-rock exposed in places along and on the sides of the creek consists of soft slates and schists, practically identical with the Cariboo schists as exposed in the vicinity of Barkerville. A number of veins, stringers, and bunches of quartz occur in this formation, with strikes following approximately the line of strike of the slates and schists. These quartz veins in places consist of stringers of quartz spaced across a width of 30 to 40 feet of slate; in other places bands of quartz up to 8 feet in width occur. Generally the quartz-outcroppings are irregular, broken, and twisted, but some of the masses of quartz are of considerable size. The only mineralization in the quartz is with iron, which occurs as limonite. Some iron existed in the quartz as sulphide and this has been oxidized on the surface.

A number of samples were taken from a dozen different outcrops which were assayed for gold and silver, but the results showed that only traces of the precious metals were present. While no place has been noted yet where these veins carry appreciable gold values, it is possible that the placer gold in the gravel had its origin in the upper parts of these veins, removed by erosion and the gold content concentrated in the stream-gravels.

QUESNEL MINING DIVISION.

Quesnel River.

Very little information is available about the mining operations in this section, as it was not visited by the writer during the year. During the last few years placer gold to the value of $20,000 to $40,000 a year has been produced. No lode-mining is carried on in this section, although reports of mineral showings are heard from time to time. In former years a considerable placer-gold production was made from this section but in recent years the larger operating companies have done but little. Small-scale individual placer-miners are at work each season and now make most of the annual output, which this year amounted to $15,000.

The Quesnel Hydraulic Mining Company, which a few years ago constructed a very elaborate and expensive water system to handle ground on Twenty-mile creek, Quesnel river, continued operations on a small scale. The work carried out in 1912 and 1914 on this property showed that the hydraulic plant worked excellently, but that the gravel handled contained but little gold. Since 1914 the company has been engaged in carefully prospecting its holdings in order to determine where pay-ground is situated, and this prospecting was continued during the past season. The manager says this work is turning out satisfactorily.

Alexandria.

Rainbow Group.

Mineral claims have been staked by Joseph Briand and partners near Alexandria, a post-office on the Cariboo road, distant thirty-five miles south of Quesnel. These claims are situated ten miles easterly from Rhodes ranch, on the Cariboo road. Rolling country characterizes this district, which viewed in a general way is flat, but is given local relief by the rolling hills and irregular gullies and stream courses. The elevation varies from 2,500 to 3,500 feet at the claims, which are situated on a flat-topped hill rising slightly above the general level of the country. This is a grazing country with grass plentiful; groves of jack-pine are scattered here and there over the district. Rock-exposures are not plentiful, as a mantle of soil and vegetation as a rule covers the country.

On the claims the rock formation exposed is granite and no other types of rock were noted. The showings consist of several large quartz veins which are sparingly mineralized with copper minerals. These veins, which are from 5 to 20 feet wide, are somewhat irregular and in places appear to be masses of quartz rather than true veins. The quartz is milky and as a rule barren-looking. It is quite evident that the quartz was first deposited and that later fracturing allowed the circulation of mineral-laden circulations, from which the copper minerals were deposited, partly filling small fractures and partly by replacement of the quartz. The total amount of copper minerals in proportion to the quartz is small; too small, in fact, to be of commercial importance. Very little development has so far been done, and it is therefore possible that further work would find larger bodies of the copper minerals; conversely, the limited mineralization now apparent in the quartz may not be continuous and may disappear with further work. The copper minerals occurring are chalcopyrite, bornite, cuprite, malachite, and azurite. The occurrence of cuprite is interesting as this mineral is decidedly rare, at least in British Columbia. In this deposit chalcopyrite was the primary mineral and the other higher sulphides, oxide, and carbonates are due to secondary action, and very probably represent a surface condition which would disappear at a little depth. Some very good specimens of cuprite, which is an oxide of copper, were obtained; the total amount of the mineral present in the showings is, however, quite small.

As it was evident that the copper minerals in the quartz did not occur in sufficient quantity to make the property of commercial value as a copper-ore producer, careful samples were therefore taken to see if gold in appreciable quantities was contained in the quartz. Ten samples in all were taken across widths varying from 1 to 6 feet, and in addition samples from small dumps; the assays on these show only traces of gold and silver. Samples taken, including the best showings of copper minerals, ran from 5 to 6.3 per cent. copper; the latter result was

obtained from an average sample of a small dump of selected ore. A selected specimen of copper ore returned 26.7 per cent. copper, a trace in gold, and 1 oz silver to the ton; this was the highest silver assay obtained. It is evident, therefore, that gold and silver values in the deposit are negligible and the only thing to be considered is the copper. And as pointed out before, the copper minerals are too disseminated to make the vein-matter valuable as a copper ore. The remote location of these claims from railway transportation would in any case make the mining of copper ore impracticable at the present time.

Development consists of open-cuts, the largest of which is 14 feet long by 6 feet wide by 8 feet deep.

While these particular showings are not promising, they indicate that there are large quartz veins in this district containing at least some valuable minerals. This section of country has never been prospected, and as an indication of a possible mineralized zone these claims are significant and should be noted. More extended prospecting may result in finding more highly mineralized veins, or quartz veins carrying appreciable gold values. There is a large area of country between here and Quesnel Forks which is practically virgin ground for prospecting.

TIMOTHY MOUNTAIN.

A few years ago a number of claims were staked on Timothy mountain by Ryan, Foster, and others. This mountain is distant about thirty miles in a north-easterly direction from Lac la Hache Post-office, which latter is 103 miles northerly from Ashcroft, on the Cariboo road. The present route into the claims from Lac la Hache is a roundabout one, consisting of a rough wagon-road for thirty miles and then fifteen miles of trail. A direct route would shorten the distance ten to fifteen miles.

Showings of copper ore on the mountain were first staked and some development was carried out, principally by Ryan. During 1917 exposures of molybdenite were discovered by Ryan, and claims were staked covering them. An interesting occurrence of peridots also is found here, which will be described later.

The main body of Timothy mountain is formed of a coarse-grained holocrystalline granodiorite. Part of the flat top of the mountain is, however, covered by volcanic rock which is later in age than the underlying granodiorite. One well-defined contact of the two rocks was seen, and from this it is evident that the volcanic rock was laid down on the eroded surface of the granodiorite. The volcanic rock has slightly baked the granodiorite near the contact, but the effect has been very little.

The volcanic rock is predominantly basic in composition, although showing some variations. It is mainly an ash rock, but would appear to be in part a true lava rock. From examination of hand specimens the rock might be classified as approximating the composition of an augite andesite to a diabase. The outstanding feature of this volcanic formation is the number of volcanic bombs contained in it. These bombs are so numerous in some places as to constitute over 50 per cent. of the total rock-matter. They vary in size from an inch in diameter up to at least three 3 feet, and are of many shapes, but as a rule tending to an ovoid form.

The filling of these bombs is chrysolite; some of the bombs may carry other minerals, but none were noted. This chrysolite in different bombs varies considerably in chemical composition; the most common form is dark bottle-green in colour, crystalline, but with the crystal forms not well developed. In many cases the iron in the chrysolite is sufficiently oxidized to cause the mineral to assume various colours, brown, dark blue, and purple shades being noticed; an irridescent sheen is also frequent.

The granodiorite formation is cut by a well-defined and approximately parallel series of mica-lamprophyre dykes. Diorite dykes also occur in places cutting the granodiorite. So far as was observed, neither of these dyke systems cut the volcanic rock.

The copper-showings which have been slightly developed consist of veins in the granodiorite which are in reality sheeted zones of varying widths. These zones consist of narrow stringers of quartz spaced across a total width of 15 to 20 feet. The rock lying between the quartz stringers is granodiorite partially altered by silicification and pyritization.

The quartz stringers carry metallic minerals consisting, in their relative order of abundance, of pyrite, chalcopyrite, arsenopyrite, pyrrhotite, galena, and zinc-blende; but the total percentage of these minerals to that of quartz is quite small. The only mineral which has to any extent entered and replaced the granodiorite between the quartz stringers is pyrite.

The surface of the veins are always partially oxidized with a plentiful distribution of limonite and copper carbonates, which make the croppings somewhat impressive to the eye. The line of strike of the veins is nearly always a depression due to erosion below the level of the surrounding granodiorite on account of the softness of the oxidized upper portion of the vein. The veins distinctly cut through the mica-lamprophyre dykes.

The introduction of pyrite was the most important and apparently first mineralization of the veins; the chalcopyrite came later, either accompanied or followed by the small amounts of galena, etc.

It is apparent on inspection that the total amount of chalcopyrite in the veins is much too small to admit of the veins being mined at a profit for the copper content. It was considered possible that the mineralized parts of the vein might carry gold and silver values, and to determine this a number of samples were taken. These samples were taken across widths of from 3 to 6 feet and were intended to be representative; on assay they only returned traces of gold and silver.

The conclusion must be arrived at, therefore, that at the present time these claims are not of economic value. The veins may somewhere contain appreciable shoots of chalcopyrite, but considering the remote location of the claims it is unlikely that further work will be carried on for the present.

The development consists of open-cuts, shallow shafts, and short tunnels on several different veins, but further details are not of importance.

Molybdenite.

The showings of molybdenite are situated at the other end of Timothy mountain from the copper claims, and distant a mile or more to the east. The exposures are in the timber not far below timber-line. Two claims known as the *Tipperary* and *Molyb* have been staked in the names of W. J. Ryan and John Foster.

The formation exposed here is granodiorite, and in it occurs the molybdenite. A small stream known as McDonald creek cuts down into the granodiorite, exposing it for some distance along the sides of the creek. Molybdenite occurs here in a scattered and irregular manner throughout the granitic rock. This molybdenite is disseminated along joint planes, fractures, and slip planes, but does not occur in any definite ore-body or vein. The main jointing of the granodiorite is along north-and-south lines and molybdenite occurs in thin scales or plates along these joints. No development has been done, and it is as yet hard to form an idea what percentage of molybdenite the granitic rock as a whole carries. It is evident that there is a considerable quantity of rock more or less mineralized with molybdenite, but it is clear that the average would be quite low grade. With development it is quite possible there may be shown to be a considerable tonnage of ore here carrying from 2 to 4 per cent. molybdenite.

Four samples were taken which give some idea of the molybdenite content; the following table shows the results:—

Description.	Molybdenite (MoS_2). Per Cent.
Across 5 feet at good-looking place	4.0
Grab sample from open-cut 100 yards west of creek	1.6
Across 7 feet	3.2
Roughly selected ore	9.2

On the eastern side of McDonald creek, and up the creek a short distance from the low-grade molybdenite showings, the granodiorite formation is exposed by upturned trees and other natural exposures. On one of these a cut 4 x 4 feet has been made which shows a quartz vein 2 to 4 feet wide. In about the centre of this vein there is a stringer of pure molybdenite 2 inches wide which is continuous as far as it could be seen. Smaller stringers from ⅛ to ½ inch in width parallel the main one in the centre. Several other quartz-seams containing narrow stringers of molybdenite were also observed.

The surface wash and trees cover the formation nearly everywhere, but sufficient could be seen to indicate that these different showings of molybdenite are worthy of serious prospecting. During the fall some of this pure molybdenite was mined by Mr. Ryan, and a shipment of 800 lb. was packed out to Lac la Hache and sent to Ottawa.

So far as was observed, no other metallic minerals occur with the molybdenite in this locality, and it would therefore be free from impurities. Some pyrite may be associated with it in places.

This locality is at present far removed from a railway, but if development should show a considerable tonnage of molybdenite ore, a mill could be erected and transportation of the concentrates arranged.

Peridots.

"Peridot," or "evening emerald," is the name applied to a yellowish-green transparent form of the mineral chrysolite, which, when cut and polished, forms a semi-precious gem. Large grains or crystals without flaws are valuable gem material. Chrysolite is a silicate of iron and magnesia and is of fairly common occurrence in nature; it occurs usually in granular masses and disseminated grains, while the crystal form known as peridot is comparatively rare.

The occurrence of an andesitic ash rock on Timothy mountain containing volcanic bombs filled with chrysolite has already been described (*see* preceding pages). In some of these bombs well-developed crystals occur which are peridot; these occur in masses of crystals and also as single crystals amongst fine-grained chrysolite.

These peridots had attracted the attention of Mr. Ryan while he was developing his mineral claims on the mountain. He selected a number of these stones and sent them to Tiffany & Co., New York, for expert examination as jewels. Tiffany's report was that the specimens sent were of a remarkably good colour, but that they were more or less flawed and therefore of but slight value as gem material. In size these peridots vary from $^1/_{16}$ inch up to about 1 inch in length. Elongated crystals are most common, but square shapes are also found.

The writer had only a short time to spend examining this occurrence of peridots, but from what was seen it is evident that these stones occur here in considerable quantities. The volcanic rock contains a large percentage of the chrysolite bombs, and crystals of peridot are numerous in some of the bombs.

It is quite possible that on further search crystals which are not flawed may be found which would be valuable. Considerable interest has been shown over this discovery of peridots, several inquiries having been made about the matter to the Mines Department. There would seem to be a considerable demand in the jewel trade for peridots as gem material. Further investigation of the occurrence will be made during the coming summer.

CARIBOO DISTRICT.

CARIBOO MINING DIVISION.

REPORT BY C. W. GRAIN, GOLD COMMISSIONER.

I have the honour to submit herewith my annual report on the progress of the mining industry in the Cariboo Mining Division for the year ending December 31st, 1917.

I regret to have to state that the past season has undoubtedly been the quietest in the history of the district. A very small amount of new ground has been taken up and comparatively very little of that worked, and many of the old properties have been unworked.

Last winter brought an exceptionally heavy snowfall, which, being augmented by wet summer, made an ideal water season, and one could only regret that owing to the small number of mines working, such a poor use was made of it.

STOUTS GULCH.

The property on this creek owned by John Hopp was worked as usual and a good season's piping was put in. As stated in last year's report, the plant was moved down-stream, considerably nearer the mouth of the gulch, and pits were opened on each side of the old workings; considerable of the bench ground on either side of the creek was worked with encouraging results, the last clean-up of the season being very satisfactory.

LOWHEE CREEK.

On this creek is situated the largest of Mr. Hopp's mines. A very good season's piping was used to great advantage, and whilst considerable old workings were encountered, some very good ground was struck, and on the whole the amount of gold recovered was pretty well up to average.

MOSQUITO CREEK.

On this creek another of Mr. Hopp's mines is located. A very fair water season for this mine was experienced, the work consisting chiefly of working off some of the top benches on the east side of the creek, some of them being very rich; thus the amount of gold recovered at this mine was somewhat better than usual. It is a great pity that more water is not available for this mine.

SLOUGH CREEK.

This creek is now practically given over to the Chinese, there being three Chinese outfits working thereon—two more or less in a small way, and the third, the Point Hydraulic Mining Company, working on a fairly extensive plan. This year this company was somewhat handicapped by having to do without the very able help of Joseph Wendle as manager, who has run this mine for several years, and I gather that this season the output was hardly up to average.

JACK-OF-CLUBS CREEK.

On this creek, from which in old days a considerable amount of gold was taken, two or three men have been working during the past season and have done a vast amount of work. The work done by one John McDougall, single-handed, was really amazing; he has sunk a two-compartment shaft for a depth of over 90 feet, and as he was badly troubled with water he had to resort to the process of puddling it. He has also built an 18-foot overshot wheel and enclosed same in a house 50 x 25 feet and 25 feet high; he has also built various other buildings, and has got out a large amount of mine-timbers and lagging. One can only hope that this man will find good "pay" after his strenuous labours.

WILLIAMS CREEK.

Very little work was done on this famous old creek, the proposed dredging scheme not yet having materialized. A certain amount of work, however, was carried out by Mason & Joule on the old *1st of May* property, but as considerable old working and waste ground had to be removed the results were not very satisfactory.

GROUSE CREEK.

On this creek practically no work was carried on; the old Waverly Company, the lessees of the first lease granted in the district, again not working.

EIGHT-MILE LAKE.

The Thistle Mining Company this year again carried on no operations; however, a certain amount of work was carried on by R. Rees with a small staff on his two leases in that vicinity.

LIGHTNING CREEK.

The Lightning Creek Hydraulic Mining Company carried on operations with a small staff, but I have not been able to gather with what results.

On the upper benches, in the vicinity of Perkins gulch, Sparkes & Felker worked on their leases during the duration of the water season, and, as I gather, with better results than heretofore.

At the lower end of this creek, on the property of the Lightning Creek Gold Gravels and Drainage Company, work again started up in October. At the present time I am unable to learn just exactly what is being done.

CHISHOLM CREEK.

The Cariboo-Chisholm Creek Mining Company worked both its hydraulic and deep ground with a considerable staff. The manager and one of the chief shareholders, John A. Macpherson, has kindly supplied the following report:—

"In response to your request, I beg to report as follows:—

"In the early part of the spring of 1917 we cross-sectioned the surface gravels, putting down fifteen holes, using a Keystone drill; during the hydraulic season we widened out an open-cut and opened up a pit. We are now in shape for, and intend to install, an up-to-date hydraulic plant.

"We have successfully opened up the channel-gravels, and are now at this date just about finished with a crosscut drive running from rim to rim.

"Towards the west rim we lost the bed-rock, the channel at this point conforming to a gutter; the drain-tunnel being on a lower level than the crosscut, it is now our intention to drive the drain-tunnel about 75 feet farther and tap this gutter.

"In opening up the ground we first raised up from the drain-tunnel into the east rim and drifted out in the rock, from the top of the upraise to the channel, tapping it and along the channel for a distance of 150 feet; at intervals we again tapped the channel at three other places, making in all four openings through the rim-rock into the channel-gravels. This work drained and took the pressure off the water, so that later on, and at the lower level, we experienced no trouble in opening up the channel and running this crosscut."

FRASER RIVER.

On the Fraser river, in the vicinity of the Cottonwood canyon, a company by the name of the Tertiary Mining Company has taken over the leases owned and worked by Dom Killam for a number of years. This appears to be a cemented-gravel proposition. I should judge it is of very much the same formation as that worked by the late J. B. Hobson on the Horsefly River. Powder had to be used all the time to move the ground.

Mr. Killam, who only worked in a small way, used to get out this cemented gravel and let the weather disintegrate same, and then in the summer put it through a sluice-box, and I believe obtained very good results from this primitive way of working the ground.

The present company has installed some kind of crushing plant, but as yet have hardly got things into working shape.

Donald D. Fraser, the present manager, has kindly supplied the following report:—

"I beg to submit the following report covering the operations of the Tertiary Mining Company, Limited, for the year 1917 on its cement-gravel properties near the mouth of the Cottonwood River:—

"Work was begun by the present company during the month of May. Up until October the work was practically all construction. During this time a sawmill was operated and lumber

cut for the necessary buildings. A two-story bunk-house, an office, and a mill building were built. A road connecting the mine with the mouth of the Cottonwood river was also constructed during these months.

"The property had previously been worked as a large stope. At the time the present company began operations this stope was nearly filled with rock which had caved from the roof. To get into the pay-ground it was necessary to put tunnels around the old workings. The driving of these tunnels consumed the remaining portion of the year. Much of this work was of necessity put through lean ground, so that the returns were comparatively small. With the beginning of the new year, we are, however, in a position to begin systematically to develop the mine.

"The ore leaving the mine was hoisted over a trestle to the top of the mill and dumped into the mill-bin. From the bin the ore fell into a ball-mill and the cement gravel broken up. The fine gravel was then passed over an amalgamator.

"During the last three months of the year 1917 about 1,000 tons was treated in this manner for test purposes."

Quartz-mining.

As mentioned in last year's report, lode-mining has again received a certain amount of attention in this vicinity—namely, as regards Proserpine mountain, situated about three miles from Barkerville; there are now in all some twenty claims located on this mountain. During the past season a certain amount of work was carried on, as certificates of work were taken out in connection with seven of these claims.

However, I have thought it wiser to refrain from making a report in connection with any of them, as J. D. Galloway, District Mining Engineer, visited sundry of these claims last fall, and naturally he is very much better qualified to report thereon than I am; in fact, it would be presumption on my part to now do so.

Office Statistics—Cariboo Mining Division.

Free miners' certificates (individual)	157
Free miners' certificates (company)	6
Free miners' certificates (special)	1
Placer claims recorded	5
Placer claims rerecorded	23
Mineral claims recorded	86
Certificates of work issued	57
Leases granted	10
Leaves of absence granted	18
Conveyances and other documents recorded	61

Revenue.

Free miners' certificates	$1,540 50
Mining receipts	6,655 15
Leaves of absence	45 00
Water rights revenue	326 05
Firearms licences	120 00
Miscellaneous receipts	7 75
Poll-tax	265 00
Total	$8,959 45

QUESNEL MINING DIVISION.

REPORT BY R. M. McGUSTY, ACTING MINING RECORDER.

I have the honour to submit herewith my report on mining operations in the Quesnel Mining Division of the Cariboo District for the year ending December 31st, 1917.

The output of gold reported for the year 1917 was less than the preceding year; the chief causes for this decrease are accounted for through shortage of labour (very many of the miners having enlisted for overseas service with the Canadian Expeditionary Forces) and the continued lack of cheap transportation.

In the Keithley Creek section the *Kitchener* mine, operated by Harrison & Worth, continued active, but only a very small crew was employed; consequently results have been proportionately less than the previous year.

A certain amount of prospecting has been carried out on Harvey creek.

On Twenty-mile creek the Quesnel Hydraulic Gold Mining and Development Company employed a large crew, but no authentic report has been furnished me as to results obtained; however, it is reported that they intend resuming operations next season.

In the Harpers Camp section, beyond the fact that a number of applications for mining leases have been made, there is nothing of note to report.

In the Timothy Mountain section, where a considerable amount of development-work has been done during the past three years on the group of claims owned by W. J. Ryan *et al.*, active work has been carried on this year. Molybdenum has been found in quantity and a sample shipment of 850 lb. made, but no advices have as yet been received as to the grade of this. These claims are distant by the old trail from the Cariboo road approximately fifty-five miles, but a new trail has been made which will reduce the distance about fifteen miles; however, considering the elevation of these claims, it is possible that an aerial tramway from the claims to somewhere in the vicinity of Anderson's cabin (whence there is a good trail to the main road) will be found to be the most satisfactory method of handling the output.

OFFICE STATISTICS—QUESNEL MINING DIVISION.

Free miners' certificates	115
Mineral claims recorded	29
Certificates of work	17
Placer claims recorded	4
Placer claims rerecorded	13

OMINECA MINING DIVISION.

REPORT BY STEPHEN H. HOSKINS, GOLD COMMISSIONER. (OFFICE AT HAZELTON.)

I have the honour to forward herewith office statistics for the Omineca Mining Division for the year 1917. As an official Resident Mining Engineer has been present in this district throughout the season, and who will undoubtedly have visited all the properties which are undergoing systematic development, I am refraining from reporting, as in the past, *in extenso*, feeling that a person who has scientific knowledge and first-hand information is far more able to do justice to the industry which this rich district deserves.

There is no doubt that, although lode-mining in this district did not create the great excitement in the year 1917 as had been anticipated, the industry made great progress during that period, and is gradually but very quietly assuming a permanent aspect, as the older properties which are in a more advanced stage of development are acquiring and installing up-to-date machinery, together with concentrating plants, properties which for some years have been practically lying idle and in abeyance owing to their ores being unable to stand high freight rates, together with cost of treatment, are now being sought after, some of which will be placed on a shipping basis within the next few months.

There has not been a great deal of activity in placer-mining in this Division during the past season. None of the older leases received any attention, but this must be explained by the scarcity of capital, as all available money in this present day is required for war purposes.

As will be noted in the statistics given below, eight placer-mining leases were applied for in this Division, four of which were granted and four are still pending decision.

The possibilities of remunerative gold-dredging operations on the Ingenika river are now attracting attention. A few individual miners were at work all the season on McConnell creek, a tributary of the Ingenika, but with indifferent success owing to lack of sufficient water on account of the dryness of the season.

It is satisfactory to observe that revenue derived from mining sources in this Division is again increasing, it being for the year 1917 almost $2,500 in excess of the revenue derived from the same source in the year 1916.

Office Statistics—Omineca Mining Division.

Free miners' certificates issued (ordinary)	617
Free miners' certificates issued (company)	9
Free miners' certificates issued (special)	4
Mineral claims recorded and issued	333
Placer claims recorded and issued	15
Certificates of work recorded and issued	774
Bills of sale and other mining documents	239
Powers of attorney recorded	42
Mining documents filed	56
Certificates of improvements recorded and issued	12
Crown grants of mineral claims	12
Applications for placer-mining leases (Omineca Division, 8; Peace River Division, 35)	43
Placer-mining leases granted (Omineca Division, 4; Peace River Division, 13)	17

Revenue.

Free miners' certificates	$ 3,372 25
Mining receipts, general	11,421 25
Total	$14,793 50

PEACE RIVER MINING DIVISION.

Report by Stephen H. Hoskins, Gold Commissioner.

I have the honour to submit a report for the Peace River Mining Division for the year ending December 31st, 1917.

During the past summer the entire length of the Peace river was staked for a distance of seventy-five miles as dredging leases, and a company of miners is now engaged in taking in machinery for the adequate development of the ground.

Other applications for leases were received, but are still in abeyance. A busy season for the Peace river is predicted for the year 1918.

A few prospectors were working on the bars of the Peace river, but it is claimed, owing to the scarcity of water, very little of real value was accomplished.

I regret that the statistics of the Mining Recorder's office are not available.

EASTERN DISTRICT (No. 5).

REPORT BY A. G. LANGLEY, RESIDENT ENGINEER.

This district includes the following Mining Divisions: Golden, Windermere, Fort Steele, Revelstoke, Lardeau, Ainsworth, Slocan, Slocan City, Trout Lake, Nelson, Arrow Lake, and Trail Creek. During the year the mining activity throughout the various districts compares very favourably with last year, which was a banner year in mining for British Columbia.

Regarding the value of the production of silver, lead, and zinc for this district, from the available information at hand it also compares very favourably with that of last year, in spite of industrial troubles and the decrease in the demand for lead for munition purposes.

However, more zinc was produced by the electrolytic plant at Trail than in any previous year. The year's zinc production at this plant is estimated at 10,000 tons, representing a value of $3,000,000. The lead production for the district, although not as great as the previous year, shows an increase in value; the same applies to the silver production.

There has been little activity in the gold-mines, on account of economic conditions not being favourable at the present time for the mining of this metal, which has remained the same in price, while the cost of labour and supplies have increased. However, the gold production would have been much greater had it not been for industrial troubles, which curtailed the output of the Rossland mines to about one-fourth of the normal amount.

After many years of comparative inactivity, the high prices of metals has again attracted attention of mining men to the district, which is the leading producer in Canada of silver-lead-zinc ores. The result has been that many old properties, which could not be worked in the old days at a profit on account of low prices of silver, lead, and zinc which was of little commercial value, are now being reopened with satisfactory results, and should market conditions remain favourable we will see many more new shippers in the course of the next few years. Further, the improved methods of mineral separation by the flotation process offers additional encouragement to the mining of the more complex silver-lead ores, and has done a great deal towards enhancing the value of such properties.

With few exceptions the mines in this district can be worked by adit or crosscut tunnels, doing away with expensive hoisting and pumping equipment; they are within reasonable distance of transportation facilities, their ores can be treated at near-by smelters, and water-power is generally available, as is also timber for mining and fuel purposes; in fact, general conditions are favourable for the economical mining and handling of the ore.

Regarding the field-work this year, the number of applications the Department of Mines had for assistance in the building of roads and trails necessitated hurried trips, which were made more with a view of determining whether assistance was warranted by the general conditions than of making extensive examinations necessary for writing more comprehensive reports.

GOLDEN MINING DIVISION.

THE MIDDLE FORK OF THE SPILLIMACHEEN.

The present means of access to properties near and beyond Spruce Tree camp, which is twenty-two miles and a half from Carbonate Landing, is by a winding trail which crosses two divides before finally arriving at the Middle fork. The first divide is between the Columbia river and the Spillimacheen river, and the second between the last-mentioned river and the Middle fork.

Some twenty-two years ago, when there was quite an influx of mining men to this district, numerous claims were staked on the Middle fork, notably the *Bobbie Burns* group, the *International* group, both of which are gold properties, and the Carbonate Mountain claims, which were silver-lead properties. At this time the trail down the Middle fork connected with a sleigh-road to Well's Landing, at the summit of the divide between the Middle fork and the Spillimacheen. This road is now grown over. It would appear from the general contour of the country that the best location for a road to tap the properties on the Middle fork would have been down this fork and the main river to Spillimacheen Landing.

The properties referred to above have lain idle for a number of years; in this connection the following information obtained from the Provincial Mineralogist's report of 1898 may be of interest: The formation at the *International* and *Bobbie Burns* groups is composed of slates and shales cut by large quartz ledges, with a secondary series of smaller cross-course veins, which are more highly mineralized than the main ledges. The mineralization consists of iron pyrites, a little galena, and some arsenical pyrites. Gold was found to occur free near the surface. Below surface oxidation the gold occurs in sulphides.

Tarheel Group.

A company called the Tarheel Copper Company, Limited, has been formed by C. J. Lincke, of Golden, for the purpose of acquiring and mining a group of six claims, which are situated on the Middle fork of the Spillimacheen river, at a distance of twenty-three miles from Carbonate Landing, on the Columbia river. C. J. Lincke is managing director and H. G. Lockwood, of Golden, is secretary-treasurer. The lowest claims in the group were exploited many years ago, and there still remains an old cabin on the property. The elevation of the workings is 6,200 feet, or 1,200 feet above Spruce Tree camp, on the Middle fork.

The work done some years ago consists of approximately 120 feet of tunnelling on a strong, well-defined quartz vein, which can be traced for some distance on the surface. The ore is chalcopyrite associated with iron pyrites in a quartz gangue. So far the development-work has only proved the ore to exist in pockets in the vein, and no bodies which could be considered of commercial importance have yet been opened up.

The country-rock is composed of schists and laminated slates, having a dip of 55 degrees and a north-westerly strike. The strike and dip of the vein is almost identical with that of the strata. The ledge-matter exposed for a short distance above the tunnel, consisting of intercalating bands of quartz and schists, carries copper-stains for over a width of 16 feet.

The *Rainbow* claim is situated above the other claims near the upper end of a basin at an elevation of 7,800 feet. Here also the work was done some years ago, and consists of a tunnel 100 feet long, driven along a quartz vein which outcrops along the top of a narrow ridge. The face of the tunnel is in waste, as is also the face of a short crosscut which was driven near the end of the tunnel, and if it had been continued for a few more feet would have struck daylight.

The old dump would not indicate that any appreciable quantity of ore had been extracted from these workings. The character of the ore here is similar to that at the lower workings. Immediately above this tunnel the vein is well mineralized for a width of 12 inches and is exposed for a short distance along the apex of the ridge. There is another small vein showing mineralization exposed near the top of ridge, and apparently joins the other.

Adjoining and in the vicinity of the vein the country-rock consists of argillites and some limestone, the whole being stained with oxide of iron for a considerable width, but the formation is very much broken and contorted. Some 200 feet along the ridge from the portal of the tunnel all trace of the vein is lost.

In conclusion, it is a prospect upon which further work may possibly disclose ore in larger quantities than have as yet been found, but it is not considered that present conditions justify any heavy expenditure.

Tennessee Group.

This group of claims is situated on the same mountain-side and adjoins some of the lower claims of the Tarheel Company's holdings. J. W. Conners, of Golden, who is the owner of the property, has done a little work during the last two years, which consists of driving a tunnel for a distance of 18 feet along the vein. Last year a small trial shipment was made to Trail, which is said to have assayed 11.92 per cent copper. This ore was extracted from near the portal of the tunnel, where there is a well-mineralized width of about 18 inches.

At the present face of the tunnel, although the quartz vein is strong, the ore is not of such high grade. The ore occurs here in the schist wall of the vein, and also replacing the quartz near the contact of the vein and the schist.

In an open-cut 50 feet above the tunnel an 8-inch width of ore is exposed along the wall of the vein. The formation here is greatly broken and squeezed over towards the west, and the vein seems to terminate in a large blow-out of quartz which is stained with oxide of iron.

Below the tunnel the quartz vein, which is strong and well defined, can be traced for a considerable distance down the hill, and is exposed in many places in the bed of the creek, but only shows narrow seams of chalcopyrite occurring at infrequent intervals. The vein has a

north-westerly strike and a dip of 50 degrees, which is also the general dip and strike of the strata, which consists of schists and slates.

Two men were working on the property last summer, but work was discontinued for the winter.

OTHER PROPERTIES.

At Field.—Mr. Adkins, the owner of the *Couverapee* mineral claim, adjoining the *Monarch*, has shipped 272 tons of silver-lead ore during the year.

Monarch.—A small shipment was made from this property, but work has been discontinued.

I.X.L. and Condor.—These claims are situated near Castledale and are owned by R. McKeeman and A. W. Logan. Very little work has been done, but according to reports there is a strong surface showing of low-grade ore. Assays received show the ore to run as follows: ½ to 1 oz. silver, 4 to 6 per cent. lead, with zinc values varying from 3 to 37 per cent. The owners anticipate work being done on this property next spring.

WINDERMERE MINING DIVISION.

Paradise.

This property is situated at the headwaters of Spring creek, at an altitude of 7,300 feet. The camp is situated near the bottom of a basin, the sides of which are rugged and steep opposite the mine-workings, but where they are situated, and immediately above to the summit of the divide between Toby and Boulder creeks, the hillsides have a more rounded appearance, with uniform slopes, the surfaces of which are covered to a depth of 3 or 4 feet with small broken fragments of slates and argillites, and few rock-exposures are visible.

The ore occurs in irregular and somewhat disconnected bodies in a crushed and sheared zone of slates and argillites, which formation is greatly oxidized, and is so soft that it can be mined by pick and shovel without the use of powder, but has to be carefully timbered. Above the mine-workings the formation shows uniformity in dip and strike.

The sheared zone lies between the limestone on the west and a wide band of quartzite on the east. The ore probably replaces the limestone, and general conditions would indicate its continuity with depth, and that further development-work might be carried on from the lower tunnel to advantage.

The mine, which has been worked intermittently for a number of years under the careful management of R. Randolph Bruce for the Hammond Estate, has now been acquired by him. In spite of numerous obstacles to overcome, principally in the way of transportation facilities and lack of funds for development, it is the largest producer in the Windermere district. During the year 2,100 tons was shipped to Trail. The typical ore known as "sand carbonates" is soft and crumbly and earthy in appearance. The average values run 30 oz. silver and 30 per cent. lead.

The methods of handling the ore from this mine are somewhat unique in this district; hence the following description may be of interest: From the present mine-workings, which are some 500 feet above the camp, the ore is transported by a 2-bucket tramway to ore-bins near the camp; from here it is hauled by teams down the mountain for a distance of seven miles to Pinehurst, and thence partly by teams and partly by motor-truck over the first seven miles of the road (which is not suitable for the tractor). From this point the ore is hauled by a large motor-tractor, which takes the wagons in tow, and finally delivers the ore at Athalmer, making the total distance of haul twenty miles.

In order to do away with adverse grades, sharp turns, and to shorten the length of haul from Pinehurst, a new road is being built along the south side of Toby creek, which will connect with the old road at the eight-mile point, and will permit the use of tractors from Pinehurst. Besides shortening the length of haul by three miles, this road will be of great benefit to the *Paradise* mine and to any other properties up Toby creek which may have ore to ship. The long haul down the mountain from the mine to Pinehurst is the most serious drawback to the economical handling of the ore at present, and an aerial tramway is needed. With a view to making this installation a right-of-way was surveyed last summer.

Silver Belt Group.

This property comprises a group of six claims, which are staked across the bottom of the basin, below the *Paradise* mine, and is owned by the Silver Belt Mining Company, of which C. M. Keep, of Kendrich, Idaho, is president. The property has been lying idle for a number of years, although I believe a

little work was done this year. In 1901 a trial shipment of 15 tons to Trail netted $1,456 and averaged 218 oz. in silver to the ton.

Surface workings consisting of open-cuts and two small shafts show mineralization similar in character and occurrence to that at the *Paradise*. On account of the flat contour of the surface in the vicinity of the best showings, no backs can be obtained by drifting, and the property will eventually have to be developed by a shaft. General conditions would appear to fully justify more development-work being done.

Shamrock. This claim has been staked adjoining the *Paradise* group on the north. Its northern boundary overlaps the cliff which forms the northern side of the divide above the *Paradise*. The claim is located on the strike of the *Paradise* ore-bodies, but as there is nothing to indicate the presence of ore on the surface of the hill, which is covered with detritus, any definite opinion cannot be formed of the possibilities of this claim until it is further exploited. (For further reference regarding the *Paradise* basin properties *see* W. Fleet Robertson's report, 1903, and J. D. Galloway's report, 1915.)

Hot Punch Group. This property is owned principally by E. Stoddart and C. Perry, of Windermere. It consists of a group of five Crown-granted claims situated at the head of the North fork of Toby creek, at a distance of twenty-four miles from Athalmer, the nearest point on the railway. The claims are easily accessible by road, which follows an easy grade up Toby creek for a distance of fifteen miles from Wilmer, then branches off up the North fork for a distance of about seven miles.

Last spring part of this road was washed out, on account of which the trip to the *Hot Punch* was made in order to ascertain whether assistance towards repairing the road should be given by the Government. When the new road up the south side of Toby creek is completed, the distance will be shortened by three miles and transportation facilities greatly improved.

J. D. Galloway reported on the property in 1915 for the Department of Mines. Since his examination was made very little work has been done, so I will only briefly describe the conditions as I found them at the time of my visit.

The camp is situated in a patch of heavy timber on the mountain-side, the elevation being approximately 6,000 feet. The cabins, which are in good repair, are well built and commodious, and there is an abundant supply of water and timber.

The uppermost working, which is about 500 feet above the camp, consists of an old abandoned shaft; how much of it has caved and filled in is difficult to say, but I was only able to examine it for a depth of 30 feet. The vein here has a width of from 2 to 3 feet, and is well mineralized with galena, iron pyrites, in an oxidized gangue. Although there is not sufficient ore exposed here to be of any commercial importance, general conditions would appear to warrant further work being done in the vicinity of this outcrop. Other workings consist of tunnels driven along the vein, and described in Galloway's report.

Two car-loads of ore is said to have been taken out of the upper tunnel, and there is now about 30 tons of ore on the dump. A grab sample from a pile of 6 tons of carefully sorted ore for shipment gave the following returns: Gold, 0.02 oz.; silver, 62.4 oz.; lead, 2 per cent.; zinc, 4 per cent.

The formation consists of schists, quartzose schists, and thin beds of limestone, having a north-westerly strike and a dip of 50 degrees. The mineralization occurs in a fissure-vein following the bedding-planes of the strata. Although the ore has only been found to occur in small lenses at intervals along the vein, it is of high grade, and with the present price of silver it should be possible by careful mining on a small scale to extract more ore at a profit; at the same time there is always the possibility of further work disclosing other ore-shoots of commercial importance.

Sitting Bull Group. This property is situated at the top of a deep canyon which cuts the south side of Boulder mountain. The distance from the nearest shipping-point on the railway is approximately twenty miles, ten miles of which have to be travelled by trail up Boulder creek. The nearest town is Wilmer. The property is now being operated by F. W. Wonn, of Seattle, and associates, and E. D. Smith is in charge of the mine.

The cabin, which has accommodation for about twelve men, is built on a small bench excavated in the side of the canyon. The country surrounding the camp makes it not only

difficult and expensive to get in supplies, but also almost impracticable to pack down ore. To overcome this serious drawback, Mr. Smith informed me that he proposed erecting a light aerial tramway from the mine to the valley of Boulder creek. From latest reports I understand that this has been done. The elevation of the camp is 7,200 feet, and that of the workings on the vein varies from 7,700 feet at the lowest working to over 9,000 feet at the uppermost.

The lowest workings consist of a crosscut 124 feet in length. At 85 feet from the portal the vein was cut, exposing a width of 3 feet of quartz and iron oxide; no values were found at the time, and the tunnel was continued for another 40 feet in barren ground. They have since found some nodules of galena in this vein, and were proceeding to drift on it at the time of my visit. Above this tunnel and along the strike of the vein there are several surface showings of galena varying from 6 to 16 inches in width. A shaft was sunk on one of these showings some years ago and is said to be 80 feet deep, but I was unable to investigate it on account of rotten ladderways and water. Since my visit I am informed by the manager that it has been retimbered, and that there is some good ore in the bottom, which assays as follows: Silver, 57.6 oz.; lead, 40 per cent.

Following the vein up the mountain, at an elevation of 8,500 feet a 10-inch width of ore is exposed in an open-cut. Here the ore occurs as an impregnation in a talcose schist, in streaks and small bunches, associated with small stringers of quartz. In the bed of the creek above this work small lenticular pockets and stringers of galena occur over a width of 10 feet, but the mineralization is so scattered that no economic importance can be attached to the amount of ore exposed at this showing. Farther up the mountain-side a dark-coloured intrusive dyke cuts the formation. This dyke apparently is post-mineral in age and bears no relation to the deposition of the ore.

At an elevation of 8,800 feet a tunnel has been driven along the vein for a distance of 35 feet. At the portal the vein is 30 inches wide, but gradually squeezes down to a width of a few inches at the face. Some 500 feet above this working another tunnel has been driven along the vein for a distance of 18 feet, exposing 18 inches of galena. I did not see this uppermost working, as it began to snow and sleet; had the weather been fine we intended to go over the ridge and investigate the *Relief* group, which is situated near the top of the ridge on the northern slope of the mountain.

There are two veins on the *Sitting Bull* property, which run almost parallel and show marked continuity for almost the entire length of the claims. So far the development-work has been confined to the lower vein. The formation consists of alternating bands of limestone and slate, with occasional beds of schist. The limestone is characterized by numerous quartz stringers. The ore is a massive fine-grained galena and has an average value of: Silver, 45 oz.; lead, 40 per cent.

Five men were steadily employed last summer, and work is being continued during the winter. Small shipments will probably be made in the near future, but until transportation facilities are improved it is not likely that any large quantities will be shipped.

Relief Group. This property is situated on Boulder mountain at an elevation of between 9,000 and 10,000 feet, just over the ridge above the *Sitting Bull* group. Mr. Chamberlain, of Wilmer, and partner have been working this property under a lease and bond. Twenty tons of ore has been packed and hauled down to Wilmer. The ore is similar to that at the *Sitting Bull*. In order to appreciate the difficulties that have to be contended with in these outlying districts, the following facts may be of interest: This ore had to be packed down a steep mountain-trail from an altitude of 9,000 feet to Boulder creek; then again packed over a rough trail for a distance of about nine miles to a wagon-road; then hauled for eight miles to Wilmer.

Delos Group. This group, consisting of three Crown-granted mineral claims, is located on the Boulder Creek trail and is easily accessible. The property is controlled by E. J. Scovil, of Golden. The ore is principally chalcopyrite associated with a quartz gangue. Assays on selected ore from surface cuts ran 0.8 oz. silver and 27.6 per cent. copper. It is a prospect worthy of further exploitation.

Mabel R. This property is situated on Law creek. Frank Anderson, the lessee, has about 20 tons ready for shipment. The ore is said to run 8 to 12 oz. silver and 80 per cent. lead.

Isaac. This property is situated on Frances creek and belongs to H. E. Forster, who reports that 116 tons was shipped. The property is now closed down for the winter. The ore is an argentiferous galena.

Lead Queen. This group, which is owned by Tom Brown and J. McLeod, of Wilmer, consists of five claims situated on the north side of Frances creek, at a distance of eighteen miles from Brisco, on the Kootenay Central Railway. The company which operated this mine as late as 1916 completed the road to the mine, erected large and substantial log buildings at the Half-way House, consisting of a stable of sufficient capacity for thirty or forty horses, a large bunk-house, cook-house, manager's house, office, and blacksmith-shop.

Sufficient development-work had not been done on the property to justify all of this latter expenditure, and finally after doing a little mining the company went into liquidation, and the property reverted to the original owners.

This property is described in J. D. Galloway's report of 1915, so I will only deal with those workings from which it is intended to ship ore this winter, the object of the examination being to determine whether Government assistance for a winter road in this case is justified.

The upper, which at present are the main workings, are at an elevation of 7,000 feet. The vein is approached by a crosscut tunnel, which intersects it at a distance of 150 feet from the portal. This tunnel after going through 96 feet of slide material cuts the quartzite formation in which the vein occurs. It has been continued in country-rock for a distance of about 140 feet past the point of intersection of the vein.

From the crosscut 80 feet of drifting has been done along the vein in a westerly direction and 125 feet in an easterly direction. The vein has a width of about 3 feet and is well defined between quartzite walls. About a 3-inch thickness of talc gouge marks the foot-wall. The vein-filling consists of broken and crushed quartz stained with oxide of iron and in places carrying values in lead carbonates; in this a streak of high-grade massive galena occurs, which can be traced for almost the entire length of the drift. Generally speaking, it has a good workable width, although in places it squeezes down to a seam of a few inches in thickness. The vein has a dip of 58 degrees to the south-west and a north-westerly strike.

In a 5-foot winze, which was recently sunk at a distance of 25 feet from the intersection of the crosscut and the drift, a 20-inch width of massive galena is exposed. Above the drift all the ore has been stoped out, the stope running up to a height of about 30 feet above the drift. At the face of the westerly end of the drift a 2-inch seam of galena is exposed; the easterly end of the drift is caved and is not in ore.

At an altitude of about 125 feet above the tunnel an open-cut and a short tunnel driven near the surface expose a shoot of galena which has a length of about 10 feet and an average width of 18 inches. The ore from this property runs from 30 to 40 oz. in silver and about 65 per cent. lead. Future work will consist of drifting on the vein and mining the ore under the floor of the drift by underhand stoping.

In the underground workings the walls of the vein are well defined; both the gouge along the foot-wall and the crushed nature of the vein-filling demonstrate that there has been considerable movement along the line of the fissure. Following this movement, indications would denote that the deposition of the mineral had taken place along the line of least resistance in the loose and crushed material of the vein-filling; conditions which should be favourable for the making of good-sized ore-shoots.

Last year three cars of ore was shipped to Trail during the winter months, which owing to present transportation facilities is the best time to handle the ore. The present owners are now working, and further shipments will probably be made this winter. Further development-work might be carried on to advantage, but the owners are handicapped by lack of funds.

FORT STEELE MINING DIVISION.

Burton. Only a brief examination was made of this property, with a view of determining whether conditions at the mine warranted Government aid being given towards the building of a short stretch of road to the railway-siding near Elko. The property consists of a group of three claims situated at a distance of two miles from Elko and at an elevation of 3,900 feet. Work, which is being carried on under the direction of

J. L. Parker, is being financed by a syndicate principally composed of Calgary people. The mine is being developed by means of two adit-tunnels, the vertical distance between which is 209 feet. The ore occurs in a fissure-vein having a strike of N. 55° E. and an almost vertical dip. The country-rock in which the vein occurs is a highly siliceous limestone of the Cambrian or Devonian age.

The upper tunnel from which the ore is being extracted has been driven along the vein for over 300 feet. In this tunnel two shoots of ore are exposed; the vein between the shoots does not show a workable width of ore along the drift, although in places it is well mineralized.

The present stope from which shipping-ore is being extracted extends for 30 feet above the drift, and is between 30 and 35 feet long. The westerly end of the stope shows a width of 3 to 4 feet of ore, which will average 6 per cent. copper and between 5 and 6 oz. in silver. The width of the stope gradually decreases towards the easterly face, where the ore pinches out. For the length of the stope as given above the average width of ore can be safely taken as 2 feet, and that of the vein, including ore, oxidized gangue material, and quartz, as 6 feet.

A 40-foot winze has been sunk on this ore-body from the drift, and exposes 3 feet of good ore at the bottom. The ore here consists principally of carbonates of copper carrying a few ounces in silver, and the deposit, on account of the high state of oxidation, is crumbly and easy to mine.

Following the vein in from this working, it is narrow and only slightly mineralized for a distance of about 60 feet; at this point a width of 2 feet of chalcopyrite and iron pyrites associated with a quartz gangue is disclosed, and can be traced for a distance of approximately 50 feet. Some stoping has been done on this ore, and a 16-foot winze demonstrates that it continues below the floor of the drift. The remaining 20 feet of the drift is in waste.

The lower workings consist of a crosscut which is in 230 feet, and at which work is being carried on, with the expectation of striking the vein within the next few feet. Should the development in this lower level come up to expectations, it is the intention of the management to use it as a shipping-tunnel, and it will be connected with ore-bins at the bottom of the hill by means of a gravity-tramway, the material for which has already been purchased.

Eight men were employed; the mine cabins are well built and afford good accommodation, while the camp is well and favourably situated. The mine shipped two car-loads of ore last year, and 85 tons has been shipped to Trail during 1917.

Victor.

This property, consisting of three claims, is owned by R. Abernethy, of Spokane, and associates, and is being managed by his son, Elmer Abernethy. The claims are located at the headwaters of Maus creek, at a distance of nine miles from Fort Steele. A good road was built this year for a distance of six miles from the mine to connect with the wagon-road to Fort Steele.

The present owner has held the property for ten years, and has worked it in a small way almost continuously during this period, with the result that there is now a considerable amount of development done. The country in the vicinity of the mine is rugged and steep, but where the camp is situated, and immediately below, the slopes are less steep and are covered with small timber. About 600 feet below the workings there is sufficient water to run a mill of small capacity.

Viewing the steep and rocky mountain-side from the camp, the vein can be distinctly seen, cutting at an acute angle the stratification of the country-rock. Two tunnels have been driven along the vein; the upper tunnel is 387 feet long, and the lower, which is 125 feet vertically below the upper tunnel, has been driven for a distance of 412 feet.

The vein can be traced to the summit of the ridge, some 800 feet above the upper tunnel. By strenuous climbing we were able to follow the vein for a short distance above the upper tunnel, and no doubt could have followed it a good deal farther had the mountain-side been less steep.

The vein is massive quartz, varying in width from a few inches to 5 feet. The general direction of the strike is S. 15° W. and the dip vertical. The country-rock consists of shale, the strike of which is north and south and the dip 70 degrees. The metallic contents of the vein are argentiferous galena and zinc-blende associated with iron pyrite in a quartz gangue; the mineralization occurs in small lenticular shoots and thin streaks along the foot-wall, also occasionally disseminated through the quartz, and, although persistent for the length of vein at present exposed, has only a workable thickness in places. The ore is complex, and, although

a fairly clean galena and a zinc product can be obtained by careful sorting, a large percentage of the ore consists of an intimate mixture of galena and zinc-blende.

A sample taken across a 34-inch width of vein in the upper tunnel gave the following results: Gold, 0.06 oz.; silver, 14.3 oz.; lead, 16 per cent.; zinc, 8 per cent. Another sample taken across a 4-inch streak of galena at the face of the upper tunnel gave: Silver, 7 oz.; lead, 12 per cent.; zinc, 3 per cent.

Most of the recent work has been confined to the lower tunnel, where the ore shows greater continuity than in the upper tunnel, and values appear to be more concentrated. A sample across a 16-inch width of the vein gave the following returns: Gold, 0.02 oz.; silver, 13.2 oz.; lead, 27 per cent.; zinc, 17 per cent. A sample of the sorted ore for shipment ran as follows: Gold, 0.02 oz.; silver, 21.5 oz.; lead, 43 per cent.; zinc, 9 per cent.

Since my visit to this property Mr. Abernethy informed me that he has installed a 6 x 7 Ingersoll-Rand compressor and a 10-horse-power Fairbanks-Morse gas-engine for the purpose of operating hammer-drills, which will greatly reduce the cost of mining by hand-drilling. Also that from the numerous samples recently taken at the mine he estimates that there is sufficient ore in sight to justify the erection of a small concentrator next spring. In the meantime shipments of sorted ore will probably be made to the Trail smelter.

Hand-sorting for this class of ore seldom, if ever, pays; besides being a costly operation, a large percentage of the values associated with the waste and fines go into the dump, never to be recovered. A clean separation cannot be obtained, zinc values are lost, and when in excess zinc is not only lost, but the mine-owner has to pay a penalty if his ore is being treated for silver and lead. In other words, hand-sorting is one way of robbing a mine. In this case a concentrator of such capacity as the ore in sight would warrant can be installed at moderate cost, and the results should fully justify the installation.

St. Eugene. During the year shipments of lead ore amounting to approximately 2,000 tons were made from this property. The upper workings were operated under lease, the Consolidated Mining and Smelting Company's operations being confined to below the 10th level.

Sullivan. This mine, which is being operated by the Consolidated Mining and Smelting Company, produced by far the largest tonnage in the Kootenays. The smelter receipts for the year show 112,000 tons to the credit of this property. Of this about 90,000 tons was zinc ore for the electrolytic plant, 5,000 tons of pyrite for the acid plant, and the balance silver-lead ore. The usual amount of mine-development was carried on, and the new double-track tunnel from the railway-siding on Mark creek was extended 3,000 feet. This tunnel when completed will give an additional depth to the present workings of 700 feet, and will greatly reduce the present cost of handling the ore.

Stemwinder, Ontario, North Star. These properties have been bonded to the Federal Mining and Smelting Company. This company intends to systematically exploit the mountain-side with the diamond-drill, and is reported to have two drills working at the present time. The ore at the *Stemwinder* is a fine-grained mixture of galena and zinc-blende, occurring in quartzite, and resembling the *Sullivan* ore in composition and occurrence.

The *Pork* group on Luke creek, owned by W. A. Chisholm, is being worked by Spokane interests under lease and bond.

At Skookumchuck a new find has been reported. It is said to be a large surface showing of pyrrhotite and pyrite, carrying native copper in seams and druses. The owners intend putting in a winter's work on the property.

Dibble Group. Work was started on this property last fall by W. M. Lindsay and associates, who have it under lease. The claims are situated at the head of Lost creek, at an elevation of 6,200 feet, and at a distance of ten miles from Fort Steele. This is an old property, upon which a considerable amount of work was done as early as 1898. The metallic contents of the vein are said to consist of high-grade copper ore, probably chalcopyrite and tetrahedrite carrying silver and gold values; the principal values being the precious metals. Reports of recent work done are encouraging.

Society Girl. Work was carried on at this property during the year, a few men being employed. The showings are said to be very encouraging, and further shipments will probably be made in the near future. The property is situated

near Moyie, close to the *St. Eugene* mine. It is an old working which has been steadily operated for a number of years, and from which a considerable quantity of ore has been shipped in the past.

Guindon Group. This property, consisting of three Crown-granted claims—*Alice Fraction*, *Guindon*, and *Fereole*—is owned principally by Frank Guindon, of Moyie. The claims are situated on the south side of Moyie lake and opposite to the *St. Eugene* mine. Mr. Guindon, who is an old-time miner of Moyie, has done a considerable amount of work on this property, and is now endeavouring to secure sufficient capital to complete a crosscut, which is being driven to tap the vein at a greater depth, and with this object in view is forming a company.

There are two veins on the property. No. 1, on which most work has been done, has a strike of S. 44° E. and a dip of 60 degrees to the south. The No. 2 vein is exposed in a drift at an altitude of 800 feet above the lake, and has a strike of almost due west. The formation which the veins traverse is the Aldridge formation, consisting of argillaceous quartzites, and has a north-easterly strike and a dip of 20 degrees to the north-west.

The principal work done has been devoted to the No. 1 vein, and consists of a crosscut 185 feet in length, at the end of which 180 feet of drifting has been done along the vein. Along this drift the ore, which is galena associated with iron pyrite and some zinc-blende, occurs at intervals in lenticular lenses along the foot-wall. At the easterly face of the drift a 3-foot width of low-grade ore is exposed, but work was discontinued, as they discovered that they were getting into the sandy clay which covers the surface of the bench under which the tunnel was driven for a depth of 100 feet. A sample from 5 tons of sorted ore from these workings assayed as follows: Silver, 16 oz.; lead, 54 per cent.

The lower crosscut being driven to tap the vein is in about 60 feet. On the No. 2 vein 200 feet of drifting and a little stoping has been done, with the result that there is 25 to 30 tons of ore on the dump. Generally speaking, the ore is complex and would require concentration.

REVELSTOKE MINING DIVISION.

Big Bend District.

Mastodon Group. This property, consisting of fifteen claims, is situated on the divide between LaForme and Carnes creeks, at a distance of twenty-five miles from Revelstoke, and is owned and operated by the Mastodon Mining Company, Limited, of which Amos Peterson, of Lethbridge, is president, and D. E. Harris, of Lethbridge, is secretary. J. W. Evans, of Revelstoke, is manager, and under whose direction the property is being systematically developed. The claims were staked some ten or twelve years ago and were known as the *Noble Three* group, but little work had been done on them until the present company acquired same.

The company built a good 4-foot trail down LaForme creek this year to connect with the proposed sleigh-road to Revelstoke. The camp is well situated on the saddle of the divide at an elevation of 4,700 feet. New cabins of suitable accommodation were erected this year. The country surrounding the camp and the mine-workings is well timbered, while there is an excellent mill-site available at LaForme creek, which is a short distance from and about 2,000 feet below the present workings.

Present development-work is being confined to two veins, which run parallel, following the dip and strike of the strata and cutting the hillside at an oblique angle. The formation, consisting of limestone with occasional thin beds of schist, shows uniformity and does not appear to be greatly broken or contorted. The strike is N. 18° W. and dip 36 degrees to the east.

At the lower vein, which is 500 feet above the camp, a shaft has been sunk for a distance of 110 feet on the lead. The surface showing at the top of the shaft consists of a 5-foot width of oxidized and leached ledge-matter, mineralized with galena, zinc-blende, and carbonates. The ore here is cemented together by a matrix of lime, which gives it the appearance of clinker. A sample of the sorted ore for shipment assayed as follows: Gold, 0.02 oz.; silver, 36.8 oz.; lead, 60 per cent.; zinc, 7.6 per cent.

This width of ore can be traced down the shaft for a depth of about 25 feet, when it is cut off by a "horse" or a bulge in the foot-wall. Below this and about 15 feet from the bottom of the shaft a body of high-grade zinc ore comes in along the foot-wall, the thickness of which it was difficult to ascertain, for during the sinking of the last few feet the foot-wall was missed and ran over the top of the zinc.

SKETCH MAP
of Portion of
REVELSTOKE
MINING DIVISION
Ground Hog Basin
French Cr.
Camp Cr.
Placer
Gold Stream
Gold Stream Ranch
Smith Cr.
TRAIL
12 Mile Cr.
Copper King Group
Montgomery Group
Clandyke Group
COLUMBIA RIVER
Fissure Cr.
Death Rapids
La Porte
Laformes Ranch
Downie
Downie Cr.
Keystone Cr.
Boyd's Ranch
Keystone Group
Silver Shield Group
Waverly Group
Seymour Cr.
Parks Cr.
Carbonate Chief Group
Standard Group
Five Mile Cr.
Seattle Group
Holdich Cr.
Mc. Bean Group
Mill Site
Rosebery Group
Shaw Group
Dunn Group
J. and L. Group
Carnes
Carnes Cr.
Frisby Cr.
Mastodon Group
West Br.
East Branch
North Fork Illecillewaet R.
Laforme Cr.
19 Mile House
Mc. Callum Group
Silver Cr.
N
Jordan Group
Jordan Cr.
WAGON ROAD
Belmont House
ALBERT CANYON
REVELSTOKE
Illecillewaet R.
C P R
SCALE
0 1 2 3 4 8 12 16
MILES
B.C. Bureau of Mines

Since my visit to the property the manager reports that a drift was started from the bottom of the shaft along the hanging-wall, and a short crosscut driven at a distance of 14 feet from the shaft disclosed a 5-foot width of high-grade zinc ore carrying 51.5 per cent. zinc on the foot-wall of the vein, which at this place has a width of about 15 feet. At a distance of some 200 feet from the shaft a crosscut is being run from the surface, and was in 80 feet at the time of my visit.

The other vein outcrops higher up the mountain-side and at a distance of 300 feet from the shaft, and occurs in a massive blue limestone. A small shaft which has been sunk on this vein exposes a width of vein-matter of 18 inches, in which a 4-inch streak of high-grade silver-lead ore occurs.

Twenty tons of ore has been sacked for shipment, and the prospects that the mine will become a steady shipper are encouraging, providing sufficient funds are supplied for carrying out the necessary development-work; but until the sleigh-road is completed to LaForme creek it is not likely that many shipments will be attempted.

Other properties up LaForme creek, which unfortunately I did not have time to visit, are as follows:—

The *Lyttle* group, staked to the east of the *Mastodon*, on which there is claimed to be a good surface showing of galena; on the *Adair* group, adjoining the *Lyttle* group, there is considerable amount of work done, according to old reports. The principal values are said to be in gold, silver, and copper. The *McCallum* group has also been well prospected. All of the above-mentioned properties have been lying idle for a number of years. The *McBean* group, which is situated on Cairnes creek, is owned by Mr. McBean, of Revelstoke, who has been carrying on development-work continuously for a number of years. The *Grimes* group adjoins the *Mastodon* on the south. Recent work has been done on the property, and there is reported to be a fairly good surface showing.

Montgomery Group.

This property is situated on Downie creek, which flows into the Columbia at a distance of thirty-six miles north of Revelstoke. The property consists of eight claims and is owned by J. C. Montgomery, of Revelstoke. The Granby Consolidated Mining and Smelting Company hold an option on this property, and during the summer had a gang of men stripping and trenching the surface. From reports received there is a large showing of pyrrhotite, carrying values in copper and gold. No definite information is to hand as to whether the Granby Company will continue the work next year or not.

The Government road which is being built up the Columbia river to the 19-Mile post is now completed to the 16-Mile post, and is already proving to be a great benefit to the miners and prospectors in the Big Bend country.

ILLECILLEWAET DISTRICT.

Lanark.

This property is situated near Illecillewaet, on the main line of the Canadian Pacific Railway. This mine has been working steadily during the year under the management of W. B. Dornberg, of Revelstoke. A little over 200 tons of concentrates has been shipped to Trail. It is reported that there is a good showing of ore in a 130-foot winze sunk from the bottom of the old workings, and that the ore runs: Lead, 10 per cent.; silver, 9 oz.; zinc, 7 to 8 per cent.

Mr. Dornberg is planning to add to the mill, thereby increasing the capacity to 150 tons. The additions will include a ball-mill, three tables, and a Zeigler flotation plant. The installation of a water-power plant is also being contemplated. Twenty-five men have been employed during the season, but very little work will be attempted during the winter months.

Key of Wealth Group.

This group is situated near the headwaters of Cariboo creek, which flows into the Illecillewaet river at Flat Creek Station, on the main line of the Canadian Pacific Railway. W. A. Thomason, of Revelstoke, has been doing some work on this property.

Silver Creek Group.

D. W. Woolsey is developing a group of seven claims situated on Silver creek at a distance of approximately seven miles from Albert Canyon. Most of the season's work was devoted to the building of a trail, which was necessary to enable supplies to be taken up to the property. The ore is reported to run high in silver and lead, with a small percentage of zinc.

Dunvegan Group. This is an old property on which a considerable amount of work was done as early as 1899, when about three cars of silver-lead ore was shipped. The property is situated at the headwaters of Fish creek, near the dividing line between the Lardeau and Revelstoke Divisions. Work this season was carried on under the direction of R. A. Grimes, who has the property under bond. The season's work consisted of building a new trail, and driving an adit-tunnel to develop the vein at a depth. Four men were steadily employed during the summer, but were laid off for the winter months. The work will be continued in the spring of 1918.

LARDEAU MINING DIVISION.

Multiplex. This group consists of eighteen claims owned and operated by the Multipex Mining Company, of Revelstoke. O. T. Bibb is manager and P. S. Wrightson is secretary. The camp is situated at a distance of one mile and three-quarters from Camborne, at the Junction of Poole and Mohawk creeks. The elevation of the camp is 3,600 feet. The principal work done has been the development of the *Spider* and *Excise* claims; the results are reported to be satisfactory and future prospects encouraging. The ore is an intimate mixture of galena, zinc-blende, and iron pyrites in a siliceous gangue.

Satisfactory milling tests were made at the Faust concentrating plant in Vancouver, but for further guidance, more especially in connection with flotation, a small pilot plant, consisting of a small Zeigler flotation-machine, a No. 6 Wilfley table, and a ball-mill, has been ordered for installation at the mine.

Winnipeg Group. This property is situated near the end of the Camborne wagon-road and has been operated by Arthur Evans, who is reported to have about 20 tons of high-grade silver-lead ore ready for shipment.

Goldfinch Group. Three men are reported to be working on this property, the work at present being confined to development.

King Solomon. This property, comprising three claims, is situated on Fish creek, and is owned by O. Woolsey, H. Bruce, and W. Kinnel, of Revelstoke. Over 300 feet of tunnelling was done some years ago. During 1917, 20 feet of drifting was done, with encouraging results. It is the intention of the owners to continue work next year.

AINSWORTH MINING DIVISION.

Eden and Crescent. This property consists of nine claims and a fraction and is owned by the Eden and Crescent Mining Company; A. L. White, president; W. Y. Williams, managing director. The mine is situated about three miles south of Ainsworth, on Coffee creek. Elevation of main tunnel, 1,000 feet above Kootenay lake.

The work done since the present company acquired the property consists of driving a crosscut 550 feet long to tap the vein, which outcrops on the surface 150 feet above the tunnel and is exposed in a 40-foot shaft. At the end of this crosscut they have drifted along the vein for a distance of 30 feet, exposing an average width of 4 feet 6 inches. The vein is strong and well defined, dipping 50 degrees to the west, the ore being zinc-blende and galena, which in some places carries silver values. A sample taken across a width of 4.3 feet at north face of drift assayed: Gold, trace; silver, 0.7 oz.; zinc, 35.6 per cent. Another sample taken across a width of 4.5 feet, 8 feet from south face of drift, gave: Gold, 0.02 oz.; silver, 2.5 oz.; lead, 17 per cent; zinc, 15.6 per cent. The walls are well defined; the foot-wall appears to be a silicified limestone, the hanging-wall a schist. The vein can be traced on the surface by open-cuts for a distance of about 1,000 feet. The ore being mined at present is milling-ore. There is a good mill-site directly below the present workings, where water-power is available.

The present means of access is by road for two miles and a half from Ainsworth and by trail for the balance of the way. The road from Ainsworth zigzags up the side of a steep ridge, attaining an elevation of 1,300 feet, where a trail leaves it for the *Eden and Crescent Mine*. This trail has several reverse grades, and near the end drops abruptly to the camp. This is a very expensive way into the mine at all times, and is said to be impassable in the spring on account of water. The natural outlet to the property is down Coffee creek, which would mean not more than one mile and a half of trail; the company has asked the Government to assist in building this trail.

The property is still in the development stage. The company has already spent a considerable amount of money on the property, and intends spending a lot more in development-work during this winter and next spring; hence desires to have the transportation facilities improved as soon as possible.

Silver Hill.

This mine is situated at an elevation of 5,630 feet, or 2,355 feet above the lower terminal of the tramway, which is situated on Crawford creek, nine miles from Crawford bay, in the Ainsworth Mining Division. In the vicinity of the mine the formation is of sedimentary origin, consisting of shales, schists, and sandstones, which have a uniform dip and strike and appear to be free from volcanic disturbance.

There are two known veins on the property, the upper being 60 feet above the lower. The upper vein has not been prospected to any great extent, but appears to be similar to the lower one. The veins are formed between the bedding-planes of the shale, which in places has a schistose structure. The dip of the formation is 10 degrees to the north, the strike east and west.

The vein is of the fissure type and shows a banded structure. The walls of the vein are well defined, the surfaces of which are smooth and show evidence of lateral movement. The vein, though persistent, varies greatly in width; while in places it is of a workable thickness, in others it squeezes down to a few inches, and in some instances divides into two small veins, separated by a band of from 2 to 3 feet of shale. There appears to be a greater concentration of mineral in the narrow places, which are said to contain streaks carrying high silver values. The mineralization consists of zinc-blende, tetrahedrite, chalcopyrite, iron pyrites, and galena, the galena predominating. The gangue consists principally of quartz. A small trial shipment to Trail gave a net return of $64.35 a ton.

The mine was worked between 1898 and 1901; since then it has remained idle. The amount of tunnelling done is approximately 2,650 feet. There has also been a considerable area stoped out. A number of drifts and open-cuts expose the vein on the hillside for a distance of at least 1,000 feet along the dip of the strata and above the main tunnel, continuing along the dip for another 700 feet from these workings; two tunnels on the *Richelieu* claims again expose the vein in-place.

The amount of development-work already done gives sufficient access to the vein to allow systematic sampling, from which the economic contents of the mine could be arrived at with a very fair degree of accuracy. Further, the old workings are in such a condition that they would prove of value in the future development of the property.

There are between 2,000 and 3,000 tons of second-grade ore on the dumps, which, judging by the surface appearance, would make good mill-feed; a grab sample of dump gave: Silver, 18.5 oz.; lead, 6.3 per cent.; zinc, 13.7 per cent. Although a certain amount of high-grade ore could be extracted for direct shipment, generally speaking the ore lends itself to concentration; and for the continual and successful operation of this mine, in the opinion of the writer, after a somewhat hasty examination, it would be necessary to install a mill. However, before making the installation of additional plant for the treatment of the ore, considerable money would have to be spent on repairing the tramway, buildings, ore-bunkers, etc., before this work is gone ahead with. The company would be well advised, if it has not already had it done, to have the ore in-place and that in the dumps systematically sampled and surveyed, which expense, judging by the surface and underground showings, would be amply justified.

Bluebell.

This property is being operated by the New Canadian Metal Mining Company, S. S. Fowler is general manager, and from him the following information was obtained: The mine was worked continuously during the year, and employed an average of eighty-three men. The mine is now opened to the fifth or E level below the adit. Elevation of adit station is 1,773 feet and of E station 1,403 feet.

The ore-bodies have not yet been sufficiently exposed to permit one to say whether or not the lowest level will reveal any change of importance in physical or mineral conditions. There is noticeable, however, a decrease of both zinc and lead tenure and an increase of silver, and water as depth increases. Tons of ore mined, 58,620. Out of this, 1,030 tons was low-grade oxidized ore, the greater part of which was shipped direct to the smelter; the remainder was concentrated.

Comfort.—This property, which adjoins the *Bluebell*, has been worked during the year by A. D. Wheeler, and shipped 51 tons.

Woodbury Creek.

Sacramento Group.—This property has been worked under lease and bond by C. F. Caldwell, four men being employed. Cabins have been erected and everything is in readiness to commence operations next season. The ore carries lead and high silver values.

Sun.—This property has been worked by B. H. Nellis. Shipment to Trail, 34 tons.

Lavina Group.—Three or four men have been working on this property.

St. Patrick Group.—This property is being developed by the British Alberta Mining Company, of which A. J. Flood, of Vulcan, Alberta, is president and W. R. Allen, of Nelson, secretary. Active development-work has been carried on and substantial camp buildings erected.

Silver Gable.—This property is situated half a mile north of Duncan lake. Development-work has been carried on under the direction of W. R. Smith, of Kaslo.

Argenta.—This property is situated on Hall creek. Two men have been working here during the season.

Properties near Ainsworth.

Highland.—Operated by the Consolidated Mining and Smelting Company. The shipments to Trail show 1,480 tons concentrates.

Florence.—Under the management of C. R. Wolfle, the mine has been operating steadily during the year and has given satisfactory results. Tonnage to Trail, 852 tons concentrates.

Other shippers are: *Spokane-Trinket*, 136 tons; *Silver Hoard*, 84 tons concentrates; *Little Phil*, 34 tons; *Banker-Maestro*, 27 tons; *Albion*, 44 tons; *Gallagher*, 31 tons.

Skyline.—Development-work has been done on a fairly large scale during the summer, but latterly the property has been closed down pending the settlement of labour troubles.

Properties near Kaslo.

Cork-Province. This property was visited on August 13th regarding an application for Government aid for road-repair work. The group, consisting of thirteen claims, is being operated by the Cork-Province Mines, Limited, of which J. Zwicky is manager and W. Burgess secretary. The mine is situated on Mansfield creek, at a distance of eight miles from Kaslo and four miles from the nearest point on the railway; the elevation of the camp is 3,350 feet. The vein, which has a strike of north-east and south-west, is well defined and has a width of about 9 feet, widening in places where the ore-shoots occur to 20 feet. The country-rock is slate. The ore occurs as massive galena, a mixture of zinc-blende and galena, and zinc-blende associated with spathic iron. Bands of crystalline limestone cut the vein at regular intervals; at these contacts the greatest deposition of mineral has taken place and large ore-shoots have been opened up.

The development now being carried on is the continuation of the main drift along the vein in an easterly direction, in order to strike the contact of another limestone-band which has been located on the surface. Average samples of the mine-run give the following values: Silver, 6 oz.; lead, 8 per cent.; zinc, 10 per cent. The first car-load of concentrates assayed: Silver, 26 oz.; lead, 38 per cent.; zinc, 9 per cent.

There are two parallel veins on the property, but the work is being principally confined to the lower. Access to the underground workings is obtained by an adit-tunnel, which intersects the vein at 930 feet from the portal and gives 200 feet of depth on the vein at this point. All the ore comes out of this tunnel and is transported in the mine-cars to the mill-bins, the top of which is on the same level as the mine-track. Another adit-tunnel 300 feet long taps the vein at a higher elevation. The mine is well developed and there is a considerable quantity of ore in sight. A very nice body of ore was developed this year in a side-shoot from the vein on the lower level.

The mill has a capacity of 120 tons a day; on the concentrating-floors there are eight 4-compartment jigs, three Overstrom tables, and three vanners. Later reports state that an addition is being made to the mill with the view of installing a selective flotation plant for the separation of the concentrates carrying lead and zinc.

Shipments to Trail during the year totalled 461 tons of concentrates. Providing market conditions remain favourable, next year should show a considerable increase. The camp buildings are well built and have good accommodation. There is abundant timber available for mining purposes. The equipment includes a small sawmill. About thirty men were steadily employed during the year.

Manganese Group.

This property is owned by A. J. Curle, of Kaslo, and A. G. Larson, M.E., of Spokane. It is situated on the Kaslo & Nakusp Railway at a distance of six miles and a half from Kaslo. The deposit occurs on the gentle slope of the hillside immediately above the railway-track. Very little development and mining work has been done as yet. Some 600 sacks of ore has been recently taken from shallow surface diggings.

A few shallow pits demonstrate that the ore occurs as a blanket deposit on the surface or at a few feet below, forming a layer of from 1 to 3.5 feet thick in the soil. So far the deposit has not been found to be closely associated with or bounded by any rock in-place, and, the ore being principally a wad, manganese can be extracted at small cost by pick and shovel without the use of powder. The thin layer of soil covering the deposit also contains manganese in varying quantities.

It is estimated by the owners that there are from 3,000 to 5,000 tons of this class of ore available for extraction. At the time of my visit there was not enough work done to enable one to arrive at any definite conclusion as to the amount of ore in sight, but was favourably impressed with the showing and the possibilities of further development-work exposing a considerable quantity of ore. Average assay values in the possession of the owners run as follows: Manganese, 42.06 per cent.; iron, 1 per cent.; moisture, 13.12 per cent.; silica, 4 per cent.; phosphorus, 0.01 per cent.

Farther down the hill and almost on the same level as the railroad-track, in some small exposures, the manganese is found to occur underlying a layer of soft decomposed limestone, and it is possible that the ore may be found to exist in-place under the limestone which has been eroded away farther up the hill, leaving the manganese exposed on the surface. Further exploratory work should be done to determine definitely the extent, character, and origin of the deposit.

Since writing the above report I am informed that the owners now have a permit from the Munitions Board to export 10,000 tons to approved consignees in the United States.

According to reports the property has been recently bonded to an American syndicate, who propose to work it on a large scale during 1918. Plans for mining and exploiting the ore-body have been prepared by A. D. Nash, of Nelson, and in all probability shipments will be made at an early date.

Although the ore is freely exposed on the surface and is easily noticeable along the old Kaslo-Slocan road, which traverses part of the property, it has been overlooked for years, and was only staked by A. J. Curle, of Kaslo, since the beginning of the war. This fact should be of particular interest to the prospector, as it illustrates the possibilities of finding ores which have become of great commercial importance owing to the unusual demand brought about by the war.

OTHER PROPERTIES.

Utica.—The No. 7 adit-tunnel of the *Utica* mine is reported to be in 2,000 feet, and is being driven to develop ore-shoots exposed in the upper workings at an elevation of from 350 to 1,600 feet above the tunnel. The ore is silver-lead-zinc, carrying high values in silver. Shipments to Trail during the year totalled 396 tons.

Sunset Group.—The lower adit-tunnel is said to be in 1,800 feet; it is being driven to tap the ore-body at a distance of 270 feet below the present workings.

Bell.—This property is being operated by the Jackson Basin Zinc Company. An adit driven from the Jackson Basin side is reported to have developed the *Bell* zinc-shoot. Shipment to Trail, 569 tons.

Whitewater.—Ten men have been working at this property during the year under lease. Shipment made, 900 tons.

Charleston.—This property is situated above the *Whitewater*. A. J. Harris is doing some development-work.

Eureka.—This property is being developed by J. C. Ryan.

Helen.—This property, which has been lying idle for some years, is now being developed on a small scale by W. English, of Kaslo. It is a silver-lead ore carrying high silver values.

Gibson.—This property is situated about two miles up the creek from the *Cork-Province* mines. Active development has been carried on under the direction of D. K. May, and encouraging results have been obtained.

Index.—This property is being developed under the supervision of C. F. Caldwell. Four men are now employed.

Gold Cure Group.—Some development-work has been done on this property by a company organized by C. F. Caldwell.

Flint and Martin.—A little development-work was done during the season. Shipment to the Trail smelter, 7 tons.

Revenue.—Two men were employed at this property.

SLOCAN MINING DIVISION.

The Slocan Division, which leads all others in the Kootenays and British Columbia in the value of the production of silver-lead-zinc ore, shows an increase in silver and zinc and a slight decrease in lead. There has been increased mining activity, however, and if it had not been for the curtailment of shipments, caused by industrial troubles and unfavourable market conditions, in all probability the production would have shown a considerable increase over that of 1916.

Silverton Camp.

The following is a list of the properties which shipped during the year, giving the approximate tonnage of shipments:—

	Tons.
Standard Silver Lead Mining Co., lead concentrates	2,580
Standard Silver Lead Mining Co., zinc concentrates	12,500
Galena Farm, silver-lead-zinc concentrates	2,797
Van Roi and Hewitt, silver-lead-zinc concentrates	1,250
Lucky Thought, silver-lead-zinc ore	880
Echo, silver-lead ore	79
Comstock, silver-lead ore	17
Hartney, silver-lead ore	12

Standard. After many years of steady production this property still heads the list of Slocan shippers. L. de Lachmutt, mine superintendent, reports that during the past year the most noteworthy development has been the finding of a supposedly new ore-body at a point 400 feet east of the main shoot, from which the bulk of the production has been obtained. This ore makes its appearance at about 100 feet above the No. 6 tunnel. Access to this is at present gained by means of a 100-foot winze from No. 5 tunnel, drifting from near the bottom of which has disclosed an average width of 4 feet for a distance of 150 feet. Grab samples from the broken muck gave the following values: Silver, 20.6 oz.; lead, 11.5 per cent.; zinc, 23.2 per cent. No raising of any importance has yet been done on this ore. A raise is now being started from the face of the No. 6 tunnel. A series of small lenses, which are apparently side-shoots from the main ore-body, have also been opened up between the fourth and fifth levels.

A considerable amount of work has been done on the *Emily Edith* ground on two distinct lenses, which are at a distance of approximately 3,000 feet west of the main ore-body. Low-grade lead and zinc ore suitable for mill-feed, which was left untouched during the early days of the mine, is now being extracted. Recent development in this direction has opened up additional tonnage.

Galena Farm. This property, which is largely owned by the estate of the late Patrick Clark, of Spokane, has been operated during the year under the management of P. W. Clark, and is reported to have paid handsome dividends. The manager reports that a new body of ore was recently struck on the 100-foot level.

Van-Roi and Hewitt. These properties, which have been recently acquired by Clarence Cunningham, of Sandon, have been systematically developed by him, with encouraging results.

Echo. This property, comprising a group of six claims—*Echo, Duke, Duchess, W.H.R., Graphic,* and *Boston*—is owned by the Echo Silver Lead Mining Company, of which Martin Welsh is president and L. J. McAtee is secretary.

The *Echo* claim, upon which development-work is now being carried on, adjoins the *Alpha* claim of the Standard Silver Lead Mining Company on the north, and is staked along the strike of the *Standard* vein.

The property was visited by the writer on August 18th; at this time there was some 2,600 feet of drifting and about 1,400 feet of crosscutting. The main workings consisted of two adit-tunnels driven along the strike of the vein; that known as No. 1 tunnel has an elevation of 4,550 feet and E tunnel an elevation of 4,450 feet. There is not a great deal of ore exposed in the upper tunnel, and zinc and spathic iron are more in evidence than in the lower workings.

The E tunnel is started on the *Alpha* claim, and cuts a shoot of ore, part of which is on the Standard Silver Lead Company's ground and is being mined by them. This shoot or lens shows a width of 5 feet of solid galena in a 25-foot raise on the *Echo* ground, and can be traced for some distance along the drift, but gradually becomes more associated with gangue material and narrower until it pinches out. Streaks of galena occur farther in along the roof of the drift and continue to the face.

The country-rock is slate, and along the line of fissuring great movement has taken place, as is evidenced by the crushed and slickensided nature of the country-rock, which has been converted to a soft crushed graphitic slate. The ore is found to occur in lenses as a massive galena in this crushed material, and would appear to have been deposited after the movement had taken place. The width of the crushed zone varies from 30 to 70 feet. The vein has a strike of approximately N. 30° E. and a dip of 45 degrees to the east.

Another tunnel is now being driven along the vein at vertical distance of 130 feet below the E tunnel. The surface showing, which in places is from 25 to 30 feet wide, is oxidized and leached, and only small quantities of galena and zinc-blende are in evidence. The general conditions would appear favourable for the finding of more ore at a depth, and it is to be hoped that this property will soon rank among the important shippers of this district. Fifteen men were working on the property at the time of my visit. A new camp, having accommodation for forty men, was built this fall, and from which a good road was constructed to connect with the road from the *Standard* mine to Silverton.

L. H. Group. This group, comprising eight Crown-granted claims, is situated five miles and a half in a south-easterly direction from *Silverton*, at an elevation of 5,530 feet. The owners, A. R. Fingland and Chas. Brand, have done 70 feet of drifting in the No. 3 tunnel during the year. A considerable amount of development-work has been done in the past, with the result that there is now estimated to be 33,000 tons of positive ore and 18,000 tons of probable ore available for extraction. The ore consists principally of native arsenic, mispickle, pyrite, and pyrrhotite in a quartzose or siliceous gangue. The values are principally in gold, and from numerous samples taken by engineers who have examined the property the ore will average $5 to $6 a ton.

Bosun. This property is situated near the shore of Slocan lake, half-way between New Denver and Silverton, and according to old reports was worked in 1904 by the Bosun Mines, Limited, of 5 Fenchurch street, London; since this time it has apparently lain idle. Shipments were first made from the property in 1898, and from this time until 1904 the mine was a steady producer. The ore then shipped ran as high as 110 oz. in silver and 55 per cent. lead. Mining of the high-grade zinc ores was not attempted in those days, with the result that there was a considerable quantity of zinc ore left in the mine and on the dumps.

The vein is a large fissure filled with crushed and broken country-rock, in which lenses of galena and zinc-blende occur at irregular intervals. A considerable amount of development-work has been done by means of five adit-tunnels driven along the vein, the lowest of which gains a depth of about 400 feet.

Since the Surprise Mining Company took hold of the property this year, the old workings have been cleaned out and some of the old drifts are being extended. There is a considerable quantity of zinc ore available for extraction, and the prospects for opening up new bodies are encouraging. The zinc ore runs high in silver values and assays about as follows: Silver, 70 to 90 oz.; zinc, 45 to 54 per cent. It is estimated that there is 15,000 tons of ore on the dumps, which from numerous samples taken will average: Silver, 10 oz.; lead, 2 per cent.; zinc, 7 per cent.

A 2-bucket tramway 600 feet long was recently installed and connects the mine with ore-bins on the lake-shore, and in all probability ore shipments will shortly be made to the Rosebery concentrator, where the ore will receive treatment. Forty men were employed on the property at the time of my visit.

Rosebery Concentrator.

This plant was leased by the Surprise Mining Company during the latter part of 1917. In the earlier part of the year it was operated by J. H. Keen, who was treating ores from the *Whitewater* mines. It was originally built by the owners of the *Monitor*, *Ajax*, and *Bosun* properties with a view to treating the ore from these mines and also custom ores. The buildings are well designed and constructed, the only drawback being that the level nature of site does not allow the use of gravity for handling ore to the same extent as on a hillside location, but this is compensated by the convenience of the location to lake and rail transportation facilities. The mill is run by water-power. Briefly, the old plant consists of: Two 2-compartment, one 4-compartment, two double 5-compartment, and one 5-compartment jigs; and seven Wilfley tables, with necessary crushing, screening, and classifying equipment.

Since the Surprise Mining Company took over the plant $30,000 has been spent in additions and improvements, including the installation of a flotation plant consisting of a K. & K. and a Hynes machine, two large settling-tanks, a Portland filter, and ball-mill.

The mill-feed, which at present is ore from the *Surprise* mine, runs: Silver, 62 oz.; lead, 19.4 per cent.; zinc, 16.3 per cent. The jig zinc runs: Silver, 78.7 oz.; lead, 3.8 per cent.; zinc, 40.6 per cent. Table zinc: Silver, 71.2 oz.; lead, 7.2 per cent.; zinc, 44.2 per cent. Flotation zinc: Silver, 69 oz.; lead, 7.8 per cent.; zinc, 33.5 per cent. Flotation tails: Silver, 5.4 oz.; lead, trace; zinc, 3.2 per cent.

The silver in the tailings is in grey-copper or ruby-silver. Experiments are now being made which will probably lessen the loss of the silver and zinc in the tailings. The ratio of the total concentration is 2.3 tons of ore to 1 ton of concentrates.

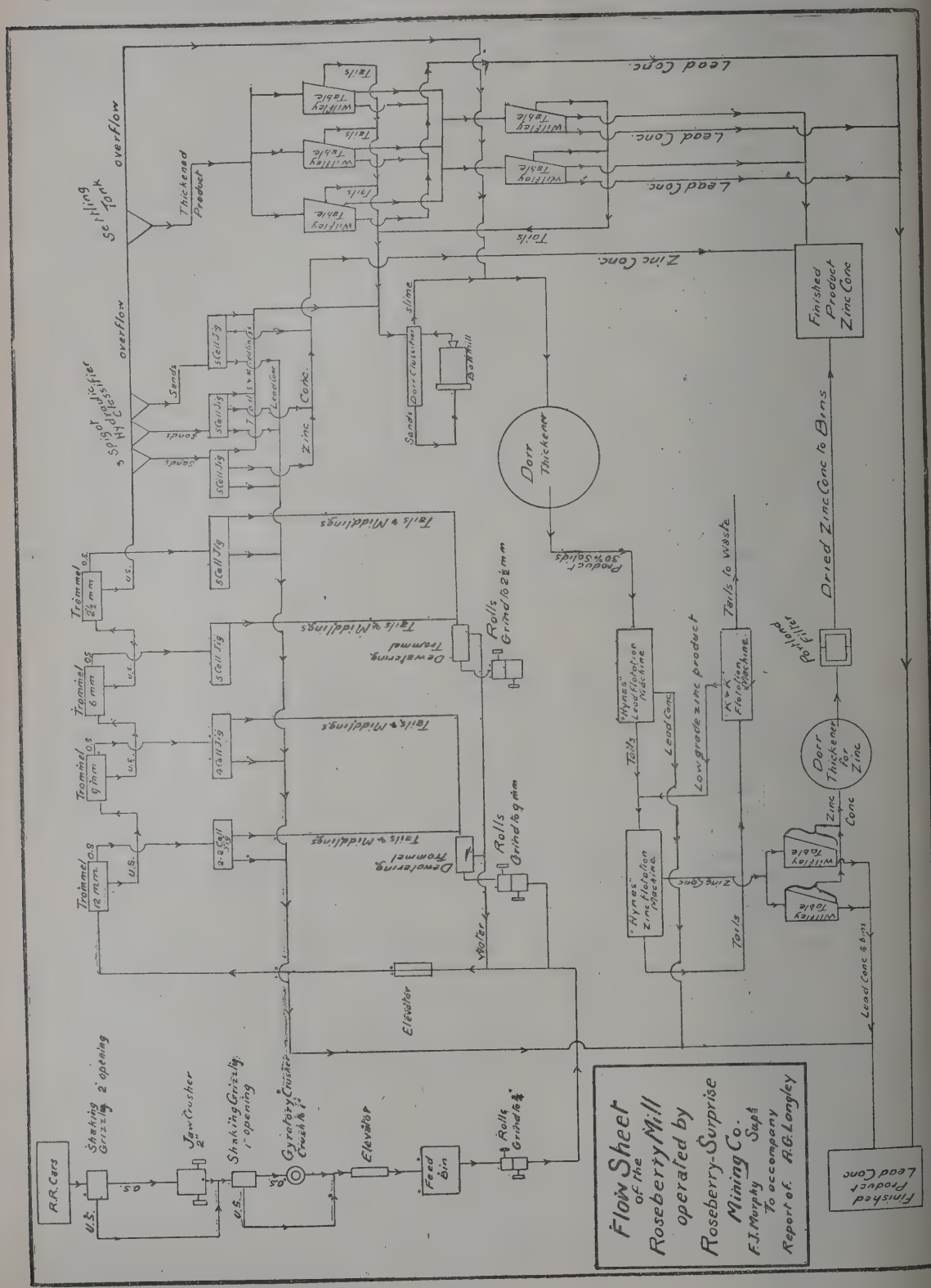
Sandon Camp.

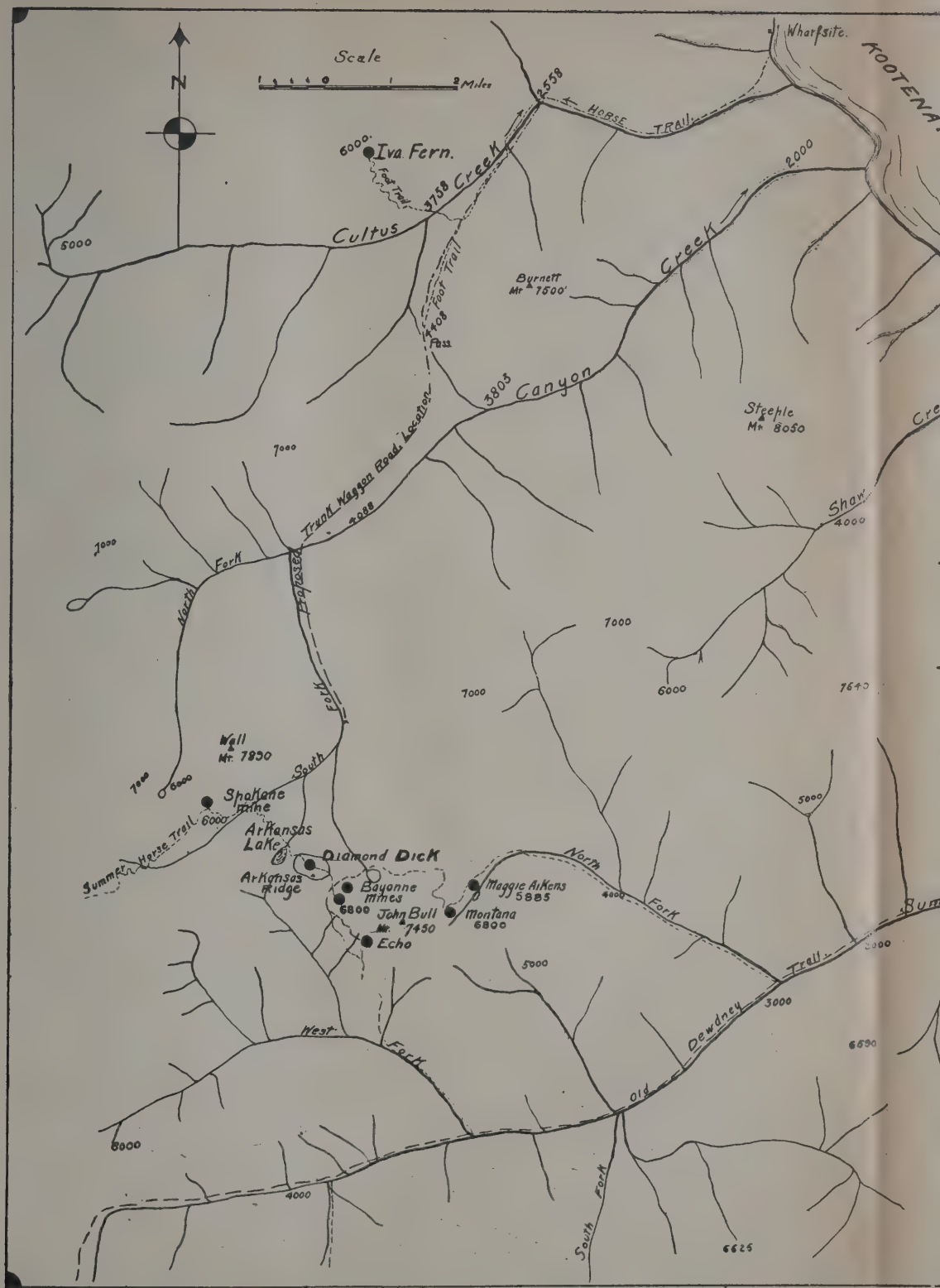
Surprise. This mine, which is owned by the Surprise Mining Company, is the second largest producer in the Slocan Division. The ore is milled at the *Surprise* mill at Sandon, and also at the Rosebery mill, which has recently been taking care of the overflow from the former mill. The mill-feed runs as follows: Silver, 62 oz.; lead, 19.4 per cent.; zinc, 16.3 per cent.

The Surprise Mining Company has extended its operations during the year and has recently acquired the *Bosun* mine, near New Denver; the *Ajax Fraction*, near the *Last Chance;* and the *Monitor* claim, near Three Forks. The company has also done some work on the *Elkhorn* group, of which George Gormley is one of the principal owners. In order to increase the milling capacity the Rosebery concentrator has been leased by the company, and to which considerable improvements have been made.

Queen Bess. Old records show that this mine was a steady producer from 1898 to 1903, and up to 1904 shipped $225,000 worth of ore, which had an average value of: Silver, 100 oz. to the ton; lead, 70 per cent. During the period in which these shipments were made the property was owned and operated by the Queen Bess Proprietary Company of England. At the end of 1903 it passed into the hands of the Bank of Montreal, and at this time there was little or no ore developed. In 1904 the mine was acquired by the Queen-Dominion Mining Company, Limited, which started in to systematically prospect and continue the development of the property. The company's efforts, however, apparently did not meet with much success, as evidenced by lack of shipments from this date. In 1916 Clarence Cunningham took over the property, and after doing a little crosscutting from the old workings developed a large shoot of high-grade silver-lead ore; the mine has since been shipping steadily, and has already become one of the most important shippers in the district.

The *Idaho* and *Alamo* claims, which lies to the south-west across Howson creek from the *Queen Bess*, have also been taken over by Mr. Cunningham and are being systematically developed. During the year an aerial tramway was completed to transport the ore from these properties and the *Queen Bess* to the railway at Alamo.


Flow Sheet of the Roseberry Mill operated by Roseberry-Surprise Mining Co.
F.J. Murphy Supt.
To accompany Report of A.G. Langley
R.R. Cars
Starting Grizzly 2" opening
Jaw Crusher 2"
Shaking Grizzly 1" opening
Gyratory Crusher
Elevator
Feed Bin
Rolls Grind to 4"
Elevator
Rolls Grind to 16 mm
Rolls Grind to 2 mm
Water
Trommel 12 mm
Trommel 9 mm
Trommel 6 mm
Trommel 2½ mm
Tails & Middlings
Tails & Middlings
Tails & Middlings
Tails & Middlings
Stall Jig
Stall Jig
Stall Jig
Stall Jig
Stall Jig
Sands
Sands
Sands
Slime
Zinc Conc.
Longtom Tails & Middlings
Spigot Hydraulicsifter
Settling Tank overflow
Thickened Product
Dorr Classifier
Ball Mill
Dorr Thickener
Product 30% Solids
"Hynes" Lead Flotation Machine
"Hynes" Zinc Flotation Machine
K.V.K. Flotation Machine
Tails
Lead Conc.
Low grade zinc product
Zinc Conc
Tails to waste
Tails
Tails
Willfley Table
Willfley Table
Willfley Table
Willfley Table
Willfley Table
Willfley Table
Lead Conc.
Lead Conc.
Lead Conc.
Zinc Conc.
Lead Conc. to Bins
Zinc Conc
Dorr Thickener for Zinc
Filtering Plant
Dried Zinc Conc to Bins
Finished Product Zinc Conc
Finished Product Lead Conc


Scale
2 Miles
N
Wharfsite
KOOTENAY
Iva Fern.
6000
Foot Trail
3758
Creek
Horse Trail
3558
Cultus
5000
Burnett
Mt. 7500'
Foot Trail
Pass
3808
Creek
2000
3803
Canyon
Steeple
Mt. 8050
Shaw
4000
7000
Trunk Waggon Road Location
North Fork
Bayonne Fork
South
Wall
Mt. 7850
Spokane
mine
6000
Summer Horse Trail
Arkansas
Lake
Diamond Dick
Arkansas
Ridge
Bayonne
mines
6800
John Bull
Mt. 7450
Echo
Maggie Aikens
5885
Montana
6800
North
Fork
4000
Trail
3000
5000
West
Fork
Dewdney
Old
3000
6690
8000
4000
South
Fork
6625
7000
6000
7640

Other properties which are being operated by Clarence Cunningham near Sandon are the *Sovereign* and *Wonderful*. About 250 men were steadily employed at the various properties operated by him during the year.

Noble Five Group.

This property, which is owned by the Hon. Jas. Dunsmuir, of Victoria, has been extensively developed during the last six or seven years, but there is no record of any ore being shipped during this period. More recent work has been carried on under the direction of Paul Lincoln, who is managing the property. Extensive crosscutting and drifting has been done on the lower level at a vertical distance of 1,100 feet below the upper workings.

In these workings the *Last Chance* vein was intersected, and a strong shoot of high-grade ore has been developed at a depth of approximately 3,000 feet below the apex of the vein. Ore is also exposed in this vein on the upper levels. There is evidently ample ore available for extraction to justify further expenditures being made for the erection of a suitable concentrator, and it now only remains to win and handle the ore in the most economical manner. With this object in view a 4-compartment vertical raise has been started from the lower level to connect with the upper workings. The ore will be dropped down this raise, and the lower crosscut will become the shipping-tunnel of the mine. The length of the raise will be 1,100 feet, and it will consist of two chutes, a manway, and skipway. At every 200 feet hopper-bottom pockets will be built to break the fall of the ore.

Between thirty and forty men have been steadily employed during the year. The development-work done on this property is the deepest exploratory work yet done, and is of great importance to the district, as it proves the continuity of the veins with depth and throws a new light on the character of the ore-shoots.

Slocan Star.

This property, which is one of the best known in the Kootenays, was discovered in 1891 by Bruce White and others. The Byron N. White Company, which was incorporated in 1892, acquired and operated the *Slocan Star* group. The mine proved very productive. After an examination of the property by W. A. Carlyle, the Provincial Mineralogist, in 1896, he states: "This property has not only paid a larger amount of dividends, or $300,000, than any other mine in British Columbia, apart from the coal and placer mines, but has also proved itself to be the largest silver-lead mine so far developed in the Province."

After a period of productive activity the holding company became involved in costly and protracted litigation with the Star Milling and Mining Company. The case arose over the "extra lateral rights" of an adjoining claim named the *Rabbit's Paw*. In 1911, R. S. Lennie, of Vancouver, amalgamated the conflicting interests and incorporated a company under the name of the Slocan Star Mines, Limited, which company has operated the property up to the present time, Oscar V. White being retained as superintendent.

To give an idea of the production of this mine over a period of twelve years the following figures are submitted: Tons of crude ore shipped, 17,870; Gross value, $1,291,728; net value, $933,398. Tons of silver-lead concentrates shipped, 15,594; gross value, $1,229,461; net value, $896,804. Tons of zinc concentrates shipped, 3,445; gross value, $154,061; net value, $45,170. Total gross value, $2,675,430; total net value, $1,875,372.

The mine was closed down in October of this year, shortly after the Trail smelter gave notice that ores containing more than 4 per cent. zinc would not be acceptable. Evidently the affairs of the company could not have been in a very flourishing condition at this time; the creditors became restless on account of the cessation of operations and the company was forced into liquidation. It is to be hoped that a reorganization will be effected and that more funds will be available for further development-work.

McAllister Group.

This, property consisting of four claims—*Silver Queen*, *Silver King*, *Ridgeway*, and *Rouse* Fraction—is situated at a distance of five miles by trail from Three Forks, the nearest shipping-point on the Canadian Pacific Railway. Elevation of camp, 5,625 feet. The trail is in good condition and the property is easily accessible. The group is owned by the McAllister Mining and Milling Company, of which Geo. Clark, of Sandon, is one of the principal parties interested, and who in former years was in charge of the development-work.

A considerable amount of work was done in the past, including surface work, crosscutting, raising, and drifting. That which is of most interest at the present time is about a total of 500

feet of drifting, which exposes a strong and well-defined quartz vein, having a width of from 3 to 5 feet for a length of nearly 200 feet, in the lowest drift. The mineralization consists of tetrahedrite and argentite, with small quantities of galena and iron pyrites. Numerous samples in possession of the owners would indicate good average silver values.

The vein, which almost follows the contour of the hillside, is approached by three crosscut tunnels from the surface; on the upper level, which has been driven too near the surface to allow much backs, 50 feet of drifting has been done; on the next level, 280 feet of drifting; and on the lowest level, 185 feet. The strike of the vein is S. 15° W. and dip 53 degrees to the south-east. The hanging-wall is schist and the foot-wall quartzite.

On the surface the vein can be traced for over 2,000 feet. The formation is typical of the Slocan series, and is cut by a well-defined granite-porphyry dyke which almost parallels the strike of the strata and intersects the vein to the south of the main workings. These dykes are genetically connected with the ore-zones and are of common occurrence in the Slocan district.

The mine-workings are in good shape and the cabins are in first-class repair. Although some high-grade ore can be extracted for shipment, in order to work the property to the best advantage it would be necessary to install a mill, an excellent site for which is available immediately below the mine on the North fork of Carpenter creek; but at present the company is not operating the property.

Owing to the rush of work this season the writer did not have sufficient time at his disposal to either make an extensive examination or to systematically sample the property, but in his opinion it is a property which has possibilities and is worthy of investigation. A considerable length of the vein being uncovered at depth allows sampling to be done, from which a fair idea of the value of the property can be derived and conclusions drawn as to the advisability of continuing operations.

Among the other properties on the North fork of Carpenter creek upon which work was done during 1917 are: The *Milton*, which is owned by S. McGregor and R. McPherson, is said to have a good showing, the formation and the character of the deposit being somewhat similar to that at the *McAllister* group; the *Black Grouse* was worked by G. H. Murhard, and a shipment of 11 tons was made to the Trail smelter; the *Evening Star*, owned by J. D. Ryan, is reported to have had some work done on it; the *Alps and Alturis*, situated near the head-waters of the North fork of Carpenter creek, was worked during the year by W. J. McMillan. The ore is stibnite.

Carnation Group.

A. R. Mann and George Clark are operating this property under a lease and bond. There are five claims in the group—*Violet*, *Violet Fraction*, *Evening*, *Jennie*, and *Carnation*. The elevation of the workings is 6,000 feet and the distance from Sandon by trail is five miles. Development-work was started late in the fall and is being carried on under the direction of George Clark, who has five men working. During 1917 good trails were constructed to the property, and cabins built near the mine, having accommodation for about twenty men.

Previously the only work of any importance on the property consisted of a 20-foot shaft sunk on the ledge, and from which a small quantity of high-grade ore was extracted. An assay in possession of the owners gave: Gold, 0.01 oz.; silver, 70.20 oz.; lead, 80.61 per cent.; zinc, 3.92 per cent. Oxidized ledge-matter, consisting principally of angular fragments of altered country-rock, calcite, and spathic iron, and having a width of about 15 feet, outcrops for a short distance near the shaft. In this material small bunches of galena and zinc-blende occur on the surface, while from the bottom of the shaft I am informed 60 tons was shipped some years ago. Although there is not much ore in sight, indications are sufficiently good to encourage further development-work being done, especially as the showing occurs in a well-mineralized and proven district.

Ruth.—Development carried on during the season was confined to the driving of a long crosscut to tap the vein at a greater depth.

Soho.—J. C. Ryan is carrying on development-work at this property.

Goodenough.—This is one of the old properties upon which extensive development has been done. During the year four men were working.

The following is a list of shippers from this part of the district, giving the approximate amount of ore or concentrates shipped during 1917:—

	Tons.
Surprise Mining Co., lead concentrates	2,228
Surprise Mining Co., zinc concentrates	4,470
Lucky Jim, zinc concentrates	3,000
Slocan Star, silver-lead-zinc concentrates	1,440
Rambler-Cariboo, silver-lead-zinc concentrates	1,300
Queen Bess, silver-lead ore	2,200
Ivanhoe, silver-lead-zinc concentrates	54
Ruth	283
Wonderful, silver-lead ore	250
Sovereign, silver-lead ore	169
Idaho-Alamo, silver-lead ore	164
Freddy Lee, silver-lead ore	69
Goodenough	62
Noonday, silver-lead ore	63
Number One	50
Reco	30
Daniel, silver-lead ore	18
Grey Copper, silver-lead ore	37
Payne, silver-lead ore	21
Black Grouse, silver-lead ore	10
Gem, silver-lead ore	10
Lone Batchelor, silver-lead ore	7
Bon Ton	7

SLOCAN CITY MINING DIVISION.

Although there has not been any pronounced activity in this district during the year, the production compares favourably with that of the previous year.

The following shipments were made to Trail during the year: *Ottawa* group, 182 tons; *Black Prince*, 17 tons; *Meteor*, 14 tons; *Enterprise*, 112 tons.

Lily B. W. A. Buchanan, manager for the property, reports that development-work during the year consisted of completing a 300-foot crosscut to the vein. Drifting is now being done, and they expect to ship in the near future. The values are principally in native silver and tetrahedite. Five men are working.

Evening Star. Work was started on this property under lease and bond in July. M. Maurer is in charge of the work. Shipments are expected to be made shortly.

TROUT LAKE MINING DIVISION.

Elsmere Group. The Circle City Mines, Limited, of which George Brown is president and Norman Ross secretary, owns a group of fourteen claims near the headwaters of Ferguson creek, the names of which are as follows: *Elsmere Nos. 1, 2, 3,* and *4, Pass, Cadle, Alberta Nos. 1* and *2, Victor, Helensburg, Little Robert No. 1,* and *Big Five Nos. 1* and *2.* During the year development-work has been confined to the *Elsmere* group, the workings on which are situated at a distance of approximately ten miles from Trout Lake, the nearest shipping-point. The elevation of the main tunnel is 5,850 feet.

The mine is situated in what is known as the Lime Dyke Belt, which traverses the Trout Lake Division in a south-easterly direction, and which is fully described by Newton W. Emmens in Bulletin No. 2, published by the Department of Mines at Victoria. The ore occurrence is along the contact of a chloritic schist and limestone. Along the line of contact the limestone is metamorphosed, being white in colour and having a finely crystalline structure. The ore is galena carrying silver in varying quantities, a low percentage of zinc, with a small amount of iron pyrites. In the lower tunnel the ore occurs in streaks and irregular-shaped patches, replacing or, rather, impregnating the limestone.

Although some fairly high silver values have been obtained, generally speaking the ore is low in silver contents, and to produce a shipping product concentration will be necessary. An excellent mill-site is available at Circle City, some 2,000 feet below the mine. There is abundant timber in close proximity to the mine. During 1917 eight to ten men were employed, new camp buildings were erected, and a trail built from the mine to Circle City. A small compressor plant was purchased and is on the ground.

The development-work done, as on August 22nd, consisted of two adit-tunnels, the upper of which was driven for a distance of 50 feet along the contact, and near the surface exposes a width of from 2 to 3 feet of medium-grade ore along the bottom of the tunnel between well-defined walls of schist on the south and limestone on the north. The lower tunnel is being driven in limestone, at a vertical distance of 350 feet below the upper, to strike the vein at a point below the exposure in the upper tunnel. This tunnel was in 175 feet, but a considerable distance has yet to be driven to reach the objective point. At a distance of 42 feet from the portal, ore was encountered, and this occurrence, consisting of irregular bunches and streaks in the roof and sides of the drift, was continuous up to the fact. Evidence here of any well-defined boundaries of the ore is lacking, no crosscutting having been done. The strike of the vein is N. 75° W. and conforms with that of the formation; the apparent dip is 56 degrees to the north.

On the surface the contact is well defined, and well-mineralized ledge-matter can be traced for well over 1,000 feet. The property is still in the development stage, and although not enough work has been done to form a definite opinion of the character of the deposit from an economical standpoint, it would appear to be a prospect which has possibilities and on which further work should be done, with a view of developing sufficient ore to justify the erection of a concentrator, which, I understand, is the intention of the company.

Old Gold Group. This property is owned by Conaway & Birch and is being managed by J. M. Miller. For a number of years work has been done on these claims and ore extracted from time to time. The workings are on the Duncan River side of the divide, which separates the Trout Lake from the Ainsworth Mining Division. The natural outlet is by way of the Duncan River valley, but at present the only trail open to this part of the district is from Circle City townsite, over the divide at an altitude of 7,200 feet, and down the other side for about one mile to the camp, the elevation of which is 5,700 feet. The total distance over which the ore has to be packed is thirteen miles to Ferguson; thence by wagon to Trout Lake, a distance of four miles. Hence, in order to ship at a profit, the ore has to be high grade, as the freight charges alone amount to about $25 a ton. The country surrounding the mine is of an extremely rugged nature, the mountain-sides being precipitous and devoid of timber.

The present development-work principally consists of two crosscuts to tap the ore-body and about 139 feet of drifting along the vein, the total amount of tunnelling being about 300 feet. In the upper workings approximately 3 feet of ore is exposed along the drift for a distance of 40 feet, and at the bottom of the 10-foot winze 3 to 4 feet of ore is exposed. Not much drifting has been done in the lower tunnel, but there is a nice showing of ore about 9 inches wide at the end of the crosscut and approximately under the ore exposed in the winze in the upper level. The ore is a massive galena carrying high silver values, fairly free from gangue-matter, and judging by its appearance it is low in zinc and iron. The formation consists of slates and graphitic schists, with intermittent narrow bands of limestone.

The strata have a dip of 50 degrees and a strike of N. 57° W. The ore apparently occurs along the contact of the schists and limestone, and it would appear to replace the limestone. Eight to ten men were steadily employed during the season. Some 28 tons of ore was packed out last fall.

Among other properties which have been operated during 1917 are the following:—

Triune.—Operated by the Minnesota Gold and Silver Mining and Manufacturing Company; R. H. Batty, manager. During the year development-work was carried on and a number of men employed. A trial shipment of 28 tons was sent to Trail.

Towser.—Five men have been employed steadily. Shipment to Trail, 25 tons.

Nettie L.—The property is being worked under lease by McLaren, White & Cameron. Shipment to Trail, 25 tons.

Ethel.—Three men were engaged during the year. Ore is being rawhided down this winter. Shipment to Trail, 9 tons.

Florence.—Development-work is being carried on by the Minnesota Gold and Silver Mining and Manufacturing Company.

Foggy Day.—Shipped 26 tons.

Black Eagle.—J. Livingstone is doing some work on this property.

Crescent.—The Mansfield Mining Company had four men working during the year.

Fidelity Group.—Two men were working during the summer; ore is being rawhided down this winter. Shipment to Trail, 5 tons.

Copper Chief. A considerable amount of work was done on this property during the year under the direction of R. D. Fetherstonhaugh, M.E. Two trial shipments were made to Trail. The first one of about 5 tons gave the following result: Silver, 241.4 oz.; lead, 12.8 per cent.; zinc, 23 per cent. A second shipment of 6 tons was made in the nature of an experiment to see how much ledge-matter could be included to do away with hand-sorting. The following results were obtained: Silver, 63.8 oz.; lead, 7.1 per cent.; zinc, 6.7 per cent.

Molybdenite is reported to occur on the property, but not enough work has been done to demonstrate the value of the showing. Owing to lack of funds for the continuance of the development-work the property closed down in the fall.

NELSON MINING DIVISION.

Bayonne District.

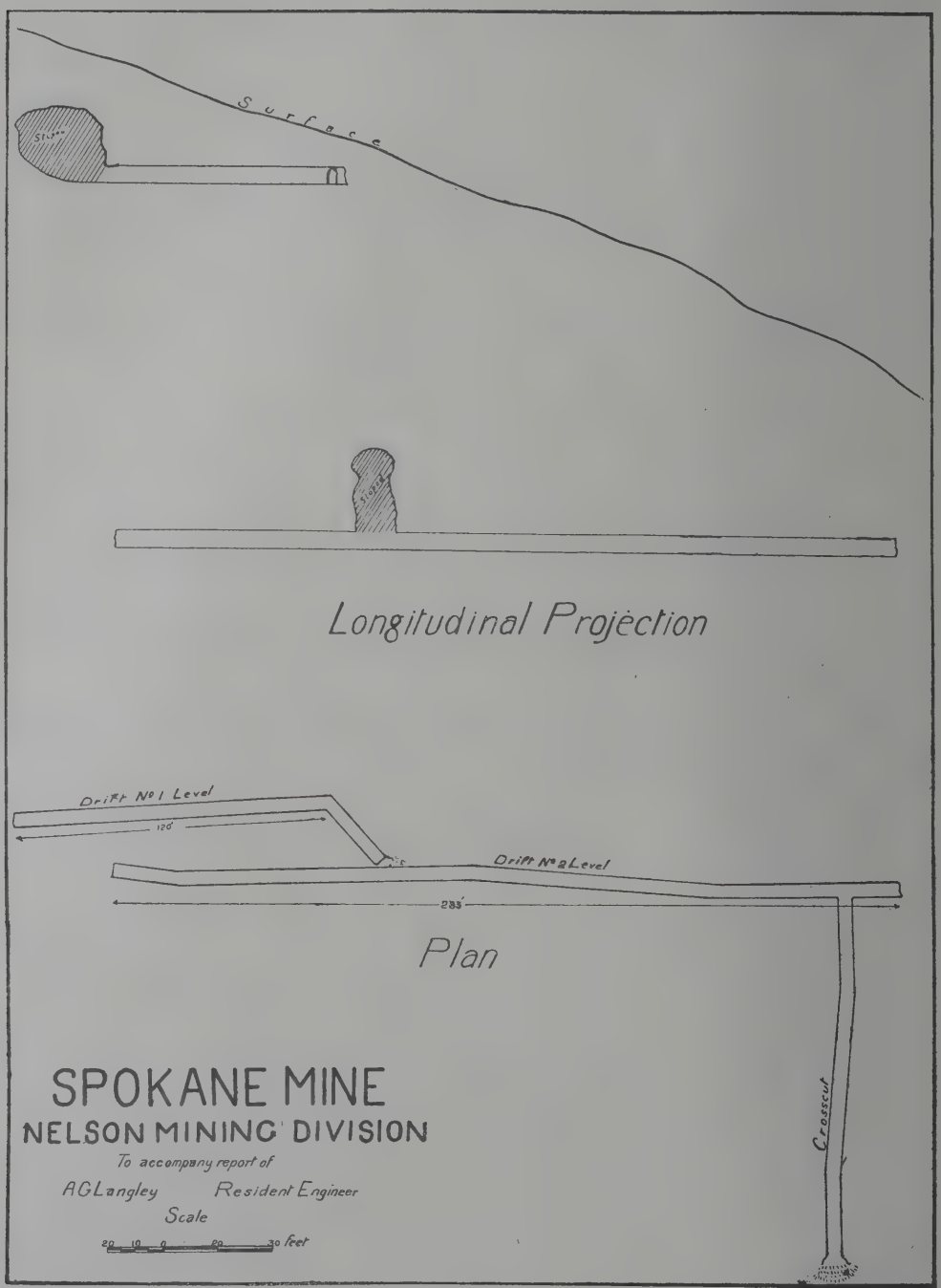
Spokane Group. This property, consisting of six claims—*Granite, Spokane No. 1, Spokane, Continental, International,* and *Timberline*—is owned by the Laib Bros., of Salmo, who staked it in 1911. The elevation of the mine-workings is 6,100 feet. The present means of access is by wagon-road up Sheep creek from Salmo for a distance of eleven miles, and then by trail over the divide at the head of Sheep creek for a distance of about eight miles. Between the end of the wagon-road and the summit the trail, which zigzags up the mountain-side, climbs to an altitude of 6,500 feet. Down the other side of the summit the trail is steep and rocky for a short distance, but for the balance of the way to the *Spokane* group it is of good grade and in good condition.

The mountains forming the sides of the wide U-shaped valley which is drained by Canyon creek present an even sky-line, and few high peaks are conspicuous. The slopes have an angle of about 30 degrees, and are well timbered and covered with overburden, on which there is a thick growth of underbrush.

The formation, which is granodiorite, covers an area of some hundred square miles, and large angular boulders which have been eroded from the summits of the ridges have formed numerous rock-slides, which are characteristic of the scenery around the *Spokane* and *Bayonne* groups.

The vein on the Spokane group, which has been systematically and well developed by the Laib Bros., may be classified as a fissure-vein in granodiorite, which would appear to be partly formed by replacement along a joint fracture. The vein, which has an average width of 2.5 feet, strikes east and west and dips at 80 degrees to the south. The underground workings show the vein between well-defined and clean-cut walls to be composed of oxidized and leached country-rock, with ribboned and shattered quartz running through it. Occasional inclusions of altered granite are noticeable in the vein, as are also several small micaceous dykes which cut the vein, but do not otherwise have any effect on its continuity or mineralization. The metallic contents are gold, silver, lead, and zinc, the gold values predominating. The ore is a mixture of argentiferous galena, iron pyrites, quartz carrying free gold, and a little zinc-blende and carbonates.

As the property has been thoroughly sampled by competent engineers, only a few check samples were taken. In the upper tunnel three samples were taken at intervals of 40 feet, and gave an average value of: Gold, 1.50 oz.; silver, 18.78 oz. The average width across which these samples were taken is 2.3 feet. In the lower tunnel five samples were taken at intervals of 60 feet, and gave an average value of: Gold, 0.206 oz.; silver, 3.15 oz., across an average width of 3 feet. The lead and zinc assays were not made, but the ore carries, besides the gold and silver values, 7 to 11 per cent. lead and 2 to 2.5 per cent. zinc, and the mine-run has a value at present market prices of from $22 to $24 a ton.


Surface
Shaft
Longitudinal Projection
Drift No 1 Level
120'
Drift No 2 Level
235'
Plan
SPOKANE MINE
NELSON MINING DIVISION
To accompany report of
A G Langley Resident Engineer
Scale
20 10 0 20 30 feet
Crosscut

Wall Mountain. Arkansas Lake in Foreground.

Old Gold Mine, looking down Valley.

The development-work has been carried out by means of two adit-tunnels. There is 120 feet of drifting along the vein in the upper tunnel and 285 feet in the lower. The vertical distance between the two tunnels is 135 feet.

Presuming that the vein carries its width between the two tunnels, it is reasonable to assume that there are between 4,000 and 5,000 tons in this section of the vein, while there is the possibility of winning 3,000 to 5,000 tons from that section of the vein which lies between the lower tunnel and the surface. The vein can be traced by means of small open-cuts on the surface for a considerable distance, but, except for showing the strike to be persistent, the work done has not been sufficient to enable one to attach any economic importance to the surface showings. It would indicate that further underground development might be done to advantage by continuing the present drifts.

In order to handle the output of this mine to the best advantage it will be necessary to install a mill, an excellent site for which is available on Canyon creek at a short distance from and 900 feet below the mine-workings. Laib Bros. are continuing with the development of the property this winter.

Transportation facilities are a serious handicap to the property at present. The packing charges over the divide to the Sheep Creek road are prohibitive. The only feasible route from the mine to transportation facilities is down Canyon creek for a distance of about six miles, then over Low pass and down the valley of Cultus creek to Kootenay lake, a total distance of seventeen miles, over which a good uniform grade is obtainable.

Harris. This property adjoins the *Spokane* group on the west. An open-cut exposes a small quartz vein having a width of about 6 inches, the strike of which is N. 77° W. It is slightly mineralized with galena and iron pyrites. This is probably the continuation of the *Spokane* vein.

Diamond Dick. This property, belonging to Alex. Stuart and McDonald, is situated on the ridge of Arkansas mountain, at an elevation of 6,900 feet. Numerous open-cuts and a small tunnel expose a small though persistent quartz vein in granite, with a width varying from a few inches to 15 inches. The quartz-filling of the vein is stained with oxide of iron and in places is honeycombed.

Bayonne. No work has been done since J. D. Galloway reported on the property in 1915. It is undoubtedly a property which has great merit, and it seems extraordinary that it should have remained idle for long. A sample taken across a width of 4.5 feet in the *Ohio* tunnel assayed: Gold, 1.96 oz.; silver, 4.60 oz. A sample of 125 tons of dump at *Ohio* tunnel: Gold, 1.42 oz.; silver, 2 oz. A sample of 50 tons of dump at *Bayonne* tunnel: Gold, 0.60 oz.; silver, 2.6 oz.

Montana. This claim is located at the head of the North fork of Summit creek and at a distance of about a mile in a north-easterly direction from the *Bayonne* mine. The elevation of the property is 6,600 feet. The surface of the claim is covered with large granite boulders. Numerous open-cuts expose the vein at intervals for a distance of about 500 feet; the width is 10 inches, the strike N. 80° W., and the dip 58 degrees. The vein-filling is quartz, with small quantities of galena and iron pyrites. A sample taken across an 8-inch width in a small shaft gave the following returns: Gold, 0.16 oz.; silver, 0.54 oz. A sample of selected ore on the dump ran: Gold, 0.10 oz.; silver, 4.40 oz.; lead, 24.5 per cent.

Maggie Aitkens, Summit Bell, and Michigan.—These claims are situated about one mile down the North fork from the *Montana*. The elevation of the tunnel on this property is 5,885 feet. The ore occurs as galena, iron pyrites, and probably free gold in a quartz vein. The country-rock is granite, which is altered in the vicinity of the vein and is stained red with oxide of iron. There has been a considerable amount of movement along the line of fracture, and the vein appears to be faulted and broken. The width of the vein varies from a few inches to 2.5 feet. A sample across a width of 2.3 feet at the face of the tunnel gave no values. A sample of selected ore on the dump ran: Gold, 2.94 oz.; silver, 1.9 oz. The principal work done consists of 120 feet of drifting along the vein. This property was examined under the disadvantages of having little time on the ground, and not having any one with me who was thoroughly familiar with what had been done.

Iva Fern Group. This group, consisting of seven claims, is situated on the north side of Cultus creek, at a distance of about seven miles from Kootenay lake. The property is owned by J. Mullholland, of Sirdar, B.C. In the vicinity of the

workings the hillside has a fairly uniform slope which is covered with overburden, and on which there is ample timber for all requirements. The workings are situated near the top of the hill at an elevation of 5,735 feet, or 1,870 feet above Cultus creek, where there is abundant water-power available.

The formation is of sedimentary origin, composed of shales and schists, and is cut by intrusive dykes which are said to run parallel to the formation, but the short time that the writer had on the property did not allow a surface reconnaissance to be made in order to trace the geology or to identify the various surface showings of ore with the vein system.

The work done consisted of a number of open-cuts, which in every case showed a width of ore from 1 to 6 feet, but on account of the heavy covering of overburden it was difficult to definitely determine the nature of the walls and the dip and strike of the strata, which latter, as far as could be ascertained, was approximately north and south. However, with only the cursory examination that was made, it was quite evident that the surface showings and general conditions were encouraging and fully warranted the further exploitation of the property.

At the lowest exposure the ore consisted of a mixture of galena, a little chalcopyrite, and iron pyrites occurring in oxidized ledge-matter; at the upper workings the ore was principally galena. A sample taken at the lowest showing, across a width of 6 feet, gave the following returns: Gold, trace; silver, 3.50 oz.; lead, 5 per cent. Farther up the hill a sample across a width of 2.5 feet gave: Gold, 0.02 oz.; silver, 3.40 oz.; lead, 22 per cent.; while at a short distance from this, on the summit of the hill, a sample across a width of 2 feet gave: Gold, trace; silver, 1.80 oz.; lead, 10 per cent.

During the summer development-work was carried on, and according to recent reports the property has now been bonded by the Consolidated Mining and Smelting Company.

In connection with the occurrence of sedimentary rocks in this section, it may be of interest to note that this belt of schists and slates, bounded by the granite formation on the east and west, extends southward across Cultus creek and apparently forms the saddle of the Low Pass divide; and, further, it has been reported that the same character of ore has been found in the vicinity of the Low pass on a group of claims owned by C. O. Woodward, R. J. Elliot, and others, of Nelson.

YMIR CAMP.

Yankee Girl.

The Hobson Silver Lead Company, of which W. T. McDowell is manager, has been actively engaged in the mining and development of this property during the year, with results that apparently are highly satisfactory. The work done during the year consists of approximately 450 feet of drifting on the vein and 185 feet of crosscutting.

The manager reports that an ore-body consisting of lenses of heavy sulphides was developed near the end of the drift, and stoping was commenced on this at a distance of 35 feet from the face. The stope at present extends 65 feet above the drift and is 55 feet long. The ore, which is reported to have a width of 6 feet, runs about 8 per cent. zinc, 25 per cent. pyrite, and pyrrhotite carrying gold and silver values, which show average returns of $17.50 a ton. Since September 18th fifty-five cars having a total dry weight of 2,300 tons have been shipped to the Canada Copper Corporation at Greenwood.

Pat, Carthage, Wildhorse, and X-Ray Claims.

This group of claims, which is situated along the east side of the gulch formed by the North fork of Wildhorse creek, is at about the same elevation as the *Ymir* mine, and covers the hillside where an easterly extension of the *Ymir* vein would be expected to occur. The remains of a wagon-road from the *Ymir* mill up the North fork as far as the *Pat* claim are in evidence, but the greater portion of this road has been washed out.

At the *Ymir* mine the ore occurred as a large lenticular shoot in a strong and well-defined quartz vein. Although the workings extend down to the 1,000-foot level, on which a lot of drifting has been done on the vein, the values were found to decrease with depth, and no ore of any economic importance was discovered below the 700-foot level. The management, after prospecting without success for another vein higher up the hill, the presence of which was indicated by the discovery of rich float, closed down the mine in 1908.

From the intersection of the adit-tunnel and the vein on the 1,000-foot level drifting has been done along the vein for nearly 1,000 feet. The vein exposed in this drift is 9 feet wide

Old Gold Mine, Pack-train, Nelson M.D.

Spokane Mine, Pack-train at Camp, Nelson M.D.

and is composed of a massive bluish quartz. As the easterly face is approached the vein gradually gets smaller, splits, and pinches out. The ore at the *Ymir* consisted essentially of an auriferous galena associated with iron pyrites and zinc-blende.

Pat. This claim is located on the North fork of Wildhorse creek. The prospecting-work done here consists of 140 feet of tunnelling and a few shallow open-cuts. There is no evidence of the existence of a vein on this property, either in the tunnel or on the surface. Across the creek and almost opposite the tunnel on the *Pat* a tunnel has been driven for a distance of 72 feet in a crushed and slickensided slate; with the exception of a little quartz near the portal, no vein-matter was encountered. A sample taken of this quartz gave: Gold, 0.14 oz.; silver, 0.2 oz. The hillside above the *Pat* is covered with thick underbrush, which made it somewhat difficult to find the old workings of the *Carthage*, which are located higher up the hill.

Carthage. The lower tunnel is at an elevation of 900 feet above the *Ymir* mill. The length of the tunnel is 150 feet and is timbered within 30 feet of the face. The last 30 feet is in waste. The upper tunnel is 1,350 feet above the *Ymir* mill and is said to be 250 feet long. Unfortunately it has caved, and I was unable to examine it.

The following is an extract from C. W. Drysdale's report, referring to the geology at the *Carthage:* "The country-rock is Pend d'Oreille schist, much of it andalusite schist due to the contact metamorphism caused by the near-by Nelson batholith. Spotted porphyry dykes are also found intrusive in the schists. The veins, many of which are parallel and strike with the schists, contain slightly mineralized blue quartz. They penetrate the crumpled schist and end in sharp tongue-like terminations."

A sample taken across a small exposure of the ledge immediately above the portal of the tunnel gave no values. Going down and around the hillside in the direction of the *Wildhorse* claim, a small open-cut was noticed. This was driven for about 8 feet and exposed 18 inches of quartz on the foot-wall and about 2 feet on the hanging, separated by about 6 feet of crushed slate. The vein consisted of bluish quartz carrying iron pyrites. A sample taken here gave 0.04 oz. gold.

The *Wildhorse* claim is located in the zone of contact of the Nelson batholith and the Pend d'Oreille formation. The zone is characterized by tongues of granite cutting the sedimentaries, which are greatly metamorphosed near the contact. Some of the most important mineral discoveries in this and the Sheep Creek district have been made along the line of this contact. From the vicinity of these claims the zone of contact can be traced in a south-westerly direction to the *Yankee Girl* and *Dundee* groups. In these deposits the ore occurs in the granite at its intersection with the fissure-vein.

The workings on the *Wildhorse*, which consist of a few small open-cuts and a short tunnel, expose a quartz similar to that found in this locality—namely, bluish in colour, carrying a little iron pyrite and zinc-blende; no galena was noticed. At the entrance to the tunnel there is a strong blow-out of quartz carrying iron pyrite and zinc-blende; a sample was taken across a 6-foot width of vein here which gave 0.02 oz. gold. Another sample was taken of the quartz at one of the open-cuts which gave 0.06 oz. gold.

Ovid Poulin, who showed me over the properties, is very familiar with the district, but did not know of any workings on the *X-ray* claim. Upon going over the claim we found it densely covered with underbrush, and the only sign of a trail was that leading to the cabin from the *Wildhorse* claim, and from the cabin to the creek. The only cabin left standing on any of these claims is that on the *X-ray*, which is in fairly good condition.

Summary.

The *Ymir* vein is exposed along a uniform dip and strike for over 1,000 feet by underground workings. The ore was found in one large lenticular shoot, the rest of the vein being very low in values. The richest ore occurred near the surface. Should the vein have been faulted, the throw was probably to the east; hence it would be reasonable to look for an extension in an easterly direction across the creek.

Indications on the *Wildhorse* claim are more encouraging than those on the *Pat* or the *Carthage*, and the formation here is more favourable for the finding of mineral, but as to whether another shoot such as that found in the *Ymir* exists in this direction is highly problematical,

for, even if an extension of the *Ymir* vein is discovered, it does not follow that it will be highly mineralized. The assay returns of the few samples taken are not encouraging.

SHEEP CREEK CAMP.

Emerald. This property has been a steady producer during 1917 and has shipped more ore than any other mine in the district. Development-work during the year has opened up a large body of ore on the lower level. With the result that there is sufficient ore in sight to ensure steady shipments being made for some time to come, providing market conditions are favourable. The mine-run averages about: Lead, 27 per cent.; zinc, 5 to 6 per cent.; silver, 1½ oz.

Other development-work includes the building of one mile and a half of road from the *Emerald* camp to the *Jersey Lily* group, on which recent development-work has been done. About forty-five men were steadily employed during the season. Shipments to Trail total for the year, 4,448 tons.

Southern Bell Group.—C. E. Wilson, of Salmo, has done a considerable amount of work on this property and is reported to have a good showing. The ore is argentiferous galena.

Relief. This mine is situated at Erie. A. D. Westby, the manager, reports that mining and development work have been carried on during the year. The cyanide plant has been closed during 1917 owing to the inability of being able to secure cyanide, zinc shavings, and other chemicals. New equipment, including a concentrating and sliming table, an amalgamator, and a 45-horse-power gas-engine, has been recently purchased, with the idea of saving the free gold and shipping the concentrates until such time as they can again operate their cyanide plant.

H.B. During the year 1,500 tons of zinc ore was shipped, having an average value of 32.7 per cent. zinc. The ore occurs principally as a zinc carbonate. The mine was temporarily closed down during the latter part of the year.

Aspen. This property was examined with a view to ascertaining the justification of Government assistance for the widening of the present trail. The property is situated near the headwaters of Deer creek, in the Nelson Mining Division, and at an elevation of 5,200 feet. It consists of eight claims and is owned by P. F. Horton, of Salmo; E. W. Rawson, of Vancouver; and Mrs. W. H. Billings, of Salmo.

Shoots of ore occur in a vein in the Pend d'Oreille limestones. The strike of the vein is S. 20° E., with an apparent dip of 50 degrees to the east. The vein shows continuity and the walls are well defined. The ore occurrence is found to exist in the limestones near the contact of the granitic batholith. The formation is somewhat similar to that at the *Emerald* mine.

From discoveries that have been made there appears to be a mineralized zone extending in a south-westerly direction from near the *Aspen* group to the International Boundary. This zone is characterized by the occurrence of the Pend d'Oreille limestones along or near a granite contact, and in my opinion is likely to prove one of the most economically important mineral-bearing zones in this district.

Recent development-work has been confined to open-cuts. A shoot of ore having an apparent length of 60 feet has been crosscut by open-cuts. Owing to the short time I had at my disposal for the examination of this property, I will not attempt to write a detailed description of the workings or of the character of the ore-bodies, upon which not enough work has been done to enable one to form any accurate idea of the exact nature of the deposit or of the definite boundaries of the ore without spending some time on the property. There is, however, a considerable tonnage of ore available for shipment which can be extracted at small mining cost, but will have to be hand-sorted. The ore is said to average about as follows: Gold, 0.04 oz.; silver, 26.4 oz.; zinc, 5 per cent. A sample taken across 6 feet assayed: Gold, 0.04 oz.; silver, 19.5 oz.; zinc, 10.5 per cent. Another from a small pile of sorted ore gave: Gold, 0.68 oz.; silver, 123.4 oz.; zinc, 6 per cent. The gangue is high in silica and lime and therefore suitable for fluxing. It is claimed that the zinc can be eliminated by careful sorting, and trouble from this source is not anticipated.

Ore Hill. The *Ore Hill* mine is situated on Coon creek at an elevation of 5,200 feet, or 2,100 feet above Sheep creek. There are five claims in the group—*Ore Hill*, *Ore Hill No. 3*, *Dixie*, *Standard*, and *Last Dollar Fraction*. The property is

principally owned by Dr. Ittel, of Minneapolis, and is leased by C. H. Cassell, of Oranda, Wash.; Mr. Dewitt is managing the property.

A nice showing of ore is exposed in two open-cuts along the strike of the vein. At the No. 1 open-cut I was unable to examine the face at close quarters on account of danger from caving, but noticed good ore along the wall and in the bottom of the cut. At the No. 2 open-cut, which is some 50 feet below the No. 1, there was a width of 4 feet of ore in the face, and it also showed in the walls. A sample taken here from a dump of ore selected for shipment assayed: Gold, 0.20 oz.; silver, 8 oz.; lead, 22 per cent.; zinc, 27 per cent. Not sufficient work has been done at the surface working to enable one to determine the definite boundaries or character of this deposit.

Proceeding down the hill the vein is well defined in another open-cut along a length of 40 feet. The width of the pay-streak here is 20 inches. The lowest assay taken at this place was said to run $73, the values being in gold, silver, and lead. A sample taken from a dump of selected ore for shipment gave: Gold, 0.06 oz.; silver, 10.2 oz.; lead, 37 per cent.; zinc, 12.7 per cent. Below this outcrop a crosscut has been driven, which cuts the vein along which some drifting has been done. The ore occurs in a vein in crystalline limestone. The vein shows continuity and has a strike of N. 25° E. and a dip of 65 degrees to the west, which, however, does not appear to be uniform. The ore consists of galena, iron pyrites, and sphalerite. There are between 100 and 125 tons of milling and shipping ore on the dumps. Six men are employed on the property.

A small 7-ton mill has been installed. This plant consists of a small crusher, a 2-battery stamp-mill, a No. 6 Wilfley table, and a Johnstone Frue vanner. When water is sufficiently plentiful the plant will be operated by Pelton wheels, and in a dry season by a gasolene-engine. At this date (October 10th) they are short of water and are waiting the delivery of their power plant. Six men are employed.

Hall's Siding.

Lost Cabin Group. This property is under lease and bond to Frank Stoner, of Chokeville, Wyoming. Mining operations have been carried on under the direction of F. H. Shoemaker. Two men have been steadily employed and work will be carried on all winter. Average assays across a 20-foot width of vein on the surface are said to show a value of $50, the principal values being in gold and silver.

Monarch Group. This group, consisting of seven claims, belongs to J. Fisher and S. E. Coulter, of Rossland. The claims are situated at an elevation of 5,000 feet, near the head of Keno creek, and are accessible by trail from Hall's Siding, a distance of three miles. Recent work has been confined to driving a tunnel and open-cut work near the cabin.

The lowest open-cut reveals the country-rock to be slightly mineralized in patches, with chalcopyrite associated with pyrrhotite, the latter predominating. At a short distance up the hillside another open-cut exhibits similar conditions. A tunnel has been driven for a distance of 79 feet in a hard diorite porphyrite, the idea being to get under the showing at the upper open-cut. The tunnel has been driven too much to the south, and it will be necessary to run a short crosscut from the end of it to reach the objective point.

An old 40-foot shaft sunk years ago on the *Monarch* claim has recently been retimbered. This shaft was sunk on the flat top of the mountain ridge, at about 1,000 feet from and 600 feet above the other workings. The bottom of the shaft is in a very hard igneous rock resembling an altered diabase, in which pyrrhotite and chalcopyrite are disseminated, but apparently not in a sufficient amount to be of economic importance.

A sample taken along the bottom of an open-cut near the shaft gave the following values: Gold, trace; silver, 1.6 oz.; copper, 0.6 per cent. The formation is of volcanic origin and belongs to the Rossland series. The mineralization occurs near the contact of an augite porphyrite and a fine-grain diabase rock.

Other Properties.

Orinoco. M. Egan and partner made a shipment of 66 tons to the Greenwood smelter. The assay values ran as follows: Silver, 0.73 oz.; copper, 2.5 per cent.

California. Development-work, which is being carried on under the direction of W. H. Turner, consists of running a 1,000-foot drift to get under the ore-bodies exposed on the Nos. 1 and 2 levels. The depth gained will be 200 feet. The principal values are in gold, which is associated with lead and zinc.

Eureka. Recent work has been confined to improving the transportation facilities by building a short tramway to connect the mine with a new road to the upper terminal of the *Granite-Poorman* tramway, and extending this tramway across the Kootenay river to connect with the Canadian Pacific Railway. Shipments made to Trail last spring total 1,240 tons.

Granite-Poorman. This property was operating during the summer, but closed down in the fall. The principal values are in gold. The ore was treated by a 20-stamp mill; 84 tons of concentrates was shipped to Trail.

Monarch. This group, consisting of seven claims, is situated at an elevation of 3,800 feet and at a distance of about one mile and a half north of Beasley Station, on the Canadian Pacific Railway; it is being operated by the Spokane Mining and Development Corporation, of Nelson. Previous work done on the property consisted of a 30-foot shaft and a few open-cuts. Prospecting has been confined to a band of buff-coloured garnetite, which occurs near the contact of the granite and sedimentary rocks. The ore occurs as chalcopyrite, associated with pyrrhotite and iron pyrites, impregnating the garnetite in irregular patches, also in small fault fissure-veins in a quartz gangue stained with epidote. The formation bears evidence of contact metamorphism, and general conditions would appear to fully justify more development being done by means of open-cuts and surface trenching in the vicinity of the line of contact, which lies at a short distance to the west of the present workings.

A sample taken from a small dump of ore extracted from near the old shaft ran as follows: Gold, trace; silver, 0.4 oz.; copper, 1.6 per cent. This dump was a miscellaneous mixture of waste and ore, and much better returns could be obtained by sorting. Since visiting the property on October 22nd development-work has been continued, and two or three car-loads of ore have been shipped to Trail.

Silver King. The Consolidated Mining and Smelting Company, which owns this group, has recently placed a diamond-drill on the ground after having done preparatory development-work during the summer.

Molly Gibson. This property was operated during the summer by the Consolidated Mining and Smelting Company. Shipments to Trail, 367 tons ore.

TRAIL CREEK MINING DIVISION.

The Trail Creek Mining Division has only one important productive camp, that of Rossland, but this one is so important as to be the greatest lode-gold producing section of the Province. At the town of Trail are situated also the extensive smelting and refining plants of the Consolidated Mining and Smelting Company of Canada. This company is the most important mining company in the southern interior of British Columbia, and the smelting plant also draws custom ore from a large district.

CONSOLIDATED COMPANY.

The following extracts from the report of J. J. Warren, managing director, which appears in the annual report of the company for the fiscal year ended September 30th, 1917, will throw some light on the company's financial affairs, and reveal the magnitude of the company's operations:—

"*Capitalization.*—The authorized capital of the company is $15,000,000, in 600,000 shares of $25 each par value. Of this amount, 419,098 shares have been issued, with a total par value of $10,477,450.

"*Earnings.*—The company earned during the fiscal year ending September 30th, 1917, a net profit of $1,076,828. This includes $150,000 from the West Kootenay Light and Power Company. The earnings in 1916 were $996,496. The percentage of earnings was about the same in each year, which is accounted for by the increase of capitalization in 1917.

"*Value of Plants.*—The value of the mining, smelting, and mining plants was increased by $794,825, which after writing off $648,058 for depreciation represents an investment of $4,867,505.

"*Value of Mines.*—The value of the company's investment in mines, mineral claims, and shares in other companies shows an increase of $338,558, and now represents a total investment of $7,303,443.

"*Total Assets.*—The total assets for 1917 are placed at $16,994,568, which is an increase of $1,980,340 over the preceding year.

"*Ores and Metal on hand.*—Pig lead on hand was worth $29,242, while ore and metals on hand or in transit to the smelter on September 30th represented a value of $2,586,421.

"*Total receipts* were $15,533,076, as compared with $10,032,878 for 1916.

"*Ore and Metal purchased.*—Customs ore, lead, and bullion purchased during the year had a value of $5,899,082.

"*Sales.*—Sales of smelter product, ore, etc., amounted to $12,700,971. Freight paid on the ore from the company's mines during the year was $286,972. Expenditures on the mines amounted to $4,530,599, exclusive of development expenses, which were $380,071. The expenditures on the various properties were as follows: *Sullivan*, $429,204; *Molly Gibson*, $22,562; *Richmond-Eureka*, $777; *Maestro*, $6,537; *Highland*, $72,315; *No. 1*, $813; *St. Eugene*, $33,237; *Le Roi*, $186,361; *Centre Star*, $209,898; *No. 7*, $1,552; *Lucky Thought*, $14,992; *Emma*, $75,324; *Ottawa*, $14,150; *White Bear*, $4,961."

Rossland Camp.

According to the report of W. M. Archibald, mine manager of the Consolidated Mining and Smelting Company, since 1894 to date the *Centre Star-War Eagle* has produced 2,611,143 tons; *Le Roi*, 2,007,626 tons. Underground development at the *Centre Star-War Eagle* has reached 40.10 miles; *Le Roi*, 17.10 miles.

No material change in Rossland ore reserves occurred during the year, but promising new territory was opened up with good possibilities.

Owing to coke shortage the shipments of gold-copper ores from Rossland mines were irregular and curtailed, amounting to only about one-fourth of the normal output.

It may be of interest to point out that during the previous four years the average annual gold production of the camp is nearly 60 per cent. of that of the whole Province.

The following table gives a comparison of shipments made during the last two years:—

	1916. Tons.	1917. Tons.
Centre Star	163,000	36,890
Le Roi group	130,000	49,827
Josie group	15,800	11,803
Velvet	124	...
White Bear	...	1,506
I.X.L.	...	8
Mountain Chief	...	137
Totals	308,924	100,171

The Mountain Chief Group.—This property is situated at Renata. A considerable amount of prospecting has been done, disclosing irregular ore-bodies in a limestone formation. The average value of the ore is $14 a ton, the values being in copper and silver.

The Trail Smelter.

The Consolidated Mining and Smelting Company of Canada, Limited, Trail, British Columbia, is now producing on a commercial scale five refined metals—namely, gold, silver, copper, zinc, and lead—as well as bluestone, sulphuric acid, and hydrofluosilicic acid at the Trail plant.

During the last year the zinc plant has been completed, and has a capacity of from 60 to 70 tons a day of spelter, working on high-grade zinc ores. The ores treated, however, are, in the main, very low in zinc, so that the capacity of the plant is thereby reduced, the best tonnage to date being 62 tons a day.

The zinc plant contains: Two driers; three 18- x 5-foot ball-mills; thirteen 7-deck, 25-foot Wedge roasters; a large leaching building where the ores are leached by counter-current continuous process in Pachuca tanks and thickened in Dorr thickeners, purified in Pachuca tanks, and filtered through Kelly & Oliver filters; electrolyzing-tank rooms where the solutions

are electrolyzed in concrete electrolytic tanks; thirteen 1,000-kw. motor-generator sets; the necessary transformer plant to reduce the 60,000-volt current with which the plant is supplied; and a melting plant with two reverberatory furnaces for melting the cathode zinc.

The copper plant is, primarily, a gold-copper plant for the treatment of Rossland ores. The copper tonnage is small.

The copper-smelter consists of the necessary ore-bins; two 35-foot and two 25-foot furnaces; two 12-foot Great Falls type converters.

The refinery was originally built to refine 10 tons of copper a day. It was found necessary during the year to double this capacity.

Owing mainly to increased production of customs lead ore, it has been found necessary to increase the roasting capacity in the lead-smelter. This equipment now consists of three 7-hearth, 25-foot Wedge roasters; five single-hearth Godfrey roasters; thirty-two Huntington-Heberlein converters; and three Dwight & Lloyd sintering-machines.

The lead-smelter consists of the necessary ore and roast bins, four blast-furnaces, drossing-kettles, and an anode casting-machine.

The lead-refinery, which is an electrolytic Betts process plant, has a capacity of approximately 100 tons pig lead a day.

During the year a concentrator with daily capacity of 400 tons has been built. This mill is equipped with a 6- x 6-foot ball-mill; a standard 24-inch, 17-cell Minerals Separation machine; concentrating-tables, filters, thickeners, etc. This mill has been working on the concentration of the low-grade zinc-lead ores from the *Sullivan* mine.

Since the company took over the plant in 1894, 5,179,307 tons of all classes of ores have been treated, with a gross value of $94,315,754 and yielding 1,778,921 oz. gold, 27,500,350 oz. silver, 458,326,524 lb. lead, 75,047,410 lb. copper, and 23,056,996 lb. zinc.

During the fiscal year 10,000 tons zinc was produced, representing a value of $3,000,000, marking an epoch in the metallurgical history of Canada; while the production of lead amounted to 22,000 tons, exceeding that of last year by 2,000 tons.

The year's output of sulphuric acid reached 2,878.7 tons of 100-per-cent. product. The capacity has been doubled and a daily output of 30 tons established.

Hydrofluosilicic acid was produced to the extent of 196 tons, and installation of new retorts designed to double capacity is being made.

ARROW LAKE MINING DIVISION.

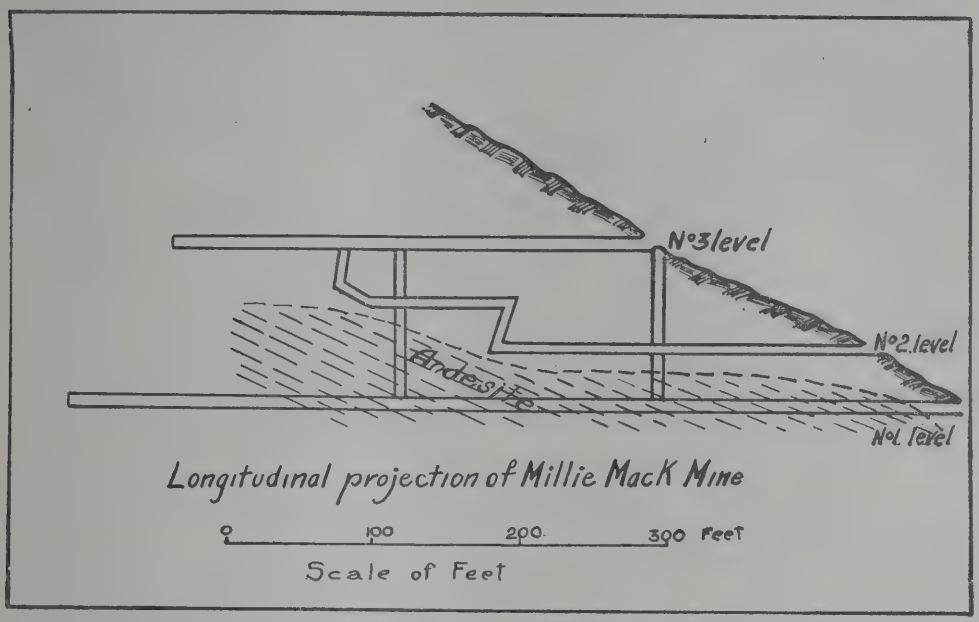
Millie Mack.

The property consists of six claims—*Millie Mack*, *Impregnable*, *Triumph*, *Wolf*, *Gold Ring*, and *Rainbow Quartz*. The mine is situated at an elevation of 6,300 feet and at a distance of twelve miles from Burton City, in the Arrow Lake Mining Division. H. E. Forster, of Wilmer, is the sole owner of the property. The camp consists of two good cabins with sufficient accommodation for eight men. Work was first commenced on this property in 1897, and since 1904 the property has been worked continually. A considerable amount of money has been spent on development-work and on improving the transportation facilities.

The Character of the Deposit.—Fragments of a quartz vein occur irregularly in a sheared and crushed zone of graphitic slates. This zone, lying nearly horizontal on an igneous rock classified as an andesite, is between 60 and 100 feet thick, and apparently marks the line of contact between the igneous and sedimentary rocks. Syenite porphyry dykes cut the formation at various angles. The steep slope of the mountain-side, together with the sheared and crushed nature of the formation in which fragments of the vein occur, would indicate that there has been a break near the surface, accompanied by a sliding movement downwards on the base of andesite, and that the vein may possibly be found to be in-place farther in and at a greater depth under the mountain.

The ore is a complex mixture of galena, zinc-blende, and iron sulphides carrying gold and silver values. The average values of previous shipments ran: Silver, 110 oz.; gold, 1.55 oz.; lead, 11.7 per cent.; zinc, 8 per cent.

No. 1 tunnel has been driven for a distance of about 700 feet in the andesite which forms the foot-wall of the crushed zone. No ore was encountered in this tunnel, but it may be of use at some future time either as a shipping-tunnel or for further development.



No. 2 tunnel has been driven for a distance of 265 feet and is 40 feet above No. 1. In this tunnel ore was encountered in the graphitic slates.

No. 3 tunnel is 70 feet above No. 2 and discloses the same formation. The length of this tunnel is 320 feet.

Sample No. 11651 was taken from a pile of 8 tons of sorted ore for shipment, and sample No. 11652 from a 4-ton pile, which contained more iron than the usual run of the mine; the assay results were:—

Sample No.	Gold.	Silver.	Lead.	Zinc.
	Oz.	Oz.	Per Cent.	Per Cent.
11651	1.74	54.3	11.2	14.5
11652	2.20	50.4	24.0	8.0

Two men are employed at the mine, and rawhiding will be carried on this winter.

Of the other claims in this vicinity, a little work was done during the year on the *Tillicum* claim and on the *Mountain Meadow*, from which latter property a small trial shipment was made to Trail.

NORTH-EAST KOOTENAY DISTRICT.

GOLDEN AND WINDERMERE MINING DIVISIONS.

REPORT BY JOHN BULMAN, GOLD COMMISSIONER.

I have the honour to submit herewith the annual report of the North-east Kootenay District, embracing the Windermere and Golden Mining Divisions.

Mining throughout the district has shown considerable activity during the year 1917, which may be attributed to the general revival in mining throughout the Province, caused by the increase in the price of metals.

I enclose report from the Mining Recorder at Wilmer, which covers nearly all the principal mines in the Windermere Mining Division. The following is my report on the *Monarch* and the *Giant* mines, which are situated in the Golden Mining Division:—

GOLDEN MINING DIVISION.

Monarch. Situated on Mount Stephen, Field. This mine has been lying idle during the past year.

SPILLIMACHEEN DISTRICT.

Giant. Situated on the Spillimacheen river. There is quite a large body of low-grade ore, but owing to the absence of Captain Armstrong, one of the owners, being away serving his country on the Tigris river, there has been no development since the war broke out.

Tarheel Co. The Tarheel Copper Company, Limited, is the first mining organization to begin development in the old Bobby Burns-International Basin country since the earlier boom days. During the past summer the company established two camps—one at old Spruce Tree camp, now known as Dixie, and one in the Rainbow basin, located one mile and a half north-west of Dixie.

Work began late in the fall and some 200 feet of development-work has been completed. These workings were driven to determine the strength of two large veins and to prepare for ore-extraction. During the winter a 100-foot tunnel has been driven on the *Rainbow* claim that gives a depth of 145 feet, and as soon as this working is completed stoping of ore will begin.

This property has produced some exceptionally rich ore at surface, and will begin shipping from a 2½-foot shoot of chalcopyrite ore as soon as transportation facilities are completed. This is embraced in a contemplated road extending from the mine to Parson Station, on the Kootenay Central Railroad.

This region abounds in rich surface shoots of copper and gold ores, lying on the north side of the Middle fork of the Spillimacheen, extending along a lime-belt south-westward to Copper creek, and thence onward to Vermont creek and other tributaries to the South fork. To the westward from Dixie the ores are galena and silver, the surface croppings showing exceptionally high grade.

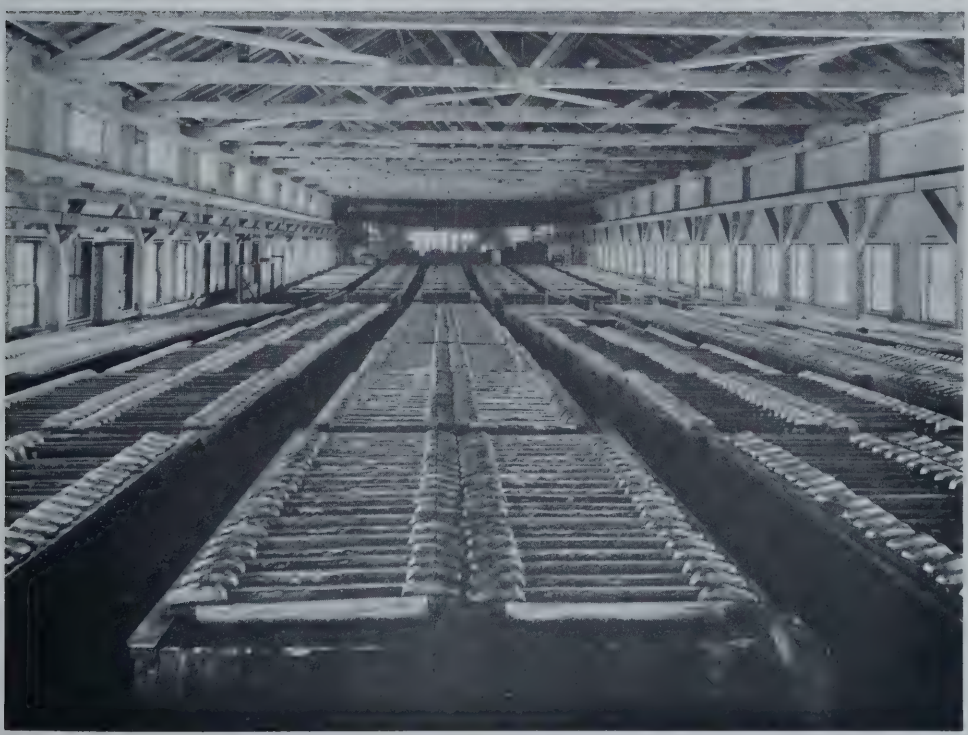
The Tarheel is the first to begin systematic exploration, and upon its success will depend the future of this district. In years gone by a number of shallow workings were run on the veins, which served only to show their continuity laterally, but sufficient depth was not obtained to determine the size of the ore-bodies. This the Tarheel, which is a close corporation, is now endeavouring to do.

Other claim-owners are planning development during the coming summer, and the outlook is for a general revival in the district.

The question of transportation has been a wagon-road twenty-two miles along the Middle fork to Parson Station, and this will be solved by the Tarheel Company during the summer of 1918.

Ore-extraction up to March 1st consisted of some 50 tons of surface ores, and this will be shipped to smelter. Trial shipments from these veins, with 17 per cent. copper, gave returns of $59 a ton.

Interior, Electrolytic Zinc-refinery, Trail.



Interior, Electrolytic Lead-refinery, Trail.

This region has been prospected only in a desultory manner, and further work gives promise of success.

Office Statistics—Golden Mining Division.

Revenue.

Free miners' certificates (special) (2)	$ 30 00
Free miners' certificates (ordinary) (130)	580 00
Free miners' certificates (company) (1)	100 00
Mineral claims recorded (79)	197 50
Assessments recorded (25)	62 50
Bills of sale, agreements, etc. (9)	24 00
Notices to group (3)	75
Copies of records (2)	2 00
Mining leases (6)	150 00
Ore-tax	1,605 33
Acreage-tax	318 75
Total	$3,070 83

WINDERMERE MINING DIVISION.

Report by E. M. Sandilands, Mining Recorder.

I have the honour to submit my mining report for the year 1917 on operations in the Windermere Mining Division.

During the year 1917 mining has not been as active as was expected owing to the Trail smelter not being able to handle the ore. This possibility has been the cause of several small properties not being worked which would otherwise have been.

I am glad to say that the office returns have exceeded those of 1916, despite the fact that the valley is more or less depleted of people and money is scarce. The sale of free miners' certificates, number of claims recorded, and certificates of work issued show an increase over the year 1916. As most of the properties, especially the small ones, are at an altitude of from 6,000 to 9,000 feet, the cost of getting down the ores over trails works very much against their operation.

Paradise. During 1917 over 2,000 tons of ore was shipped to the Trail smelter, the nature of the ore being a sand carbonate with an approximate content of 30 oz. in silver to the ton and 30 per cent. lead. During the year considerable improvements have been made at the mine. The tramway has been overhauled and new bunk-houses, bath-rooms, and dry-rooms have been built, and everything done to assist in the comfort and cleanliness of the men. During the summer months a caterpillar tractor was placed on the road, and this was able to haul from 15 to 20 tons a trip to the railway. Also during the summer the new "Cut-off" road has been finished and a bridge made across Toby creek at about the 7-Mile. This new road lessens the distance from the mine to the railway by some four miles. The ore is now hauled straight to Invermere, where new ore-pockets have been built. It is reported that R. R. Bruce has purchased the Hammond Estate's interest in this valuable property. Mr. Bruce is the manager and Robt. McDonald superintendent at the mine. During the year an average of thirty men was employed at the mine and from six to eight 4-horse teams employed. The offices of the company are at Invermere.

Lead Queen. This property is situated on Frances creek and is some twenty miles distant from the railway at Brisco, where the ore is shipped. The owners, Brown & McLeod, have worked the property almost continuously during the past year, averaging about four men a month. During the year about 126 tons of ore was shipped to the Trail smelter, going about 40 oz. silver and 40 per cent. lead. The property is still working and it is expected shipments will be made this winter.

Mabel R. This property is owned by R. R. Bruce & McDonald and has been under lease to Frank Anderson, who has packed down about 15 tons of ore which has been shipped to the Trail smelter. The property is situated on Law creek, a branch of Boulder creek. The distance of packing down the ore to the road at 10-Mile has been very much against it.

Relief. This property is owned by M. Craik and is situated on Boulder Mountain at an elevation of some 9,000 feet. It has been under lease to W. Chamberlain and others, who have shipped about 20 tons of good grade ore which will net the leasers about $100 a ton. It being at so high an altitude, the season for working it is naturally very short.

Isaac. H. E. Forster, the owner of this property, has shipped during 1917 some 125 tons of argentiferous galena and has about two cars more to come down this winter. The ore is fairly good grade, but the distance from the railway is rather against it. This property uses the same road as the *Lead Queen* on which to haul the ore.

Sitting Bull. During the summer this property has been operated by some Seattle people under the management of E. D. Smith, who has done considerable development-work, working an average of six men for about five months. The ore is a fine-grained steel galena and is fairly high grade. The work done so far has been encouraging. A temporary tramway has been installed and a preliminary survey for a wagon-road made. Unfortunately, last December snowslides came down and covered up the buildings, etc., so that work has ceased for the time being. It is expected that work will be resumed when conditions warrant.

Blue Grouse and Bald Eagle. These properties are owned by Mr. Burman and others and are located across the summit from the *Paradise* mine, on Boulder creek. Mr. Burman and partners have built a cabin on the claims and have done considerable dead-work. They are driving a crosscut tunnel to strike the lead, and it was recently reported that they had struck the lead.

Hidden Treasure. Fourteen tons of ore has been shipped from this property, which is situated on the Spillimacheen river, about seven miles from the railway. T. Barry and partners are the owners. The main value of the ore is in copper, with a trace of gold.

C. D. Ellis and associates have done considerable prospecting-work on their claims in the *Paradise* basin during the summer, and, I hear, with very favourable results.

OFFICE STATISTICS—WINDERMERE MINING DIVISION.

Free miners' certificates sold	78
Claims recorded (quartz)	59
Claims recorded (placer)	2
Certificates of work issued	60
Certificates of improvements	4
Bills of sale, agreements, etc.	9

SOUTH-EAST KOOTENAY DISTRICT.

FORT STEELE MINING DIVISION.

Report by N. A. Wallinger, Gold Commissioner.

I have the honour to submit a report on the progress of mining in the Fort Steele Mining Division for the year 1917.

The following table shows approximately the number of mineral claims held during each year since 1899:—.

Year.	Held under Crown Grant or Certificate of Improvement.	Certificate of Work.	New Locations.
1899	37	718	729
1900	71	704	470
1901	104	642	455
1902	117	451	253
1903	142	335	200
1904	167	260	169
1905	189	193	181
1906	241	235	160
1907	254	160	115
1908	264	150	100
1909	280	154	116
1910	294	161	179
1911	307	167	96
1912	316	143	145
1913	319	139	104
1914	345	189	179
1915	350	203	114
1916	353	133	56
1917	367	120	105

In submitting to you my report of mining conditions for the year 1917, it must be admitted that the year was not so progressive as anticipated; this was partly due to lack of transportation in the St. Mary's district and in the want of interest taken in free-milling gold properties on account of the greater demand for lead, copper, etc. However, certain encouraging facts may be noted, the chief being the entry of the Federal Mining and Smelting Company into the district for exploration purposes; the practical success of the *Victor* mine, at Fort Steele; the encouraging report on Alki Creek properties; and the further prospecting of the *St. Eugene* property, at Moyie. Against these favourable indications is the negative results obtained by the development on the *Burton* mine, at Elko.

On the whole, progress has been fairly substantial and interest exhibited in many properties, nearly twice as many claims being recorded as in 1916; the closing-down of the *Sullivan* mine, due to the strike at the Trail smelter, has come to an end, and by now a full force of men are at work. The Consolidated Mining Company has also done considerable prospecting and developing in the lower workings of the *St. Eugene*, at Moyie, an expenditure of over $30,000 being involved, the results of which have not been given publicity. The upper workings are still under lease and about 1,200 tons was shipped by the lessees. It was a stroke of bad fortune that the experimental concentrating plant, erected for the purpose of determining the best method of handling the *Sullivan* ore, and just on the point of completion, was utterly destroyed by fire.

The *North Star* hill is again coming into prominence by reason of the Federal Mining and Smelting Company obtaining control over a large portion of it, and systematic prospecting by diamond-drills has been going on for the past few months. The results will be awaited with interest, as a discovery of ore at depth, combined with the known bodies on the *Stemwinder* group, will give that company an additional incentive to operate in the district on an extensive scale.

The management of the *Victor* mine, at Fort Steele, are so pleased with the results of the development that a small compressor was installed to expedite the work and to ensure, by spring, a sufficient quantity of ore blocked out to warrant steady shipments; two ore-shoots are exposed, the shipping-ore running about 40 per cent. lead, 20 oz. silver, and zinc from 8 to 10 per cent. A wagon-road of over six miles was constructed to the main road to Fort Steele, the nearest point of railway connection, and it is the intention to ship as soon as possible, in a small way, the development to keep pace with the extraction.

The Spokane Syndicate, to which the *Park* group is bonded, has made a further payment and work is being carried on; this is entirely a shaft proposition and will demonstrate the possibilities of the ore-bearing ledges, of which there are many along the west side of St. Mary's prairie.

The St. Mary's district did not come in for much examination this year (although it is apparently chiefly a copper district), with the exception of Alki creek, the properties on which were examined and an offer to bond made; the want of transportation in this district is a serious obstacle to investors.

It seems a great pity that the discovery of bismuth and molybdenum at the forks of St. Mary has not been further investigated; the ores are reported as being in commercial quantities, but evidently the demand is not very great, or the transportation difficulty is the obstacle. Joseph Ryan, one of the owners, reports that after much correspondence no market for this ore has been found; it is evidently a specialty that the ordinary mining investor leaves alone, as very few custom smelters can do anything with it.

The discovery of a large iron-pyrite-covered ledge on Skookumchuck, within half a mile of the Kootenay Central Railway, is interesting, as native copper was found in the druses and crevices; the width of the ledge is stated to be 20 feet, and the owners refused a bond on the property, preferring to do a winter's work before deciding to sell.

Farther up the Skookumchuck is an ore described as carrying 5 per cent. nickel and over 11 per cent. cobalt, with 54 per cent. arsenic; the gold content was given as 10.75 oz. a ton, the analysis being made by the Department of Mines, Ottawa. This property is lying idle at present.

Free-milling gold quartz has not been in demand, and Perry, Weaver, and Nigger creeks—in fact, the whole district—received no attention at all.

The *Sullivan* mine, in spite of the shut-down, created a record for itself in ore shipment by sending 110,000 tons to the smelter; latterly this has been much reduced, zinc ore being shipped chiefly, to allow the smelter to accept lead ores from other properties.

The *Quantrell* shipped several cars of ore, and it is now, I understand, under bond to the Federal Mining and Smelting Company, which has taken control of the *Stemwinder*, *North Star*, and *Mount Sicker* groups, on the *North Star* hill, besides several other individual properties. These properties cover a large area, and it is to be hoped that the results will warrant this company getting down to systematic development on a large scale.

OFFICE STATISTICS—FORT STEELE MINING DIVISION.

Mineral claims recorded ("B")	105
Certificates of work ("E")	120
Certificates of improvement issued ("G")	14
Conveyances and other documents of title (bills of sale)	27
Abandonments	2
Partnership agreements	1
Gold Commissioner's permits	4
Documents filed	7
Affidavits filed	170
Mining leases issued	7
Free miners' certificates (ordinary)	216
Free miners' certificates (company)	3
Free miners' certificates (special)	2
Crown grants issued	14

Revenue.

Free miners' certificates	$1,136 75
Mining receipts	1,199 25

NORTH-WEST KOOTENAY DISTRICT.

REVELSTOKE AND LARDEAU MINING DIVISIONS.

Report by Arthur Johnston, Gold Commissioner.

I have the honour to submit herewith a report on the mining conditions within the Revelstoke and Lardeau Mining Divisions for the year ending December 31st, 1917.

In former years, the fall and winter seasons, mining operations in these Divisions about cease. This winter, however, mining development is progressing somewhat extensively. In fact, never since the early days of mining in the Kootenays has there been such activity shown as during this season of 1917.

Big Bend District.

The Big Bend district, north of Revelstoke, has received a good deal more than passing attention from mining men and investors during this season, being somewhat of a contrast from former years.

An expenditure of $14,000 was authorized by the Hon. Wm. Sloan, Minister of Mines, to extend the wagon-road north from 11-Mile. Five miles and a half of new road was built and a good deal of repairs made on the old road between the Columbia canyon and the 11-Mile. This road is now built to within three miles of 19-Mile, at the mouth of LaForme creek. This three miles no doubt will be built this coming season, and the road-construction carried on until Downie creek is reached, a distance of twenty-five miles, or forty-five miles north of Revelstoke. The eventual completion of this road will bring within reasonable transportation facilities a splendid mineral district that will add to the Revelstoke Division a territory of immense possibilities. It is estimated by men who know that the completed road in use will reduce the cost of transporting supplies by 80 per cent.

The Granby Consolidated Mining Company extended its operations into the Big Bend district this year, having taken a bond on the *Montgomery* group of gold-copper claims on Downie creek. The company employed about a dozen men during the summer in development-work. It is the intention to return during the forthcoming season to continue a more vigorous development of this well-known property. The prospect of the early completion of the wagon-road to Downie creek has encouraged the opening-up of this mineral area, as it means the cheaper transportation of supplies and machinery.

On Carnes creek the McBean property has been developed steadily for many years by the owner, E. McBean, there being upwards of $20,000 worth of work completed, demonstrating the existence of a very extensive gold-copper bearing zone.

Keystone mountain, Standard basin, and the territory lying adjacent in former years attracted considerable attention owing to the knowledge of big ore-bodies being discovered. On the Standard Basin properties alone it has been estimated that all of $100,000 has been expended in the past. But the lack of transportation has occasioned a delay in bringing these fields into activity. During the forthcoming season, however, with the knowledge of the efforts the Department of Mines is making to furnish the transportation needed, the miners are looking forward with much encouragement for the immediate future.

The Mastodon Mining Company, Limited, whose properties are situated on LaForme creek, twenty miles north of Revelstoke, has carried on extensive operations for the past eighteen months. This company has expended to date in excess of $25,000. The company built a first-class pack-trail from the Columbia river to the property, six miles up LaForme creek, and has also completed commodious mine buildings, taking in sufficient supplies to provide for the dozen miners who are actively employed at development-work this winter. The work already completed in the way of shafts and tunnels has exposed extensive ore-bodies of silver-lead-zinc ores. The company has this winter brought out to 19-Mile about 15 tons of ore, which was extracted in the development operations. The company intends to make regular shipments next year after the road reaches the 19-Mile Station, and will install a compressor during the summer with which

to increase the efficiency of the operations at the mines. J. W. Evans, the manager of the company, is in the East arranging with the directors for the coming year's work, in which they are planning for a very active campaign of development.

Placer operations in the Big Bend have been less than usual, and no reports of the success of the few men engaged are to hand. Mr. Remmillard and his associates, who are operating at French creek, are wintering at the mine and will continue work during the coming year on their leases.

ALBERT CANYON-ILLECILLEWAET DISTRICT.

This district has received special attention from mining men this year, and is therefore a very active camp.

The *Lanark* mines, of which W. B. Dornberg, of Spokane, is the manager, in the past was the biggest shipper in the entire North Kootenay country, and it is estimated $800,000 worth of ore has reached the smelters during the early years of its existence in 1897-8-9. After a lapse of some fifteen years Mr. Dornberg acquired the property, and during the past two years he has shipped about 800 tons of ore, netting very handsome returns. The property has been equipped with the latest in mining machinery for economic working. An aerial tram from the mine to the Canadian Pacific Railway tracks has been in operation for the past two years. This tram has one of the largest spans in the West. A new concentrator was built last year and has been successful, and the concentrates from the mill have been shipped to the smelter at intervals. A small crew of men is engaged this winter in opening up new ore-bodies, and the coming year should see everything in full blast at the mine. The *Lanark* is considered a silver-lead mine.

The old *Donald* group of claims, situated on Cariboo creek to the eastward of the *Lanark*, owned by David Woolsey, of Victoria, for the past twenty-five years, and extensively developed by him, was sold last fall to a Spokane Mining Company, which has already arranged for active mining-work on this property during next season. This company proposes putting in an aerial tram system to handle the output.

On Silver creek D. Woolsey is developing a group of claims with a small crew of men this winter, and is reported to be meeting with success. In the spring the crew will be increased and the property put into shape to be a producer.

The Dunvegan Mining Company, Limited, of which R. A. Grimes is the resident manager, is developing the old *Dunvegan* group, situated at the headwaters of the Incomappleux river. This property is reached from the Canadian Pacific Railway main line at Albert Canyon by a new trail, ten miles long, built by the company in the spring of this year. Cabins and mine buildings were built and a 100-foot tunnel was driven on the big ore vein, as well as considerable other work accomplished, which demonstrated the surface extent of the big ore-bodies well known to exist on this property. About twenty years ago the original owners of the *Dunvegan* shipped two car-loads of the ore to Selby smelter, and the returns are reported as 80 oz. silver a ton and 68 per cent. lead. Mr. Grimes has planned for an active summer's work on the property this coming year. Supplies are already on the ground, having been delivered to the mine last fall by pack train.

Many locations were recorded from this district, and at least some of the newer prospects are expected to give a good accounting when more development-work can be done on them.

LARDEAU MINING DIVISION.

As the Mining Recorder, W. A. Strutt, of Beaton, is covering the Lardeau Division in his statement to the Department, it will be unnecessary for me to give an extended report as to conditions in this Division. I might, however, point out that, while actual mining conditions are not up to those of former years, there was at least really more interested demands for information coming in from outside points than in any previous year. The old properties, such as the *Eva*, *Oyster-Criterion*, *Beatrice*, *Mohawk*, *Eclipse*, *Del Rey*, *Silver Dollar*, *Scout* group, the *Big Showing*, *Glengarry*, *Berniere*, and *Nelson* groups, the *Goldfinch*, and many others, all of them with histories of big development in the early days of the Camborne camp, were either inspected by prospective buyers this season or were the topics of much correspondence by men in the South and East who were in touch with the mining situation here and were anxious to be advised of the movements in this camp.

REVELSTOKE MINING DIVISION.

Report of John Lee, Mining Recorder.

I have the honour to submit herewith the annual mining report and office statistics of the Revelstoke Mining Division for the year ending December 31st, 1917.

The Gold Commissioner for the Division is forwarding his report for the year, and, as it covers the conditions appertaining to this district, I feel it will not be necessary for me to touch upon that feature of the situation; but I would like to point out that, while the returns from this office are not as large as last year, the reasons are obvious. Revelstoke is credited with being the third largest recruiting-point in the Province, but in reality it is the largest from the view-point of population, and we are credibly informed that no town or district of its population in Canada has a prouder record than we have in this respect. A very large percentage of our prospectors and miners were among those who enlisted. These men are protected by the Government regulations and are not obliged to carry their annual free miner's certificate, nor to record their assessments, etc., until after the war, which brings our returns less than would otherwise be the case.

Office Statistics—Revelstoke Mining Division.

Free miners' certificates	182
Claims recorded (mineral)	87
Certificates of work recorded	58
Permissions	2
Powers of attorney recorded	5
Agreements and transfers	27
Placer leases granted	11
Payments in lieu of work	4
Leases of Crown-granted mineral claims	3

LARDEAU MINING DIVISION.

Report of Wm. A. Strutt, Mining Recorder.

I have the honour to submit herewith my report of the progress of the mining industry in the Lardeau Mining Division for the year 1917.

Mining operations in this district show a decrease over the last year, and yet work progressed more steadily, but by a smaller force of men.

The *Goldfinch* property, which has been idle for a number of years, changed hands, and three men are working on contract there.

The Multiplex Mining Company during the past year has purchased the controlling interest in the *Excise* and *Duty* minerals claims, which join the *Spider* mineral claim. Approximately 600 feet of drifts, crosscuts, and raises have been driven and a considerable tonnage of good milling grade ore blocked out. New buildings have been erected both on the *Multiplex* and *Excise* groups, with the intention of driving a fourth tunnel to tap the ore-bodies already proven in the upper levels. Contractors are drifting on the vein on the No. 3 level. Ore has come in nearly across the entire face and continues to improve steadily. Drifting will continue during the winter.

On the *Spider* mineral claim a 40-foot shaft has been sunk from the No. 2 level in ore of good milling grade all the way, and an appreciable increase in values at depth attained. Owing to water troubles sinking was discontinued, but a No. 3 level was started to tap the ore-bodies encountered in No. 2 level at a depth of 100 feet below bottom of shaft. Two shipments of 6 tons each were shipped to smelter and concentrator; test results were satisfactory. The company owns eighteen claims and from five to ten men have been employed during the year.

The *Winnipeg* property, under lease by A. Evans, of Beaton, has proved very satisfactory. High-grade ore was encountered in the upper workings and some 26 tons of ore taken out; this ore is now in transit. It is the intention of the lessee to put on a force of men this coming season.

OFFICE STATISTICS—LARDEAU MINING DIVISION.

Free miners' certificates (ordinary)	52
Free miners' certificates (company)	1
Certificates of work	65
Payments in lieu of work	4
Locations recorded	32
Agreements and transfers recorded	20

SLOCAN DISTRICT.

AINSWORTH MINING DIVISION.

Report by R. J. Stenson, Gold Commissioner.

I have the honour to submit herewith the annual report on mining developments in the Ainsworth Mining Division for the year ending December 31st, 1917.

With the high prices of metals, mining companies, individual operators, and lessees looked forward with confidence for a successful year, and operations were carried on with vigour by the larger operators until about the middle of November, when the smelter at Trail closed down on account of a strike, in consequence of which several of the larger properties laid most of their men off. Towards the end of December the strike was settled and the company entered into a new agreement with the mine operators; as a result several properties resumed work with the usual force; in a few cases full crews will not be employed until spring. Notwithstanding the shut-down of the smelter, the results have been very satisfactory.

A discovery of manganese on a group of claims on Kaslo creek, about seven miles from Kaslo and close to the right-of-way of the Kaslo & Slocan Railway, has been explored sufficiently by the owners to demonstrate they have a large body of shipping-ore. They expect to ship in the spring. A report on this property by A. J. Curle, one of the owners, is herewith appended:—

Manganese Group.

"The mining property under my management during the year ending December 31st, 1917, is a new discovery named the *Manganese* group, and consists of six claims named *Manganese*, *Cantan*, *Manganese No. 1*, *Manganese No. 2*, *Manganese No. 3*, and *Manganese No. 4*. The ore taken from this property to date is a manganese dioxide, assaying 25 to 35 per cent. manganese for the concentrating-ore, and 36 to 50.6 per cent. manganese for the straight shipping-ore. Only a rough estimate of the ore at present in sight, both concentrating and straight shipping ore, has been made, and we think a fair estimate would be about 10,000 tons. During December A. D. Nash, a mining engineer, of Nelson, made a survey of one deposit on the *Manganese* claim, and although he has not yet completed his work, he thinks a fair estimate would be about 5,000 tons of ore in this deposit. No ore has been shipped, but about 30 tons has been mined. This 30 tons was mined from the surface in two days by four men and sacked up; this time included cleaning the surface of debris. This ore is stored. A small frame building has been put up on the *Manganese* claim, which accommodates six men, including cook. Seven men only have been employed for ten days, from November 20th to 30th, taking out ore, cleaning surface, making man-trail, and erecting building. A wagon-road on about an 8-per-cent. grade from the railway to main ore-deposit on the *Manganese* claim, a distance of about three-quarters of a mile, has been made. Six surface outcroppings of ore, other than the one explored on the *Manganese* claim, have been discovered on one and another of the other claims in the group, but these outcroppings have not been sufficiently explored to determine even approximately their extent, although two of them have been traced for a considerable distance."

Cork-Province.

Situated on the South fork of Kaslo creek; operated by the Cork-Province Mines, Limited. Development-work consisted of approximately 700 feet of drifting; 413 tons of silver-lead concentrates was shipped, and extensive improvements made to the mill. Owing to the smelter strike the property practically closed down the latter end of the year, but they expect to resume operations on a large scale in March, when, with improved milling facilities, they expect to produce zinc concentrates in addition to silver-lead product. On an average forty men were employed.

Revenue.

Situated about eighteen miles from Kaslo, on the South fork of Kaslo creek. The work consisted of cleaning out a lower tunnel for about 180 feet and laying track; an upraise 5 x 7 x 36 feet, from which 20 tons of clean ore was extracted; driving a tunnel about 45 feet, from which was taken 1 ton of ore assaying 236 oz. silver and 50 per cent. lead. In addition to the above, a blacksmith-shop, 10 x 12 feet, was erected.

Silver Bell. This claim is on Kaslo creek, about fifteen miles from Kaslo. The work on this property was of a preparatory nature, and consisted of cleaning out the trail; constructing a bridge, and a shed, 16 x 36 feet, at portal of tunnel; cleaning out tunnel and retimbering for a distance of about 145 feet; laying 95 feet of track. The tunnel was extended a short distance.

Index. This property is under lease and bond to J. A. Poyntz, who has erected new cook-house, ore-shed, stables, etc. I am informed the property will be worked continuously next season. Four men were employed. The work did not start until the latter end of the season.

Gibson. This claim, owned by D. K. May, has had from eight to twelve people employed in building and developments since July 1st, and the work has been very satisfactory. Three large buildings have been erected, consisting of a storehouse at the wagon-road, 20 x 42 feet in the clear; a bunk-house, 16 x 30 feet in the clear; also a kitchen and dining-room, 16 x 30 feet in the clear; and a large shed and ore-bin for sorting and storing of ore.

Over 500 feet of drifting and upraises on the silver-lead vein has been done, which exposes an ore-body from 30 to 36 inches wide, and all of a good grade of concentrating-ore. This is the third tunnel or drift on this ore vein and proves the ore goes down to that level, which is 194 feet below the upper tunnel, which is in 449 feet, with a depth of 350 feet.

There is also being driven another tunnel at the foot of the mountain on Cariboo creek which will crosscut all the veins in the property within about 350 feet distance and at about 200 feet greater depth than we now have. This tunnel is now in 50 feet.

There is about 3,000 feet of development on the property and it has been equipped with all the tools necessary for hand-mining. All supplies are in for the winter and development will be carried on continuously.

Bell. Situated in Jackson basin; employed twelve men; the development-work consisted of 325 feet of tunnel. Shipment for season, 605 tons of zinc ore.

Flint. Operated by J. A. Carter for a short time during August and September with satisfactory results, who shipped about 7 tons high-grade ore and expects to open up again in February. Mr. Carter has a nice showing of 1 foot of solid ore averaging 100 oz. silver and 65 per cent. lead.

Helen. Owned by English Bros., Kaslo, and was operated by three men since July; tunnel-work, about 250 feet. Indications, so far, are very promising. This property is in Stanley basin in the vicinity of the Utica mine.

Gold Cure. Is on the South fork of Kaslo Creek, under lease and bond to local parties, who have extended the tunnel 112 feet and erected a new cabin and blacksmith-shop. Three men employed since the latter part of the year.

Utica. An average of twenty men was employed during the year; the development-work accomplished was 2,678 feet, consisting of drifts, crosscuts, raising, etc. In addition to the above, there were erected a new bunk-house to accommodate thirty men, a stable for ten horses, and a power plant of 100 horse-power; 305 tons of lead ore was shipped.

Silver Glance. Work was commenced on this property by J. W. Power, of Vancouver, on September 15th; two crosscuts were extended 50 and 20 feet respectively, with satisfactory results, small showing of dry ore occurring in each place. Three men were employed until November 15th. Expects to resume operations in the spring.

Panama. This promising property was closed down in May owing to the death of J. P. Miller, one of the owners. Work will be carried on, it is understood, as soon as the Miller interest is disposed of. This is a silver property.

St. Patrick. This property is under lease and bond to Saskatchewan capitalists; the first payment under the bond was made in December. Reports are the property is looking well; the values are in silver, lead, and zinc.

Red Elephant. Owned by Power & McKay, who started work on June 1st, resulting in 20 feet of tunnel, in which, I am informed, gold to the value of $10 is found, and also good lead values in a 50-foot open-cut.

Piker. Situated about three miles south of Kaslo; is under lease and bond to D. P. Cosgriff. A shaft was sunk 25 feet, 5 x 7 feet, from which 6 tons of clean ore was obtained.

Sun. This claim is owned by D. H. Nellis and is situated on Woodbury creek; 35 tons of silver-lead-gold ore was shipped from this property.

Eden-Crescent Group. Situated about two miles south of Ainsworth. There has been constructed a comfortable bunk-house, mess-house, office building, a foreman's house, a blacksmith-shop, etc. Two shafts 100 feet apart have been sunk on the Crescent vein—No. 1, 40 feet in depth; No. 2, 27 feet. There has been shipped one car of ore as a sample shipment. As a result of the favourable showing a tunnel was driven down the mountain to cut the ore at 150 feet depth. After driving the tunnel for 100 feet a parallel vein was encountered and drifted upon for 315 feet before it was opposite the No. 1 shaft, when a turn was made to the east and crosscut driven for 205 feet, cutting the ore under the shaft about 145 feet below the surface, which was drifted on in the vein for 107 feet. A raise was started from the drift toward the surface, following the dip of the vein for 32 feet. A small crew is now working here to put through the upraise to the surface on the dip of the vein. The full face of this upraise is in ore, the vein being all in ore 7 feet between the walls. The above work, with seven open-cuts both on the north and south of the shafts to open up the veins, are all in the *Eden* and *Crescent*.

On the *Blizzard* claim a 10-foot tunnel on the vein and a small shaft and two open-cuts were made to prospect the veins, and these make a fine showing. Work was only suspended for the reason that the workings lower down the mountain will open up the vein at greater depth.

A new tunnel was started at the creek-level on another vein on the *Sunnyside* claim, being about 650 feet lower down the mountain, on a showing of galena, and was continued 55 feet. A cribbing was put in at the mouth of the tunnel on both sides of the creek and the first timbers were installed for a bridge to bring machinery across, but, as the Government road was not completed in time to get the machinery in this fall, and owing to the excessive cost of working this hard ground by hand, it was decided to discontinue the work, except to make the upraise in the *Crescent* tunnel through to the surface, which would give ventilation, and when the machinery was installed work could be rushed under most favourable conditions. The tunnels are fully equipped with rails and cars and piped for ventilation and air; the blacksmith-shop with all tools, blower, bellows, three anvils, and plenty of steel, etc.; sufficient timberman's tools. Two cars and a stock of rails are at the end of the new road waiting to come up with the machinery. At the mine there are all necessary furnishings, buildings, dining-room, bunk-houses, etc., for a crew of eight men. The ore shows, as a result of several samples of the car of ore shipped, 35 to 40 per cent. lead, 8 to 35 per cent. zinc, and 6 to 12 oz. silver.

Highland. Is situated in Ainsworth camp and is operated by the Consolidated Mining and Smelting Company; seventy men were employed in mining and milling; 9,465 tons silver-lead ore was mined, 8,896 tons of which produced 746 tons of concentrates, which, together with 569 tons of crude ore, was shipped to the Trail smelter. The surface improvements consisted of a new bunk-house, dry-room, compressor, addition to concentrator, power-line to compressor, and tram-lines.

Banker-Maestro. Is under lease to the above company, which had four men working over the dump and getting out ore for the mill; 250 tons was milled, producing 26 tons concentrates, which, together with 21 tons crude ore, was shipped.

Crow Fledgling. Operated by A. W. McCune. The work consisted of driving a crosscut tunnel 1,200 feet, drifting from this crosscut tunnel about 1,100 feet; 250 feet of this drifting was to the south and 900 feet to the north; and seven other crosscuts totalling 300 feet. Stripping vein for 400 feet on surface, reported as showing good ore-bodies.

Skyline. Work done consisted of 1,500 feet of crosscut tunnel, in addition to which cook and bunk houses, blacksmith-shop, engine-room, and offices were erected. Twenty men were employed; no ore was mined during the operations.

Wolverine Group. A shaft to the 200-foot level was completed. A drift run 80 feet north, encountering an ore-body of unknown width. About 100 tons of ore was hoisted during drifting operations and stored for milling. It is the intention to start a long tunnel for advantageous working and drainage purposes. The operations were conducted under supervision of C. de Lancey with ten men.

Florence. This claim is situated on Woodbury creek and was worked continuously; about 850 tons of ore was shipped.

Little Phil. Was under lease to Nelson & Erickson, who have run several crosscuts and drained the winze. They encountered several ore-streaks, from which they have shipped during the three months' operation 30 tons silver-lead ore and one car is ready for shipment. In addition to the above, there are 50 tons of ore which will require to be milled, and should mill about 4 to 1. The hand-selected ore averages 20 oz. silver and 55 per cent. lead.

Albion. Is under lease to the same parties as the *Little Phil*, who have blocked out 4 x 50 feet of 45-per-cent. zinc, and have shipped 12 tons of the same grade of ore as above mentioned.

Spokane-Trinket. Operations consisted of 1,000 feet of stoping, sinking, upraising, and drifting, and shipping 85 tons of ore. Eight men were employed. Bunk-house, office, and ore-sorting sheds were erected.

Gallagher. Is owned by A. D. Wheeler and was under lease, from which one car of ore was shipped, the gross value of which was a little over $1,000; 200 feet of drifting was done.

Bluebell. This mine is now opened to the fifth (or E) level below the adit. The elevation of adit station is 1,773 feet and of E station 1,403 feet. The ore-bodies have not yet been sufficiently exposed to permit one to say whether or not the lowest level will reveal any change of importance in physical or mineral conditions. There is noticeable, however, a decrease of both zinc and lead tenure and an increase of silver as depth increases. There was 58,620 tons of ore mined. Out of this, 1,030 tons was low-grade oxidized ore, the greater part of which was shipped direct to the smelter; the remainder was concentrated. The mine worked continuously during the year with an average of eighty-two men employed, including the staff.

Lavina-Butte. This property was opened in the summer for the first time since 1900, showing small veins of silver-lead ore of a good grade carrying a little zinc. Operations have produced about 60 tons of ore running 70 per cent. lead and 60 oz. silver. Owing to weather conditions and the difficulty in getting packers the ore has not been shipped.

Whitewater.—Under four leases produced 379 tons of silver-lead ore and 500 tons of silver-zinc ore.

OFFICE STATISTICS—AINSWORTH MINING DIVISION.

Free miners' certificates	106
Claims recorded	150
Assessments recorded	277
Agreements and transfers	59
Certificates of improvements	6

SLOCAN MINING DIVISION.

REPORT BY ANGUS McINNES, MINING RECORDER.

I have the honour to submit herewith the annual report on the mining operations in the Slocan Mining Division for the year ending December 31st, 1917.

The operations carried on in this Division during the year have fully met the expectation and the optimistic feeling in all parts of the camp. Most of the old mines that were unworked for years have been taken over by men and companies who are alive to the possibilities of the Slocan for investments in mining properties.

In the Silverton camp the *Van-Roi* and the *Hewitt* groups have been taken over by Clarence Cunningham; there are sixteen claims in the two groups and a first-class concentrating-mill on each of the groups. The *Van-Roi* mill is about one mile above the *Hewitt* mill; the latter is fitted with oil-flotation equipment. At this writing the properties are looking well beyond all expectation. There are about 150 men employed between the two mines and they keep three 4-horse teams busy getting the concentrates away.

The Standard Silver Lead Mining Company, whose properties, the *Standard* and *Emily Edith* groups, are near Silverton, is working the usual number of men and shipping the usual amount of silver-lead and zinc concentrates. Just now they employ 150 miners and labourers.

The *Lucky Thought* group, owned and operated by the Consolidated Mining and Smelting Company, of Trail, is situated about three miles up Four-mile creek from Silverton. On an average thirteen men are employed.

The Echo Mining Company, whose properties are situated directly above the *Standard* group, is doing a considerable amount of development-work and has big bodies of high-grade ore blocked out. Preparations are now being made to build an up-to-date tram down to the lake and concentrator, when it will be very much cheaper to handle the ores.

The *Surprise*, now called the Rosebery Surprise Mining and Milling Company, is another big concern that is going ahead and prospering. It has acquired the *Bosun* properties, near New Denver, together with the large mill situate at Rosebery. Since taking over the property the company has enlarged the mill and put in a flotation plant, and employs at the mine and mill some fifty men. This company is also owner of the *Surprise* and *Elkhorn* mines, at Sandon, where it has another large mill and employs over seventy-five men; P. J. McFadden is Superintendent and manager and F. Murphy is engineer.

The *Queen Bess*, *Idaho-Alamo*, and *Wonderful* groups have also been taken over and operated by Clarence Cunningham; these three groups have been systematically developed and ore blocked out ready to break down. Mr. Cunningham has now about finished a system of trams whereby he can take the ores from at least two of these groups down to the railroad at a very small cost; he also contemplates building a large mill at Alamo on the site of the old *Alamo* mill.

The *Noble Five* group of mines, situated at Cody, about one mile above Sandon, has been developed for some years by James Dunsmuir, of Victoria, with A. Lincoln as manager; they are also making arrangements to replace the old mill with a new and up-to-date mill with a flotation plant attached.

The Galena Mines Company, owning the *Galena Farm* group on Slocan lake, is operated by P. Clark. At present they are only doing development, for the reason that they are short of water to run the mill, but expect to be running full blast in the course of a month.

The *Sovereign*, near Sandon, is another of the Cunningham properties and is looking well under development.

The *Freddy Lee* is owned and operated by M. McCune, of Salt Lake City, he is at present engaged in developing the property with a view to increasing the force and shipping ore, of which he has large bodies blocked out.

The *Rambler*, situated near Three Forks and owned and operated by a Spokane company, has been operated very successfully for the last year and made large profits for the owners; Wilfred Cameron is the superintendent.

Besides these properties I have mentioned, there are a number of smaller properties which may develop into mines when more work is done. Following is a list of mines in this Division that made shipments this last year:—

	Tons.
Black Grouse	10
Daniel	18
Echo group	81
Freddy Lee group	68
Galena Mines group	2,797
Gem	11
Grey Copper	37
Hartney	12
Idaho-Alamo group	164
Ivanhoe group	54
Lone Bachelor	7
Lucky Jim group	3,033
Lucky Thought group	882
Montezuma	2
No. 1 mine	50
Noonday group	62

	Tons.
Payne mine	19
Queen Bess group	2,198
Rambler-Cariboo	1,301
Reco group	30
Ruth group	283
Slocan Star	1,441
Sovereign	158
Standard Silver Lead	15,124
Surprise group	6,728
Van-Roi and Hewitt groups	1,263
Wonderful group	242

OFFICE STATISTICS—SLOCAN MINING DIVISION.

Free miners' certificates	192
Free miners' certificates (companies)	2
Claims recorded	48
Assessments recorded	113
Transfers recorded	9
Notices filed	11
Revenue collected	$5,893.95

SLOCAN CITY MINING DIVISION.

REPORT OF T. MCNEISH, MINING RECORDER.

I have the honour to submit my report for the Slocan City Mining Division for the year ending December 31st, 1917.

Beyond the keeping-up of the yearly assessment-work on all the promising claims, very little work has been done in this Division during the year 1917. However, the work which has been done has given encouraging results.

The *Ottawa* group, owned by the Consolidated Mining and Smelting Company of Canada, has had a force of men working nearly the whole of the year on development-work, but has only been shipping the ore that has been taken out in the completion of such work, the total amount shipped totalling 178 tons.

The *Black Prince* group, which is under lease to J. T. Tipping, has not been working more than half the year owing to the scarcity of labour and the high cost of mining, only having shipped 17 tons. The property is now looking very promising and Mr. Tipping hopes to work the same the coming year.

The *Alice S.* claim has been closed down for the whole year.

The *Meteor* is under lease and bond to Barber & Taylor and has done extensive development-work, but has not taken out any ore except that encountered in the doing of such development-work, but they have not shipped any this year.

The *Enterprise* has been under lease to Pat McGuire and has shipped a total of about 112 tons of high-grade ore.

The *Empire* mine, owned by Wm. Cotterell, has shipped about 6 tons of ore taken out in development-work, but has been compelled to close down till spring.

OFFICE STATISTICS—SLOCAN CITY MINING DIVISION.

Free miners' certificates issued	66
Locations recorded	34
Notices to group	18
Certificates of work	98
Bills of sale recorded	12
Agreements and certificates recorded	2

TROUT LAKE MINING DIVISION.

Report of Oscar Jacobson, Mining Recorder.

I have the honour to submit herewith my report of the progress of the mining industry in the Trout Lake Division for the year 1917.

There has been a little improvement in the mining industry during this season as compared with past years, but it was expected in the spring that more properties would have been opened up. A good many mining men and experts were in the camp during the summer looking over prospects here. One drawback is no doubt the transportation problem, but in time that would adjust itself. The Canyon Creek portion of the district is almost deserted now on account of the poor trail, although the Government spent a whole lot of money there some years. As it is now, it is almost impossible to get up there. There are some very promising properties there owned by Bodin & Berg and others.

Ethel. This property, operated by the Silver Crown Mining Company, Limited, of Spokane, Wash., worked three or four men the entire year, and shipped 26 tons of silver-lead ore that gave a return of 140 oz. of silver and 8 per cent. lead. The intention is to keep on working during the winter.

Foggy Day. This claim is owned by Mrs. A. E. Jowett and is under lease and bond to J. S. Lamphere, who worked it during the summer months, and shipped 9 tons of ore that gave a return of 4.29 oz. in gold, 16 oz. in silver, and 4.6 per cent. lead. As soon as it is possible to start in the spring, Mr. Lamphere intends to build quarters to accommodate the men that he is going to employ.

Crescent. This claim is owned in Mansfield, Wash. The owners have driven about 200 feet of a crosscut, but have not as yet struck the lead. The idea in crosscutting is to tap a big surface showing that carries gold and silver.

Gold Bug. This property is situated at Seven-mile, on the South fork of the Lardeau river, and is owned and operated by J. W. Livingston; it is a very promising property, as Mr. Livingston struck a fine body of galena ore this summer.

Copper Chief Group. This property is situated on the west side of Trout creek and consists of four full claims and a fraction. The property was bonded by R. D. Fetherstonhaugh from J. W. Livingston in November last year, and a syndicate composed of Calgary and Edmonton capitalists, known as the Copper Chief Mining Syndicate, was formed to carry on development. Work was started on December 1st, 1916, under the superintendency of Mr. Fetherstonhaugh, and carried on till about November 1st. A trial shipment of some 6 tons was made in the month of June to the Trail smelter, which gave the following returns: Silver, 241 oz.; lead, 12 per cent.; zinc, 23 per cent. Some 258 feet of tunnelling has been driven and a number of open-cuts, showing up the vein for a distance of 1,200 feet. A new tunnel was started 100 feet below No. 1, which is expected to cut a large ore-body. Another trial shipment of some 7 tons was made a short time ago, from which no final return is to hand.

During the season molybdenite was found on the property, following a diorite dyke, cutting obliquely across the formation; this was only found late in the season and has not been developed to any extent; yet, however, several open-cuts were put in, showing a considerable quantity of this valuable mineral. The second payment of the bonding price was made to the owner a few days before closing down the work.

Silver Cup. Not much work has been done on the *Silver Cup* and *Sunshine* this season, as only two men have been employed in putting the property in shape, but I understand that it is intended to start work in the spring with a force of men.

True Fissure. This well-known property has had considerable development-work done on it; work started there over a year ago and has been going on steadily until a short time ago. I have been unable to get any official report in regard to the amount of work done, but I am informed by men that have been employed there that the property is showing up very well, with ore-showings in the tunnels. Two car-loads of ore are now being taken down from the mine for shipment to the smelter.

Great Northern. A few men have been working on this property for some time, and it is the intention of H. Macpherson, one of the owners of the property, to continue the work all winter and to get some ore blocked out.

Nettie L. This mine, owned by the Ferguson Mines, Limited, has been worked throughout the year under lease; one car-load of silver-lead ore was sent to the smelter during the summer that gave a return of 150 oz. in silver, 13 per cent. zinc, and 13 per cent. lead; 25 tons of zinc ore was also shipped which assayed 47 per cent. zinc. Another car-load of silver-lead ore is ready for shipment at the mine. An average of six men has been employed and it is intended to continue work all winter.

York Group. This group of claims is owned by Hillman & Culkeen and is situated on Gainer creek; the owners have erected a cabin, and it is the intention to drive a tunnel to tap a shaft where there is a foot of high-grade shipping-ore.

Index Group. This group of claims is situated on Gainer creek and has had considerable development-work done on it; a crosscut tunnel of 150 feet in length has been driven this season and developed about 40 feet of concentrating-ore, and the other wall is not yet struck. As the property is situated in a rather difficult place, the work had to be suspended for the winter, but as soon as the weather will permit in the spring the work will be started up again.

Elesmere Group. This property is owned by the Circle City Mines, Limited; George Brown, president. The property consists of eight claims and is located on the North fork of the Lardeau river, about seven miles from Ferguson. The property has been working all the year with a force of eight men, and the intention is to work all winter. A tunnel of about 217 feet has been driven, beside crosscuts and upraises. Cabins and blacksmith-shop have been built, and there is about 3½ feet of concentrating-ore in the drifts; it is the intention of the company to install a mill as soon as the property warrants it. An air-compressor was bought and brought up as far as Ferguson, but on account of the condition of the trail it was impossible to get it up to the mine.

Triune. This property is owned by the Minnesota Gold and Silver Mining Company. According to information received, the mine is looking as well if not better than it ever did before; and when the men left this fall (on account of snow) there was an ore-showing of 3 feet of good high-grade ore in one of the drifts. All of this ore is not solid mineral, but such does extend to the width of 18 inches, and the rest of the ore is not quite so high grade, although it will stand shipping. Work started on June 1st and a crew of fifteen men was employed until the time of closing down. During the time that working was carried on, one tunnel was extended 40 feet, one upraise 50 feet, one tunnel 20 feet, one crosscut 30 feet, and another drift 50 feet. One car-load of ore was sent to the smelter that netted almost $200 to the ton. Another car-load was ready for shipment when the snow came and stopped operations for the season. The company is very much handicapped in not having a tram-line, but it is the intention to erect one next season. The work at the mine will commence again as soon as the weather will permit in the spring, and it is hoped that after the end of next season the property will be operated steadily.

Reward Group. The *Florence* mine is one of the claims in the *Reward* group and is owned by the Minnesota Gold and Silver Mining Company. The property has been worked since June 1st, and the company proposes to keep right along with a force of eight men. No ore has been shipped, as it is a milling proposition, so all work done is of development character; the work includes crosscutting and drifting; the object of the work is to find out the extent of the ore-body, and to have tests made to find out what kind of a mill will be needed for the treatment of the ore. There are some twenty claims in this group, and all of them are in the same mineral belt as the *Silver Cup*, *Sunshine*, *Nettie L.*, and the *Great Northern* mines, so there can be no doubt the company has good ground to work on. The property is very close to a wagon-road, so it will not require a long tram for the transportation of the ore to the mill.

Towser. This property is situated below the *Sunshine* mine and is operated by J. F. Carey, of Spokane, Wash. I am not in possession of official data of how much work has been done during the season. One car-load of ore was shipped from the mine during the summer, and another one is ready to be shipped. Eight men have been employed and the idea is to keep working right along.

General View, Consolidated M. & S. Co. Smelter, Trail, B.C.

Poplar Creek Section.

Nothing more than the usual assessment-work has been done on the claims in this part of the Division.

Office Statistics—Trout Lake Mining Division.

Assessments recorded	158
Locations recorded	78
Agreements and transfers	25
Notices to group	29
Free miners' certificates (ordinary)	73
Free miners' certificates (company)	1

NELSON DISTRICT.

NELSON MINING DIVISION.

REPORT BY S. S. JARVIS, ACTING GOLD COMMISSIONER.

I have the honour to submit the annual report on the Nelson Mining Division for the year ending December 31st, 1917.

NELSON CAMP.

Silver King. Development-work is still being carried on by contract at the *Silver King* mine; 734 feet of drifting was done the past year, and two men were employed pumping and keeping the mine generally in shape so that it can be started up at any time.

California. One car of ore was shipped from the *California* mine to the Trail smelter, the ore being what had been saved during development-work performed in 1916. During 1917 development-work only was carried on, 786 feet of tunnel being driven. Equipment costing $2,168 has been installed. Power is being leased from the *Athabasca* mine for operating air-drills. The average number of men employed was eight.

Granite-Poorman Group. The Kootenay Gold Exploration Company, which has the following Crown-granted claims under lease and bond: *Poorman, Hardscrabble, White, Hardup, Myemer, Electric, Green Horn Fractional, White Swan, Granite, Red Rock Fractional, Tamarac Fractional, Blue Grouse, White Swan Fractional,* and which are known as the *Granite-Poorman* group, has not been operating since August 15th last. The character of ore, gold and silver; method of operating, mining and stamp-milling.

Approximately 98 tons of concentrates was shipped to the Trail smelter last year. Average assay, 2.01 oz. gold, 1.903 oz. silver, and 1.494 per cent. copper. Ore treated at mill, 1,000 tons; average number of employees, 25; new underground development-work, 474 feet crosscut; new surface development-work, sluicing; new mechanical installation, a 200-horse-power electric motor, 20-cubic-foot compressor, 4 Overstroom tables, and electric equipment. In addition to above, bullion was shipped to the Dominion Assay Office, Vancouver, approximately containing 446.67 oz. gold.

Athabasca. About 131 tons of ore went through the *Athabasca* mill the past year, and an average of four men was employed up to November 1st, 1917.

Eureka. Work is being carried on under the direction of J. J. Malone, of Nelson. Shipped to Trail last spring, 1,240 tons; character of ore, gold, copper, and silver; method of operation, hand-mining; average number of employees, 84. New underground development-work, 200 feet crosscutting; open-cuts, 200 feet on surface showing. A new compressor and hoist is now at the mine, but not yet installed. An aerial tramway has been erected, length 1,080 feet. New ore-bins, etc., have been installed.

The Eureka Copper Mines, Limited, is also building another tramway, 3,000 feet, extending from *Granite-Poorman* tramway to railway-track, and on its completion expects to ship about 50 tons a day.

Orinoco Group. This mine is composed of the following claims: *Orinoco, Orinoco Fractional, Queen Victoria Fractional,* and *Rio Tento,* which are owned by M. Egan, of Nelson. Some 144 tons of ore was shipped to the Greenwood smelters. The assay values ran as follows: Silver, 2.5 oz.; copper, 2 per cent. Mr. Churchill, who had a lease on the above property last fall, made a shipment of 56 tons to the Trail smelter.

Perrier Group. Very little development-work was carried on owing to shortage of water. About 25 feet of crosscutting, 50 feet of drifting, and some open-cut work was done. No shipments were made to the smelter. Four men were employed when conditions allowed.

Molly Gibson. This mine was closed till the end of June. Work was started in July at the mine, and at the mill in August. All the development done was for enlargement of stopes. Some 367 tons of crude ore was shipped to the Trail

smelter. The mill put through 1,759 tons of feed and produced 134 tons concentrates, which was not shipped. A new flotation process was installed and a Hardinge ball-mill is now on its road to the mill. The average number of men employed was fifty.

Iva Fern Group. This property is situated on Cultus creek, at a distance of six miles from Kootenay lake. J. Mulholland, the owner, who has been developing the property during the year, has now bonded it to the Consolidated Mining and Smelting Company, of Trail.

Ymir Camp.

Yankee Girl Group. The Hobson Silver Lead Company, of which W. T. McDowell is manager, has been actively engaged in the mining and development of this property during the year. The group consists of the following claims: *Yukon Fraction*, *Yankee Girl*, and *Canadian Girl*. Character of ore, gold and silver (lead and zinc in small quantities); method of operation, machine-drills for drifting and stopers for stoping. Since September, fifty-five cars having a total dry weight of 2,058 tons have been shipped to the Canada Copper Company at Greenwood. Average number of men employed, 17; new underground development-work, 450 feet of drifting on vein, 185 feet of crosscutting; stope, 60 feet long by 65 above tunnel. One 4-horse-power gasolene-engine has been installed.

The manager reports that an ore-body consisting of lenses of heavy sulphides was developed near the end of drift, and stoping was commenced on this at a distance of 35 feet from the face. The ore, which is reported to have a width of 6 feet, runs about 8 per cent. zinc, 25 per cent. pyrite and pyrrhotite carrying gold and silver values, which shows average returns of $17.50 a ton.

Quite a number of other mines in the Ymir camp have been doing development-work on smaller lines, such as the *Jennie Bell*, *Nevada*, *Imperial*, *Lost Cabin* group, and *Monarch* group.

Sheep Creek Camp.

Ore Hill Group. This property is now being operated by C. H. Cassill under the management of W. B. DeWitt, and is composed of five claims: *Ore Hill*, *Ore Hill No. 2*, *Standard*, *Dixie*, and *Last Dollar Fractional*. Character of ore, gold, silver, lead, and zinc; method of operating, hand-mining. One car of ore is ready to ship. Five men have been employed continuously. About 90 feet of underground development-work and 120 feet of surface work has been done during the year. A Wilfley table and crusher have been installed, also a 2-stamp mill near the mine. The old mill has been repaired and several changes have been made. The property has undoubted merit and gives promise of becoming a productive mine.

H.B. and Zincton. This property shipped a considerable tonnage of zinc ore during the year, but latterly has been closed down.

Aspen. P. F. Horton is developing this property and intends shipping during the winter. Assay returns of ore sorted for shipment ran as follows: Gold, 0.68 oz.; silver, 123.4 oz.; zinc, 6 per cent.

Emerald. This property, which is owned by the Iron Mountain, Limited, of which John Waldbeser is manager, has been a steady producer during the year, having shipped 4,334 tons of ore to the Trail smelter. An average of thirty-three men has been employed throughout the year, while at the *Jersey*, the adjoining mine, an average of seven men has been at work since last July.

Development at the *Jersey* consisted of drifting on the vein and open-cutting. Bunk-house, cook-house, ore-bins, etc., were erected, as well as constructing two miles of wagon-road to connect with the *Emerald* mine.

The mill at the *Emerald* has a capacity of 25 tons of ore daily, and the company expects to use part of it to enter into construction of a larger and more modern mill at a later date. A concentrator has been purchased and is now being erected.

Queen. This property, which was a very active producer in 1915 and 1916, has been closed down during the past year.

Spokane Group. This property is situated on Wall mountain, in what is known as the Bayonne section. Laib Bros., who are the owners, are continuing with development-work, which consists principally of two drifts on the vein.

There is a considerable quantity of ore exposed in the two drifts. The average values at present prices of metals would run about $22 a ton in gold, silver, and lead, the principal values being gold and silver. It is a promising prospect which at present is handicapped by lack of transportation facilities.

Molybdenite Group.

This property is situated about thirteen miles from Salmo, on Lost creek, and is owned by Bennett, Ross & Benson. Considerable development-work has been done on the property during the year. The International Molybdenum Company treated approximately 65 tons at its Flotation Reduction Works at Renfrew, Ontario, and the Department of Mines, Ottawa, approximately 85 tons. The property has merit and no doubt will be a heavy shipper during next year.

ERIE CAMP.

Second Relief.

This mine is situated about ten miles from Erie. A. D. Westby, manager, reports that mining and development work have been carried on during the year. Owing to the inability to secure cyanide, zinc shavings, and other chemicals, the cyanide plant has been closed down during 1917. New equipment, including a concentrating and sliming table, a Senn amalgamator, and a 45-horse-power gas-engine, has been recently purchased, with the idea of saving the free gold and shipping the concentrates until such time as they can again operate the cyanide plant. Nine men are working.

OFFICE STATISTICS—NELSON MINING DIVISION.

Free miners' certificates (individual)	576
Free miners' certificates (company)	4
Free miners' certificates (special)	1
Claims recorded (mineral)	275
Claims recorded (placer)	1
Certificates of work recorded	504
Agreements, transfers, etc.	107

ARROW LAKE MINING DIVISION.

WALTER SCOTT, MINING RECORDER (OFFICE AT NAKUSP).

I have the honour to submit the annual report of the Arrow Lake Mining Division for the year ending December 31st, 1917.

At the *Millie Mack* a force of men has been working all summer, and has 40 tons of ore ready for shipping to the smelter as soon as roads are in order for hauling.

Meadow Group.—The owners of this property shipped 1½ tons to Trail smelter as a test sample.

Big Ledge.—No extra development-work has been done on this property further than the ordinary assessment-work. This vein shows a very large outcrop of zinc.

OFFICE STATISTICS—ARROW LAKE MINING DIVISION.

Free miners' certificates issued	34
Certificates of work recorded	16
Mineral claims recorded	16

ROSSLAND DISTRICT.

TRAIL CREEK MINING DIVISION.

Report by H. R. Townsend, Gold Commissioner.

I have the honour to acknowledge receipt of your letter of the 23rd instant, requesting me to forward my report as Gold Commissioner. In reply, I beg to inform you that I requested the proper officials at the mines here to supply me with this information some time ago, and they informed me that they would supply me with the desired information, but they also stated that this information had already been supplied to the Provincial Mineralogist. No new mines have been working in this district during the last twelve months. Below you will find the office statistics, which show an increase in most cases over the year before.

Office Statistics—Trail Creek Mining Division.

Mineral claims recorded	79
Certificates of work	68
Bills of sale	10
Partnerships	2
Leases of reverted mineral claims	21
Free miners' certificates (individual)	132
Free miners' certificates (company)	9

SOUTHERN DISTRICT (No. 4).

REPORT BY PHILIP B. FREELAND, RESIDENT ENGINEER.

The Southern Mineral District includes the Grand Forks, Greenwood, Osoyoos, and Similkameen Mining Divisions. The writer regrets that the shortness of the season and the many calls for assistance from the Government in building roads and trails prohibited any time being spent on the study of the geological conditions of the different Divisions. However, some of the most likely mineral-bearing localities have been already reported on by the Geological Survey of Ottawa, and these reports can be had on application to the Geological Survey, Ottawa.

There has been a marked activity throughout the entire district in the prospecting for both metallic and non-metallic minerals, especially those which are necessary for munition-making and for use in the upbuilding of our industries.

Hitherto a great many minerals were imported to this country from Europe. These imports are closed to us during the war, and will probably be for some time after it ceases, owing to the necessary demands for material for the upbuilding of the areas that have been destroyed.

Below is a list of the minerals required for munition-making and other purposes:—

Metallic Minerals.—Manganese, tungsten, molybdenum, antimony, chrome, sulphur ores, platinum, tin, zinc, copper, lead, and iron.

Non-metallic Minerals.—Bauxite, magnesite, fluorite, flake-graphite, strontianite, fireclay, sheet mica, potash, and phosphate.

Although most of the above minerals may not be needed in large quantities, yet the present high price of the products is an incentive for intensive prospecting and development, and may be the means of establishing permanent domestic industries.

In the Grand Forks Mining Division fair showings of chromite have already been discovered, the serpentine being particularly favourable to the occurrence of chrome ore.

Strontianite float was discovered two miles and a half up the Ashnola river, in the Osoyoos Mining Division, late in the fall. Further investigation was impossible owing to the depth of snow.

GRAND FORKS MINING DIVISION.

Emma. Owned by the Consolidated Mining and Smelting Company and situated in Summit camp. This mine has more than doubled its production during the last year, the amount of ore shipped to the Trail smelter being 33,976 tons, as compared with 14,000 tons in 1916.

Union. This property is situated forty-one miles north of Grand Forks, in the Franklin camp, being one-quarter mile west of Burrell creek and approximately 3,000 feet above sea-level, on a good wagon-road. This mine has been shipping at irregular intervals to the Granby smelter at Grand Forks, the total aggregating 751 tons.

Some analysis has been made upon the ore for milling purposes, giving as high as 90 per cent. extraction by flotation. The present owners are endeavouring to obtain enough capital to install a mill and treat the ore at the mine. By this means the heavy transportation charges would be eliminated and the mine put on a paying basis.

The average value of ore shipped to the smelter at Grand Forks is $30. Transportation by motor-truck, $15 a ton; transportation by railway, $1.50 a ton; smelter treatment, $6.75 a ton. These costs plus mining charges leave practically no margin for the operators.

The mine is well situated for operation, having plenty of water for milling purposes within a quarter of a mile, and by going up the river for half a mile sufficient fall could be obtained for the generation of power.

At present the ore has to be hauled twenty-seven miles over a wagon-road to Lynch creek, where the Kettle Valley line terminates; from thence by rail to Grand Forks, a distance of seventeen miles. It is to be hoped that the owners will be successful in their endeavour to interest capital sufficiently so that proper machinery may be installed and the mine put on a running basis.

The geology of the district has been reported on by C. W. Drysdale, Geological Survey of Canada, 1911; also a report by A. G. Larson, M.E., and C. S. Verrill, M.E., appears in the Annual Report for 1914, which deals with the property in detail.

Further ore-bodies were developed during the year by a crosscut tunnel driven north.

Mastodon. This claim is situated close to the International Boundary-line and about 4,000 feet from the Canadian Pacific Railway near Cascade, at an elevation of 3,200 feet. A general report on the district is given by R. A. Daly in "The Geology of the 49th Parallel," Memoir No. 38, 1912, Geological Survey, Ottawa.

The above claim was staked for some years, the presence of chromite being undetected until the summer of 1917, when The Stewart-Calvert Company, of Oroville, Wash., U.S.A., obtained a lease for $5,000 for a period of one year and a half.

Very little development has been done on the property up to the present, the ore-body being stripped for 75 feet and a shaft sunk alongside the ore 10 feet deep. The ore seems to be in lenses varying in width and length, carrying values from 30 to 50 per cent. chromium. The surrounding rock (serpentine) carries from 3 to 10 per cent. chromium. Very little can be said as to the extent of the ore-body at the present time, but its transportation facilities and the high price of the metal make it a property worthy of further attention. The writer visited this property in December, the snow on the ground making a thorough investigation impossible.

Original. This claim, situated on Granby river (North fork of Kettle) has shipped 38 tons of ore.

Berlin. This property, owned by the Inland Mining Company and situated four miles east of Paulson, adjoins the old *Inland Empire* claim, now called the *Inland*. A shaft has been sunk 25 feet on a quartz lead, developing a fairly high-grade ore-shoot. Drifts have been driven both ways from the shaft on the lead, and a car-load of picked ore shipped to the Grand Forks smelter, assaying between $90 and $100 to the ton in gold and silver.

The lead averages from 6 inches to 2 feet 6 inches in width and dips nearly vertical. Development-work is being carried on by machines, and since January 1st another car-load has been shipped. The total tonnage shipped in 1917 was 59 tons.

Molly Gibson. A few feet of crosscut tunnelling was done under contract with the idea of tapping an inclined shaft showing some ore at the bottom. The contractors, however, threw up the contract before the shaft had been reached. No further work has been done since.

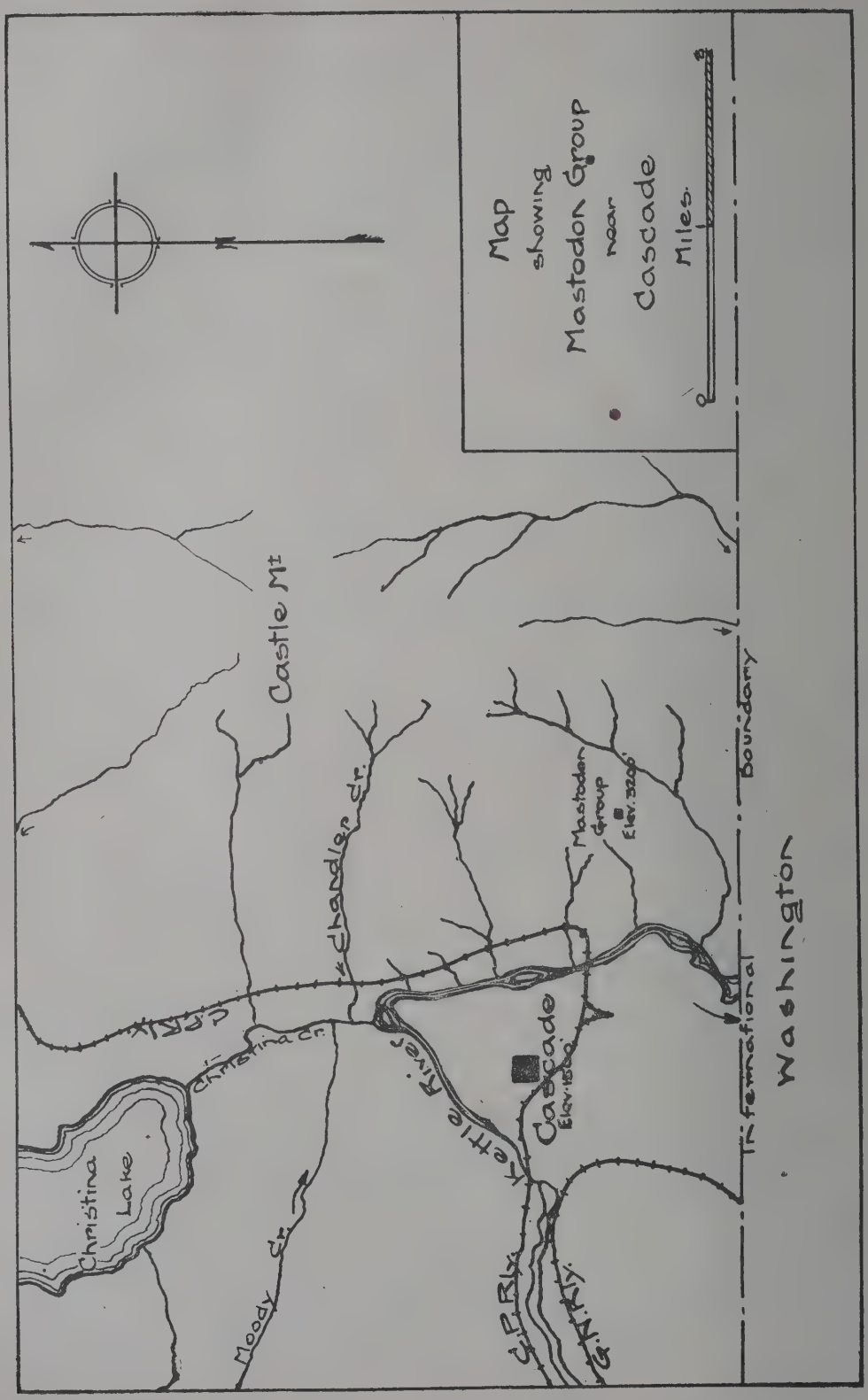
Waterloo. Situated thirty-three miles from Edgewood (Arrow lake), on Lightning peak. Elevation 5,460 feet above sea-level. Lead about 4 feet wide, striking east and west, carrying gold and silver. Samples from ore sacked assayed high in silver. Development-work consists of open-cuts and tunnels. The lead has not been developed at any great depth up to the present.

This is a promising prospect and worthy of further exploration. The chief difficulty is transportation, which will be facilitated by the building of a snow-trail around Gallopin mountain to join the Edgewood-Vernon road. This trail was commenced late in the fall of 1917, but snow-storms prevented its completion. Assistance was given by the Government towards building this trail.

Equinox. This group, consisting of four claims—*West Fork*, *First Chance*, *Jim Hill*, and *St. Paul*—is situated thirty miles north-west of Edgewood (Arrow lake), at an elevation of approximately 5,825 feet above sea-level. The lead averages 1 foot in width, carrying silver, lead, and iron. Samples of ore shipped assayed 180 oz. silver and 18 per cent. lead; and samples of ore on dump assayed 0.02 oz. gold, 37.5 oz. silver, and 41 per cent. lead.

Transportation forms the chief difficulty at the present time, all the ore having to be packed out over a bad trail on horses. The trail to be built to the *Waterloo* claim will pass close to the workings of the *West Fork* claim and thereby make shipping possible.

Oro Denoro. This mine has shipped 243 tons of low-grade ore carrying gold, silver, and copper values.


Map
showing
Mastodon Group
near
Cascade
Miles
Castle Mt
Chandler Cr.
Christina Cr.
Christina
Lake
Moody Cr.
Kettle River
Cascade
Elev. 1350'
Mastodon
Group
Elev. 3200'
C.P.R.Ry.
G.N.Ry.
Trans-Continental
Boundary
Washington

B.C. This old property has been leased by the Canada Copper Corporation to A. Luciani, of Phoenix. The lessee took out some ore from the old open pits adjoining the shaft, and also sorted over the dumps, with the result that 675 tons of second-class copper ore was shipped to the Greenwood smelter.

Maple Leaf. This claim adjoins the *Union Fraction* on the north. A new ore-body has been stripped over an area of 200 feet during the past year, containing values in native copper and copper carbonates on the surface. A tunnel has been driven approximately 25 feet under this showing and some chalcopyrite found intermingled with the rock. At present the ore is too low grade to permit transportation to Grand Forks smelter, but further development the owners hope will encounter richer bodies.

Rock Candy Group. Situated on Kennedy creek, four miles in a westerly direction from Lynch creek, a tributary of Granby river. The writer was unable to visit this property, but a report by the agents of The Stewart-Calvert Company, of Oroville, intimate that there is a considerable quantity of fluorspar, stripped, 300 feet in length and approximately 20 feet wide. An analysis of this deposit has not come to hand up to the present.

Mother Lode. Owned by the Contact Consolidated Gold Mines, Limited (Henry Jackson, manager, Paulson, B.C.), and situated in Burnt basin. In the Summary Report of the Geological Survey of Canada, 1901, prospectors were advised to be on the look-out for platinum in the Boundary Creek district of British Columbia. The special reasons for suspecting the occurrence of platinum in West Kootenay and the Boundary Creek districts were:—

First: The general resemblance in many essential particulars between the rocks and ores of these districts and those of the Similkameen.

Second: The presence of masses of basic eruptive rocks now frequently altered to serpentines, rocks in which platinum has been most frequently found in-place, and which seem to be the chief source of the platinum in the Similkameen.

Third: The fact that the chalcopyrite-pyrrhotite ore-bodies of these districts, sometimes slightly nickeliferous, bear a marked resemblance to the platinum-bearing copper-nickel deposits of Sudbury, Ontario.

The subsequent discovery of platinum in the copper ore of the *Rambler* mine, Wyoming, in the same form (sperrylite) as in the Sudbury copper ores, further emphasized this possibility.

Development on the *Mother Lode* claim consists approximately of the following: Tunnels, 300 feet; shaft, 65 feet; open-cuts, 70 feet. The veins occur in disturbed areas where porphyry dykes are most numerous, and vary from 1 foot to 2 feet 2 inches, being chiefly auriferous quartz. The strike is approximately N. 70° W. (mag.).

The quartz has small amounts of metallic sulphides scattered through it; pyrite, galena, and zinc are the most common, the occurrence of chalcopyrite and molybdenite also being noticeable. Quantitative tests showed values in platinum from 0.25 oz. a ton to 0.05 oz. a ton and in other samples *nil*. It is evident that the platinum is unevenly distributed through the vein.

GREENWOOD MINING DIVISION.

GRANBY CONSOLIDATED MINING, SMELTING, AND POWER COMPANY.

The following constitutes the report of the operations at the Granby mines at Phoenix for the fiscal year ended June 30th, 1917, by C. M. Campbell, superintendent:—

"Operations for the year ending June 30th, 1917, were seriously curtailed by coke shortage. The Crowsnest coalfields, from which the supply of coke comes, has been the centre of more far-reaching labour troubles than have occurred in all the other coalfields and metal-mines in British Columbia combined.

"Time after time the industries of the whole country which depend on coke, almost from Winnipeg to the West Coast, have had to curtail operations until the men and operators settled their disputes. During the period covering this report their troubles seem to have been unending, and the result from our standpoint was that our shipments were reduced one-half during the months of December, January, February, and April, while the property was shut down entirely as far as shipments were concerned during May and June. This state of affairs is not only responsible for higher costs, but the efficiency of the organization has been noticeably impaired by the loss of many capable employees.

"*Shipments.*—Total shipments from all sources amounted to 677,292 tons. The following table shows the distribution of this tonnage and the ore shipments to date:—

	Tunnel Ore.	Shaft Ore.	Gold Drop.	Ore Totals.
	Tons.	Tons.	Tons.	Tons.
Prior to July 31st, 1916	6,075,674	4,560,450	1,512,000	12,148,134
Year ending June 30th, 1917	74,365	479,173	123,754	677,292
Total to date	6,150,039	5,039,633	1,635,754	12,825,426

"*Recovery.*—From the year's shipments the smelter reports a recovery per ton of 13.52 lb. copper, 0.177 oz. silver, and 0.027 oz. gold.

"*Development-work.*—Development amounted to 8,900 feet, averaging 16 cents per ton of ore, and cost 12.2 cents per foot.

"Diamond-drilling for the year amounted to 6,502 feet and the total to date is 119,122 feet.

"*Costs.*—Cost per ton of total output, crushed, on cars, including all development and removal of 233,785 tons of waste, was $1.175. Wage bonuses amounted to 15.7 cents per ton. Increase cost of supplies over pre-war prices amounted to 11.2 cents per ton; Workmen's Compensation Fund, 1.5 cents per ton. The reduction in freight rates due to the completion and operation of the Kettle Valley Railway lowered the cost 0.7 cents per ton. These particular items aggregated 27.7 cents per ton over normal pre-war conditions.

"The expense incurred in handling waste cannot be considered as so much waste, as we have been able to use the waste in many places as stope-filling, and thus hold up ground directly underneath buildings and railroad-tracks, which otherwise would have to be supported by extra pillars of ore.

"Costs were also increased due to the fact that the ore-bodies now mined are smaller, flatter, and farther away than heretofore. The intermittent nature of the shipments, due to reasons already referred to, also worked against a low tonnage cost.

"It is important to note that the mining of the low-grade ore is not curtailing the production of the regular grade of ore. If the higher price of copper did not allow the low-grade ore to be shipped, the tonnage would have been reduced by one-half. Not only that, but the cost would have gone up, as a certain amount of low-grade ore has to be mined, anyway, it being sorted out as waste, except under present conditions.

"*Ore remaining and Grade.*—As in previous years, due to the high price of copper, we were able to increase our shipments by mining a considerable tonnage of low-grade ore not hitherto considered an asset.

"This low-grade ore amounted to 294,622 tons, and the total of ore developed has been increased to this extent. Further development, chiefly by the extension of the *Gold Drop* stopes, added 46,670 tons, and the total increase is therefore 341,292 tons. The present condition of the ore reserve is therefore as follows:—

	Gold Drop.	Ironsides.	Totals.
	Tons.	Tons.	Tons.
Ore developed	1,685,754	14,414,668	16,100,422
Mines have produced	1,635,754	11,189,672	12,825,426
Ore remaining	50,000	3,224,996	3,274,996

"From this we estimate that a recovery of 17 lb. copper and 75 cents in gold and silver can be maintained. There is a considerable amount of low-grade ore of which a reliable estimate is impossible, but which will approximate 300,000 tons. This will give a recovery of 9 lb. copper and 60 cents in gold and silver. In addition to this ore there is also the *Grey Eagle* ore-body, containing 50,000 tons of iron flux. This will run 0.20 per cent. copper; trace in silver; 0.02 oz. gold; 18 per cent. silica; 30 per cent. iron; 10 per cent. lime; 5 per cent. sulphur."

GREENWOOD.

Big Copper. This mine has been under lease and bond to J. Poggi, who shipped 683 tons of copper ore, some to Grand Forks and some to Greenwood smelter. The *King Solomon* mine, which adjoins the *Big Copper*, shipped 267 tons of high-grade copper ore to the Greenwood smelter.

Surprise No. 3. This mine, situated about two miles south-west of Phoenix, in the Skylark camp, is under lease and bond to Mike Kane, Joe Cunningham, and Axel Gustafson, of Phoenix, B.C. Development-work consists of one shaft 40 feet deep, one drift 30 feet, and 20 feet of trenching. The shaft is sunk on the lead, which is nearly vertical and about 4 feet wide. The lead in the tunnel is continuous, averaging about 2 feet and containing about 1 foot of chalcopyrite and copper carbonates. The same amount of ore is apparent in the bottom of the shaft. Samples from across the ledge at the bottom of the shaft assayed a trace in gold, 1.0 oz. in silver, and 7.4 per cent. copper.

The entire claim and vicinity is covered with a heavy gravel-wash from 6 to 10 feet deep, which makes the prospecting for the continuance of the lead a difficult matter. A trench 50 feet east of the main workings uncovered the lead and showed values in chalcopyrite and copper carbonates. A good road, branching from the highway between Phoenix and Greenwood, a quarter of a mile below the former, runs up to within 200 feet of the workings. The wall-rock seems to be a siliceous limestone, slightly impregnated with iron pyrite.

Elkhorn. This property, which is near Greenwood, has been under lease to Rowe & Mathews. A few tons of silver ore was shipped to the Trail smelter.

Prince Henry. This claim was leased to Johnson, Sorturne, Nelson & Christensen, of Phoenix, for a few months. Seven tons of silver ore was shipped to the Trail smelter.

Tip Top. Twenty-five tons of gold and copper ore was shipped to the Greenwood smelter.

CAMP MCKINNEY.

A revival of interest was shown in this locality during the year, when a number of claims were restaked and bought in and around the old camp. It is generally understood that the high-power electric line from Greenwood will pass through this camp in the near future, which may offer better facilities for power for operating purposes.

The Great Northern Railway passes through Bridesville, a distance of approximately seven miles from Camp McKinney. In the past, wood was used for fuel and all supplies were brought in from Midway by wagons, a distance of approximately twenty-five miles. It will be readily understood that the improved fuel and transport conditions of the future will make a vast difference in the cost of operating the mines in this camp.

CANADA COPPER CORPORATION.

The *Mother Lode* mine has been running steadily throughout the year, with the exception of a few weeks on account of coke shortage at the smelter at Greenwood. Total tonnage shipped amounted to 176,392 mine-run and sulphides. The *Sunset* mine shipped 2,155 tons.

BEAVERDELL.

Revenge. This claim and the *Sunset Fraction* and *Bell Fraction* are owned by G. Barrett, of Carmi. Work was commenced in the summer of 1917 on a new surface showing and some 25 feet of open-cut work had been accomplished, also 30 feet of stripping. No appreciable amount of ore had been blocked out in October, 1917, although the surface showings carried good values in silver and lead. A letter from the owner in January stated that a tunnel started from the lower open-cut had developed satisfactorily and that he hoped to ship some ore in 1918.

Kokomo. This claim is also owned by G. Barrett, Carmi. Twenty-four tons of silver-lead ore was stoped and shipped from the old workings to the Trail smelter.

The *Bounty Fraction* shipped 17 tons to Grand Forks.

Sally. This mine is located on the eastern face of Wallace mountain. The property was operated until the beginning of 1910 by the Vancouver and Boundary Creek Development Mining Company, Limited. During 1910 and 1911 the mine was shut down. Since that time work has been carried on, by lease, periodically.

In 1917, 117 tons was shipped to Trail and Grand Forks smelters. The main development has been carried on by tunnels and crosscuts along the fault-planes cutting the veins, also by open-cuts, and amounts to approximately 2,500 feet. The ore was shipped by wagon, a distance of approximately two miles and a half, to Beaverdell Station, on the Kettle Valley Railway, and from thence to the smelter.

The ore occurs in shear-zones in an acid-quartz diorite. The shear-zone dips generally about 60 degrees to the south. These zones are displaced by numerous faults striking in a northerly direction and dipping west.

The ores in the *Sally* tunnel consist of galena, pyrite, sphalerite, tetrahedrite, and pyrargyrite in a gangue of sericite, quartz, and altered rock. Native silver is found in the fault-planes and occurs in a gangue of chlorite, calcite, etc. Surface alteration has probably caused the formation of native silver.

Rambler. This claim, lying on the southern slope of Wallace mountain, is owned by W. H. Rambo, and is mentioned in the report of the Provincial Mineralogist in 1901. Since then some work has been done in the tunnels and on the surface, but no great amount of ore has been discovered. The country-rock is quartz diorite accompanied by aplite dykes. Forty-one tons of ore was shipped.

Black Diamond. This claim and the *Standard Fraction*, situated on Dry creek, have been operated by P. Kennedy, of Beaverdell. There are three inclined shafts, which are part of the old workings. Latterly some 150 feet of open-cuts and drifts have been driven under an iron-capping. No large quantity of ore has been encountered up to the present.

Beaver. Owned by Jas. Sutherland. Work commenced late in the summer. A tunnel 50 feet has been driven and open-cuts 10 x 10 feet. A small lead has been discovered carrying lead, silver, and some iron. In October, 1917, no ore had been shipped.

Bell. This claim is at present under lease and bond for one year to Oliver & McIntosh on a royalty basis. Several hundred feet of tunnel-work has been done below the old workings and ore has been taken out and shipped, amounting to 206 tons of silver and lead ore, to the Trail and Granby smelter. The grade of the ore shipped is generally lower than when the mine was worked in 1910 and 1911, the better facilities for transportation making this possible. Freighting from the mine to Beaverdell Station amounted to $3.50 a ton; railway and treatment to Trail smelter, $15 a ton.

The ores occur in shear-zones in an acid-quartz diorite. As in the *Sally* mine, the shear-zones are displaced by numerous faults, which make proper development difficult. In October the lessees were driving a tunnel in below the present workings in hopes of striking the lead at a greater depth.

Nepanee Group. This property consists of the *Nepanee*, *Nepanee Frac.*, *Nevada*, *Nevada Frac.*, and *Cobalt Frac.* claims. These claims lie towards the south-eastern part of Wallace mountain and are owned by M. J. Cummings *et al.*, of Beaverdell. The upper workings consist of an incline shaft 70 feet deep; 300 feet to the north-west is a 30-foot shaft, two open-cuts, and some drifting. Assays from the incline shaft averaged $14 in gold and silver and carried about 3 per cent. copper.

The shaft is in a zone of hornblende diorite porphyry of the Wallace group; the hanging-wall is well defined, but not the foot-wall. The strike of the lead seems to be south-east and dips about 42 degrees to the north. The ores consist of pyrite and arsenopyrite.

Lower down the hill, approximately 50 feet, a tunnel has been driven, since the above work was accomplished, a distance of 105 feet without striking the lead. At the mouth of this tunnel some float was discovered carrying good values in silver and lead. From this a small lead was uncovered, and the present owners have started an open-cut to try and develop the ore.

Kettle River.

Scandia. This claim, lying about three miles and a half south-east of Beaverdell, is owned by Mark Smith and leased by Eric Jackson. Considerable work has been done by the lessee to improve the property. Development consists of one tunnel 40 feet, one winze 12 feet, and some open-cuts and stripping. A good log cabin has also been built. The lead, carrying silver, gold, lead, and zinc, averages about 8 inches in width and strikes in an easterly and westerly direction, dipping about 60 degrees to the north.

O.K. Group. This group, consisting of the *Oro Fino*, *O.K.*, *Ivanhoe*, *Liberty*, and *Tip Top Frac.*, was located in 1897. The group is situated in the Triple Lakes region, on the summit of Kloof ridge, and approximately six miles from the Kettle river. The ore in the *O.K.* consists of pyrrhotite and pyrite disseminated through a fine-grained igneous rock. Owing to the dense growth of pine it was very difficult to see the country. The claims have not been worked for many years. Selected samples from some of the prospect-shafts gave an average of $5 a ton of gold. This property was reported on by W. F. Robertson in the Minister of Mines' Report, 1901.

Mogul. This claim lies on Lake Ridge, about one-half mile east of Triple lakes, on the eastern brow of Horseshoe mountain. Reported on by W. F. Robertson in the Minister of Mines' Report, 1901. General samples taken from the dump out of the shaft assayed $20.40 in gold and 1 oz. in silver to the ton. J. D. Galloway also reported upon this claim in 1913, getting assays as high as 3.85 oz. in gold and 0.6 oz. in silver to the ton.

The workings are at present in a dilapidated condition and unsafe. These constitute a shaft about 50 feet deep and an open-cut 10 feet long. The vein is quartz in a quartz diorite cut by basic volcanic dykes, and on the surface appears to average 1.6 feet in width.

Since the above work was done a wagon-road has been built up the Kettle river to within two miles of the claim. This claim was originally owned by R. Roberts *et al.*, of Greenwood, B.C. The present owners are unknown.

Barnato. This claim lies to the east of the *Mogul* and nearer the Kettle river. This claim is owned by Sam Larsen, of Rock Creek, B.C. No work has been done on this claim for some time and the workings had caved to some extent in October, 1917, making a thorough investigation impossible. The shaft is supposed to be 40 feet deep, and one open-cut is 5 feet wide and 12 feet long, the other being 25 feet long and 10 feet wide. The lead on the surface averages 2.6 feet of quartz carrying some pyrite and arsenopyrite. General assays gave 0.5 oz. in gold and 0.1 oz. in silver to the ton.

Silver Dollar. This claim lies on the northern end of Lake Ridge, about one-half mile south of the divide between Deer creek and the Triple Lake valley, Horseshoe mountain. The owners are Spankey & McMynn, of Greenwood, B.C. The workings consist of a shaft about 40 feet deep, with a crosscut tunnel driven into it 20 feet below the surface. The ore is pyrite, pyrrhotite, and arsenopyrite surrounded by a dense metamorphosed igneous rock, probably a tuff, cut by light-coloured granitic dykes. Only traces of gold and silver were obtained from general samples taken from the dump. This claim was reported on by the Provincial Mineralogist in 1901, when values were obtained from the quartz in the dump assaying $16.40 in gold and 0.6 oz. in silver.

OSOYOOS MINING DIVISION.

Oregon Group. This group of claims is situated four miles south-west of Hedley, B.C., on the east side of the Similkameen river and approximately 4,000 feet from the Great Northern Railway. These claims can be reached by wagon-road and trail from Hedley—i.e., road four miles and trail one mile and a half. The group includes the following mineral claims: *Oregon*, *St. Bernard*, *Savage*, *Winchester*, *Two Sisters*, *Oregon Fraction*, and *Winchester Fraction*, comprising an area of 211 acres.

A good deal of development-work has been done upon the *Oregon* claim to try and prove the extent of the ore-body. The upper tunnel has been driven 35 feet, mostly in ore, and one crosscut tunnel, 8 feet long, from this tunnel, all in ore (August 2nd, 1917).

There are two lower tunnels about 70 feet down the hillside, driven in, apparently, below the ore-body, for no values were discovered. At present there is well over 100 tons of ore piled

outside the upper tunnel. An open-cut above the upper tunnel shows plenty of mineralization. The lowest-grade sample, cut along the side of the upper tunnel, assayed 1 per cent. copper, 0.9 oz. silver, and 0.06 oz. gold; the highest assayed 3.90 per cent. copper, 3.40 oz. silver, and 0.12 oz. gold.

Transportation at present is carried out over a steep trail. Should the mine develop, any ore taken out could be cheaply handled by cable to the flat below.

This deposit seems to be of the contact-metamorphic class, being an intrusion of diorite gabbro into the sedimentary limestone, principally a garnet and epidote.

The chief minerals in evidence are bornite, chalcopyrite, arsenopyrite, and pyrrhotite. The ore strikes north-east and south-west. Up to the present the continuance of the ore-body has not been discovered; the tunnels below the outcrop have not been driven far enough to ascertain the possibility of the ore dipping nearly flat into the hill.

Claremont Group.

This group, which is situated on Siwash creek, can be reached by trail from Jellicoe Siding, Kettle Valley Railway, a distance of approximately fifteen miles. A considerable amount of development-work has been done to try and locate the continuance of the ore body, as follows: No. 1 upper tunnel, 198 feet; No. 1 crosscut, 33 feet; No. 2 tunnel, 61 feet; No. 2 crosscut, 27 feet; No. 3 tunnel, 180 feet; total, 499 feet; and also some open-cuts in the gravel-wash approximately 10 feet long. Samples taken across the lead in the upper tunnel assayed 269.8 oz. silver and 0.1 oz. gold to the ton. The principal ore is galena, carrying some iron.

The vein seems to strike in a northerly direction and dips 45 degrees to the east, varying in width from a few inches to a foot, and continues as fas as development has gone in the upper tunnels. The distance from the mine to the railway forms one of the chief difficulties at the present time. Should the mine develop, however, easy grades could be obtained for a wagon-road. The owners are to be congratulated upon the systematic way they are developing the property.

Spotted Lake.

This lake lies approximately one-half mile north of the southern entrance to Richter's pass and has been purchased by the Stewart-Calvert Company, of Oroville, Wash. About twenty men have been employed during the dry period of the season, digging out the magnesium salts from the surface of the lake and transporting them by auto-truck to the Oroville plant for treatment. A large tonnage of these salts is shipped to the Eastern States, where they are used in the preparation of leather. The amount shipped from the lake to the plant in 1917 was 900 tons.

Keremeos.

Copper King.

This group consists of the following claims: *Copper King*, *Copper Hill*, *Mountain Lion*, and *Copper King Extension*. The group lies closely to Olalla, on the west side of the valley, at an elevation of approximately 3,400 feet above sea-level, and four miles north of Keremeos, on the Great Northern Railway. There are some good surface showings of chalcopyrite and magnetite lying close to the contact of lime and granodiorite, the lime being well altered and mineralized.

A shaft 30 feet deep sunk through the magnetite-capping develops some chalcopyrite in the bottom; also a tunnel 20 feet long and 30 feet below has been driven with the intention of tapping the bottom of the shaft, but not finished; also two crosscut tunnels 25 feet and 65 feet respectively have been driven across the lime towards the contact, but also not carried far enough to prove any depth on the ore-body.

Four tons was shipped to the Grand Forks smelter for trial in November. This shipment averaged about $24 a ton in silver and copper. This ore was taken from the upper tunnel.

The property has been under lease to A. Hagelberg, Olalla; owner, R. W. Northern, Olalla, Keremeos. Transportation charges to the smelters make it very difficult for the mining men in this district to develop their properties.

Golconda.

This property adjoins the *Copper King* on the north-west and is owned by Dan and Archie McEachern, of Olalla. Over 100 feet of tunnel has been run on the lead, and 4,390 lb. of molybdenite, containing 751 lb. of MoS_2, was shipped to Ottawa. Two tons of copper ore was also shipped, assaying about 19 per cent. copper. The molybdenite lies in small lenses and can easily be extracted.

Dolphin. This claim is situated on the east side of the Olalla Valley and is owned by Jordan & Brown, Olalla. Three car-loads, amounting to 72 tons, of gold and copper ore was shipped during the year.

Horn Silver. This group is situated on the east side of the Similkameen river and approximately seven miles in a southerly direction from Similkameen Station, on the Great Northern Railway. The group includes the following claims: *Horn Silver*, *Golden Horn*, *Silver Plate*, *Cornia Copia*, and *Ally*. The *Horn Silver* has been Crown-granted for three years. The present owners are Mrs. Powell, Victoria; Jones & Rant, Victoria; and B. Powell and Condit Bros., Similkameen.

Development consists of several hundred feet of tunnel on the vein, also incline shafts and upraises. A 30-ton bunker was installed, and a ½-inch cable, 3,000 feet long, supported by wooden towers and carrying wooden buckets having a capacity of 150 lb. each. A Winton Four engine is at present used to drive a Canadian Rand compressor, which supplies air for two small pneumatic drills.

There are two veins varying in width from 1 to 5 feet and striking in a northerly and easterly direction respectively. The north vein has been stripped for several hundred feet, but does not, as far as development has gone, contain as high values as the east vein. One of the chief difficulties encountered in mining the ore is the present extreme flatness of the dip of the vein, which makes it impossible to stope the ore into the chutes on the levels.

There has been a considerable amount of faulting, chiefly to the south-east. Up to the present these faults vary, the biggest displacement being only 7 feet, whilst the smallest is about 1 foot. The best values, mostly in native silver, are found along the fault-planes.

The principal ores are native silver and argentite, some iron and small quantities of galena also being present. The vein, which is of the fissure type, is quartz, and cuts a medium coarse-grained granite formation.

The main workings are on the east vein, where a considerable amount of stoping has been done and about 18 cars of ore shipped to the Grand Forks smelter. Samples from car-load lots assayed as high as 393.4 oz. in silver and 1.02 oz. in gold, the lowest being 28.8 oz. in silver and 0.02 oz. in gold.

The cost of transportation, etc., is as follows: Shipping by motor-truck to Similkameen Station, $2.50 a ton; freight by Great Northern Railway to Grand Forks, $4 a ton; treatment at smelter, $5 a ton. This is a promising property.

Hedley.

Nickel Plate. This mine has been running steadily throughout the year and is the main producer of this Division. During the year the tonnage of ore mined and milled amounted to 71,207 tons. The treatment of the ore entirely by cyanide has been in operation during the year. The method used for agitation in the cyanide-tanks is well worthy of notice.

Riordan Mountain.

Billy Goat Group. This group is owned by J. Riordan and Morris, of Keremeos; it was mentioned by W. Fleet Robertson in the Minister of Mines' Annual Report for 1901. A considerable amount of surface development has been accomplished on the property, consisting of trenching and open-cuts, but none of the work has gone deep enough to prove the extent of the ore-deposits. The pyrrhotite-showings, which are mainly in evidence, carry values in gold and copper and are worthy of proper development.

SIMILKAMEEN MINING DIVISION.

Copper Mountain Group. Owners, Canada Copper Corporation, Limited. This group of claims is situated about ten miles in a direct line, a little west of south of Princeton, B.C., and at an elevation of approximately 4,200 feet above sea-level. Copper mountain was reported upon by W. F. Robertson, the Provincial Mineralogist, in August, 1901, and this report appears in the Annual Report of the Minister of Mines, 1901; also a general report of the district was made in 1906 by Chas. Camsell, of the Geological Survey of Canada. Since then development-work has been carried on extensively, especially on the *Sunset* and *Helen H. Gardner*. About $1,250,000 has been expended, including diamond-drilling,

118,000 feet; tunnelling, 90 per cent. of which is 9- x 10-foot tunnels, 12,800 feet; upraising, 3,000 feet; sinking, 936 feet; surface trenching, 32,000 feet. All this development-work has been done to ascertain, as nearly as possible, the size of the ore-bodies, the grade of ore, and the best possible means of handling a large tonnage in the cheapest manner.

A main working-tunnel is being driven below the ore-bodies. From this tunnel an upraise will be put in to tap the levels above, and the ore dumped into this upraise will be hauled to the concentration plant for treatment. The rate that this tunnel is being driven averages about 20 feet a day.

New bunk-houses, with steam heat and shower-baths for the men, have been built. A concentration plant and sawmill are also being constructed.

In connection with this company, the old cement plant near Princeton has been put into use for experimental purposes in ascertaining the possibilities of nodulizing the concentrates from the company's flotation plant. It is understood that these experiments were satisfactory, coal-dust being used instead of oil for fuel.

Summit Camp.

The following claims are located in this camp: *Lambert*, *Bluebell Frac. No. 1*, *Bluebell Frac. No. 2*, *Indiana*, *Morning Star*, *Sultie Chief*, and *Silver Chief*, all on and near Treasure mountain. Reports upon these claims will be found in the Annual Report of the Minister of Mines for 1913 and 1915.

The condition of the *Silver Chief* underground workings in 1917 was unsatisfactory. The timbers at the mouth of the lower tunnel having fallen in had allowed a considerable amount of debris to collect, thereby causing a flood of water 3½ feet deep for a distance of 300 feet back in the drift. Beyond this an upraise had been driven to the surface. The ground around the opening had caved, nearly filling the tunnel.

The vein seemed to be persistent in these drifts, having well-defined walls and carrying good values in silver and lead. With the present high price of metals it seems a great pity that a good showing of this kind should not be developed and some tonnage blocked out.

Red Star. Reported upon by W. Fleet Robertson, Provincial Mineralogist, in the Annual Report for 1900. Since the above report was made a crosscut tunnel has been driven in 300 feet at the foot of the hill. No ore has been encountered as yet in this tunnel.

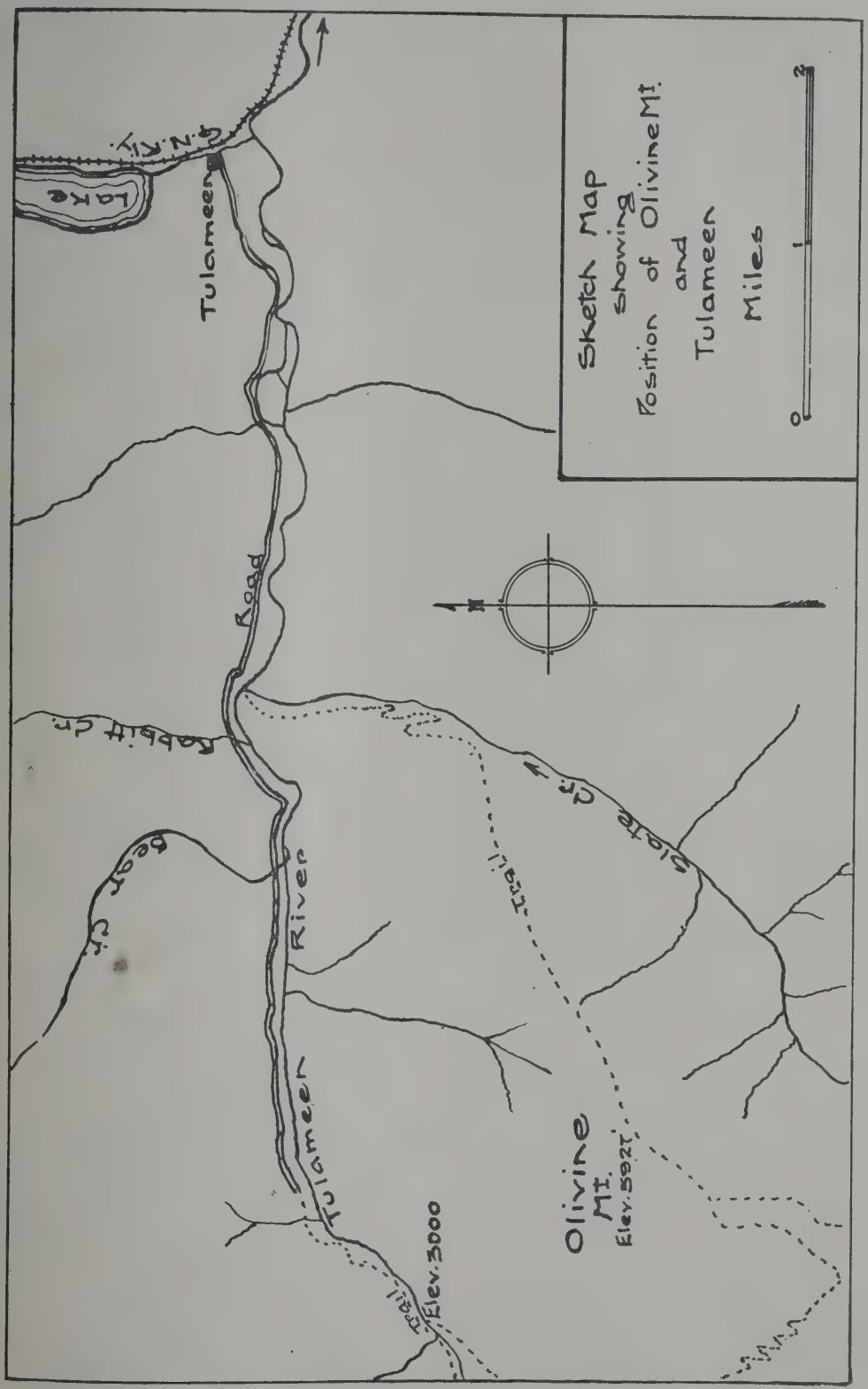
Britton Mountain. The group of mineral claims located on the mountain are owned by Mr. Britton, of Tulameen, and have been prospected by him for the last eighteen years. A great deal of development-work has been done in different directions without any large-sized ore-bodies being encountered up to the present. This mountain was mentioned in Chas. Camsell's Geological Survey Report in 1911, also by J. D. Galloway in the 1913 Annual report.

Olivine Mountain.

The copper-deposits on Olivine mountain lie to the south of the main peak and on the eastern slope at an elevation of approximately 5,500 feet above sea-level. The distance by road and trail from the Great Northern Railway at Tulameen is approximately eight miles and a half up the Tulameen river, and thence one mile and a half in a south-easterly direction. A short visit was paid to these in the fall of 1917, with the idea of reporting on them as possible copper-producing properties.

The claims visited are owned by A. Jensen, of Tulameen. Some development-work had been done by open-cuts and trenching, but no depth had been attained to prove the size of the ore-bodies or whether the values improved at depth.

The copper-deposits seem to lie wholly in the pyroxenite rock, which constitutes the larger portion of Olivine mountain. The pyroxenite is in places sheared and rendered schistose, and in these zones quartz veins have been formed, carrying a small amount of pyrite and chalcopyrite. The latter mineral is not generally disseminated throughout the pyroxenite, but only occurs, as far as could be seen, in small areas. General samples taken across these open-cuts gave traces in gold and silver and 0.5 per cent. copper. Samples taken by the Geological Survey of Ottawa in 1911 assayed as high as 3 per cent. in copper, but it is stated that the average grade of ore will probably not exceed that figure.


Sketch Map
showing
Position of Olivine Mt.
and
Tulameen
Miles
0
1
2
Lake
C.N.R.
Tulameen
Road
River
Tulameen
Elev. 3000
Olivine
Mt.
Elev. 5827'

A good deal of interest has been created over Olivine mountain during the latter part of the year on account of the high price of platinum and the demand for chromite, both of which metals have been discovered in variable quantities on different parts of the mountain. Whether or not the deposits contain a sufficient quantity of copper, gold, platinum, and chrome to be of economic value as producers remains to be seen.

A memoir on the geology and mineral deposits of the Tulameen district by Chas. Camsell can be obtained from the Geological Survey Branch, Ottawa.

BOUNDARY DISTRICT.

GREENWOOD MINING DIVISION.

Report by W. R. Dewdney, Gold Commissioner.

I have the honour to submit the annual report on mining operations in the Greenwood Mining Division for the year 1917.

Canada Copper Corporation, Ltd.—

Tons of ore treated at smelter	196,856	
Production of smelter—		
Blister-copper	4,247,316	lb.
Gold	9,582	oz.
Silver	46,355	oz.
Average number of men employed—		
Smelter	60	
Mother Lode	70	
Lone Star	20	
Principal ore shipments—		
Mother Lode Mine	176,392	tons.
Lone Star mine (Washington)	5,704	,,
Napoleon (Washington)	466	,,
Queen Victoria mine	32	,,
Sunset mine	2,155	,,
Oro Denoro mine	243	,,
B.C. mine	675	,,
Big Copper	398	,,
Other custom ores	10,791	,,
Total wages paid—		
Smelter	$ 81,753	25
Mother Lode	108,577	75
Lone Star	8,686	10

The Granby Consolidated Mining, Smelting, and Power Co., Ltd.—

Tonnage shipped	492,051	
Development—		
Drifting	1,459	feet.
Raising	4,509	,,
Diamond-drilling	3,962	,,
Average number of men employed	318	
Amount paid out in wages	$405,000	

The mine was closed down during the months of May and June on account of labour trouble at Fernie. There were no new additions to plant equipment of consequence.

Consolidated Mining and Smelting Co. of Canada, Ltd.—During the year 1917 there was 33,976 tons of ore shipped from the *Emma* mine. Thirty-six men were employed underground and fifteen on the surface. There was no special construction outside of the new school-house for the benefit of the men employed.

The following development was done during the year:—

Drifting and crosscutting	1,302	feet.
Raising	573	,,
Sinking main shaft	34	,,
Diamond-drilling	3,056	,,

WALLACE MOUNTAIN, NEAR BEAVERDELL.

The *Bell* mine, leased to Oliver & McIntosh, has been worked during the whole of the year, and the following is a summary of ore shipped and values received:—

To the Granby Consolidated Mining, Smelting, and Power Co., Ltd., Grand Forks—	
Dry weight	71 tons.
Silver	2,837.06 oz.
Net smelter returns	$1,809.69
To the Consolidated Mining and Smelting Co. of Canada, Ltd., Trail—	
Dry weight	164 tons.
Silver	35,378.79 oz.
Lead	26,400 lb.
Net smelter returns	$28,534.53

The total wages paid out, not including the management, was $4,320.26. The average number of men employed was four.

Sally.—The following is the result of the operations of this mine for the year: Shipped to the Granby and Trail smelters, 117 tons, containing 3 oz. gold, 10,808 oz. silver, and 3,296 lb. lead.

I am indebted to Eric E. Jackson, of Beaverdell, for information regarding the claims surrounding Beaverdell and Carmi, as follows:—

Revenge.—Adjoins the *Bell* and is owned and operated by George Barrett, of Carmi. The group consists of the *Revenge*, *Bell Fractional*, and the *Sunset Fractional*. About 140 feet of drifting and crosscutting has been done and considerable open-cut work. Six tons of ore has already been taken out and the stope has been opened up ready to start stoping. The pay-shoot will average 5 inches of first-class ore. A good trail, 3,000 feet long, has been built from the main wagon-road to the camp, and 1,500 feet still has to be built to reach the tunnel. Two men are at present employed on the property.

Kokomo.—Owned by G. M. Barrett. Twenty-four tons of first-class ore was shipped during 1917 and about 60 feet of drifting accomplished.

Napanee Group.—Development consisted of 75 feet of cross-tunnel work and considerable surface work. Owned by E. G. Cummings and M. D. Schenck.

Standard Fractional.—This claim is now under lease to Nordman & Sons and is owned by W. H. Rambo. Development: Three tunnels on the *Buster* lead—No. 1 tunnel, 12 feet; No. 2 tunnel, 30 feet; and No. 3 tunnel, 30 feet. "A" tunnel is on the *Standard Fractional* lead. No. 1 raise put up 30 feet and No. 2 raise put up 30 feet; these raises are on ore and are of the nature of "raise and stope." Built a blacksmith-shop and ore-house and 1,200 feet of wagon-road. Sixteen tons of ore has been taken out and it is expected a shipment will be made before spring. Work has been continuous during the past five months and three men are at present employed.

Standard and Black Diamond.—Owned by Kennedy & Steeves. Development was 100 feet of tunnel, also 1,300 feet of wagon-road. One man employed at present.

Rambler Fractional.—The owner, W. H. Rambo, is working on this property and has 6 tons of ore ready for shipment.

Scandia.—Owned by M. Smith and leased to parties in Phoenix. A tunnel was driven 50 feet and considerable surface work done, also winze 20 feet deep. One man employed.

CARMI CAMP.

Askwith.—This claim, owned by Kinzett *et al.*, has been leased to Hennessey & Thadich. Development is by shaft 40 feet and tunnel 60 feet.

Nipper Group.—The owners are Dale, Morton & Sheridan. The ledge has been stripped and a 70-foot tunnel driven.

ARLINGTON CAMP.

Saunier & Gachain are working the *Lake Vale* and have taken out 10 tons of ore. The ore is quartz galena. The development consisted of sinking and drifting.

Greenwood.

Argo.—Ola Lofstad, manager of the Argo Mining and Tunnel Company, Limited, was kind enough to give me the following report on the *Argo* mine, situated near Greenwood:—

"When work was stopped temporarily in July last the tunnel had been driven a distance of 1,800 feet at a depth of about 600 feet from the surface. Mr. Freeland, the Resident Engineer for the district, inspected the tunnel in August, 1917, and gave it as his opinion that the quartz-bodies apparent on the surface would be found at the contact of the granite with the lower formations. He thought we were too low to do this, and by making an upraise at the face, of about 100 feet, we would be likely to encounter the quartz. Following his advice, we put on three men to start the upraise at a point 40 feet from the face, and are making good progress with the same. Owing to the slope of the hill we should reach our objective in considerably less than the 100 feet estimated as required if started at the face."

Providence.—This mine is leased to J. A. Morrison and is owned by the Providence Mining Company, Limited. The property lies close to the City of Greenwood and has lain idle for the past ten years owing to the difficulty in obtaining a lease on the mine from the owners. The drift from the main shaft is now in 100 feet and high-grade ore has been encountered; seven men employed.

Freemont.—Situated near the *Providence*, in Greenwood camp, and owned by Dr. Kingston *et al.*, of Grand Forks, has been leased to Joseph H. Duhamel. A lead 3 inches wide has been struck; the ore is silver, gold, and copper. Two men are at present employed. One ton of ore is ready to ship.

King Solomon.—This mine, situated in Copper camp, near Greenwood, and owned by D. C. Corbin, of Spokane, Wash., has been worked steadily during the year. Reports indicate that this property is quite profitable to the owner. I am unable to obtain particulars as to quantity of ore shipped or values received.

Big Copper.—Adjoins the *King Solomon*. This mine is under lease to James Poggi, who shipped 683 tons of copper ore to the Grand Forks and Greenwood smelters.

Surprise No. 3.—Situated near the City of Phoenix and is under lease to Joseph Cunningham *et al.* A shaft has been sunk 50 feet. Ten tons of ore has been shipped to the Grand Forks smelter; the ore carries silver and copper values.

Camp McKinney.

Fifty-five mineral claims were staked in Camp McKinney during the year and six were leased under the "Taxation Act, 1916." Twenty-nine of these claims were transferred to the Consolidated Mining and Smelting Company of Canada, Limited.

Office Statistics—Greenwood Mining Division.

Locations (quartz)	108
Rerecords (placer)	4
Certificates of work	137
Free miners' certificates	161
Free miners' certificates (special)	3
Bills of sale	42
Abandonment	1
Agreement	1
Options	2
Miscellaneous	1
Filings	17

GRAND FORKS MINING DIVISION.

REPORT BY S. R. ALMOND, GOLD COMMISSIONER.

I have the honour to submit the annual report on mining in the Grand Forks Mining Division for the year 1917.

In presenting this report, I would like to point out that, although there was more or less inquiry after mining property in the district, very little new work was commenced; some properties were bonded in the Burnt Basin camp and one or two on Castle mountain, near Cascade. The announcement that the *Little Bertha* and the *Pathfinder*, both situated on Granby river, near Brown's camp, are to start work again has been made; a new company having been formed for that purpose.

The *Union* mine, in Franklin camp, on Burrell creek, through the summer shipped 751 dry tons of ore, which averaged $31.80 a ton; during the same period 150 feet of drifts and crosscuts was made and 40 feet of incline shaft on the lead. The mine has closed down for the winter on account of the difficulty of hauling the ore in the winter-time to the rail-head, which latter is twenty miles from the scene of operations.

The *Emma* mine, at Denoro, in Summit camp, worked by the Consolidated Mining and Smelting Company of Canada, shipped 33,976 tons of ore to the company's smelter at Trail. The men employed on the mine numbered fifty-one, thirty-six of these being employed underground and the balance on the surface. There was little construction-work done on the mine, outside the new school-house. Development-work done during the year 1917 consisted of 1,302 feet of drifting and crosscutting and 573 feet of raising. The main shaft was sunk 34 feet and 3,056 feet of diamond-drilling was done on the property.

The Granby smelter at Grand Forks and the Granby mines at Phoenix were both handicapped by the strikes among the coal-miners in the Crowsnest coalfield; to illustrate this and to better describe the work done at the smelter and the mines, I take the liberty of introducing the reports of the two superintendents, as contained in the report for the year ended June 30th, 1917, of the Granby Consolidated Mining, Smelting, and Power Company, Limited.

Report of W. A. Bishop, superintendent of Grand Forks smelter:—

"The following report covers the local smelting operations for the year ended June 30th, 1917:—

"There were operated in the blast-furnace department the equivalent of 5.30 furnaces for the ten months' period, smelting—

Granby ore	673,742 tons.
Foreign ore	11,308 "
Anyox matte	40,139 "
Converter slag and matte	33,414 "
Flue-dust	2,988 "

"The average percentage of coke used per ton of ore was 13.55 per cent., and the smelting cost in this department was $1.564, as against $1.187 for 1915 and $1.237 for 1916.

"Detailed costs for year ended June 30th, 1917—

	Per Ton.
Smelter expense	$0.033
Sampling and assaying	.058
Shops	.009
Briquette	.005
Furnaces	.181
Slag	.056
Charge	.067
Coke	.987
Converting	.112
Workmen's compensation	.007
Anyox matte	.146
	$1.661

"This department produced 9,038,010 lb. of copper from Phoenix ores, 389,301 lb. of copper from foreign ores, and 8,122,142 lb. of copper from Anyox matte, being a total of 17,549,453 lb. The above copper was obtained from 29,200 tons of 30-per-cent. matte. Total smelting and converting costs for the year were $1.661 and loss of copper in slags 4.2 lb.

"A coke shortage caused by disturbed conditions at the coke-ovens seriously hampered operations during August and December, 1916, and January, February, March, and April, 1917. This finally culminated in a complete shut-down of the plant in May and June owing to an entire lack of supply.

"There has been no new construction during the year. Mention is made with pleasure of the continuous keen interest in the company's welfare as shown by all members of the organization."

Note by the Provincial Mineralogist.—The report of C. M. Campbell, superintendent of Phoenix mines, is quoted by the Resident Engineer (*see* page 201), and it is therefore unnecessary to reprint it here.

Office Statistics—Grand Forks Mining Division.

Free miners' certificates	130
Locations	86
Certificates of work	122
Filings	31
Certificates of improvements	4
Crown grants	1
Transfers and bonds	23
Leases of reverted Crown-granted mineral claims	2

OSOYOOS MINING DIVISION.

Report by J. R. Brown, Gold Commissioner, Fairview, B.C.

I have the honour to submit the annual report on mining operations in the Osoyoos Mining Division for the year 1917.

In the district as a whole very little increased production of ore has been accomplished, but considerable inquiries for possible mining propositions have been made.

At Camp Hedley the Hedley Gold Mining Company has been steadily at work, and with about the same results as formerly.

The *Dividend* and *Gold Dust* groups of claims on Kruger mountain have not shipped any ore during this year.

The *Horn Silver* mine, near Cawston, Similkameen, has shipped about 320 tons of ore at a gross value of $39 a ton.

The *Dolphin* group, near Olalla, has shipped about 80 tons at a gross value of $35 a ton.

The Stewart-Calvert Company, of Seattle, working the *Spotted Lake* properties, has taken out more sulphate of magnesia than in the year 1916; all this goes into the United States and is sold there.

The West Kootenay Power and Light Company is contemplating running a power-line from Trail to Copper mountain and passing through Camp Fairview. In consequence the company located a considerable number of mineral claims and leased several Crown-granted claims that had been forfeited to the Crown. These were taken up with a view to diamond-drilling, and no doubt, in the spring, some activity may be looked for.

Office Statistics—Osoyoos Mining Division.

Free miners' certificates	65
Claims recorded	132
Certificates of work	93
Conveyances	22
Leases of Crown-granted claims	12
Total mining receipts	$3,010.06

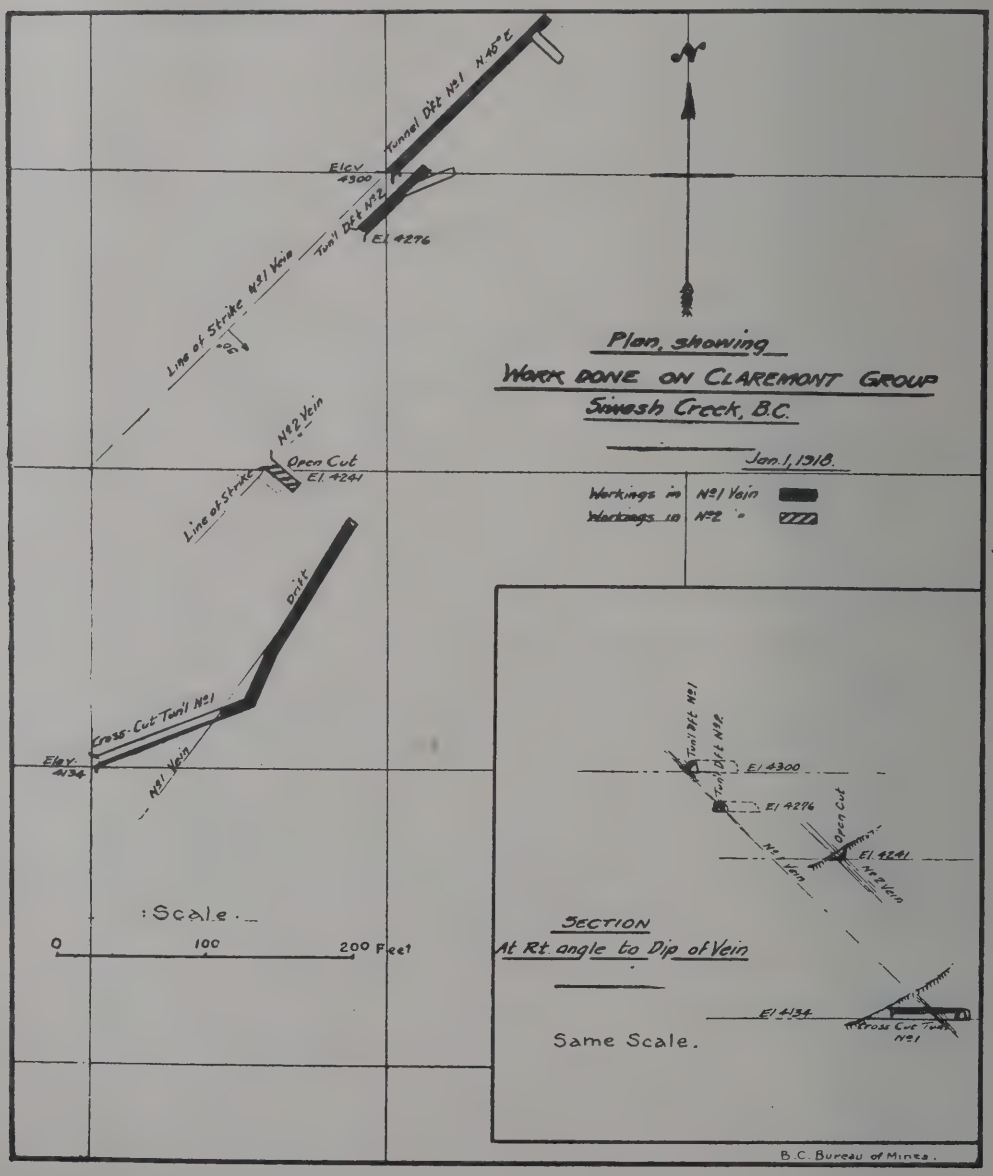
SIMILKAMEEN MINING DIVISION.

REPORT BY HUGH HUNTER, GOLD COMMISSIONER.

I have the honour to forward the annual mining report on the Similkameen Mining Division for the year 1917.

On the Tulameen river a number of men have been placer-mining in a desultory manner, and in most cases good wages have been obtained, the price of platinum having nearly doubled since last year. The Efanjay Syndicate is about to transfer its leases to a new company of Seattle, they not having sufficient funds to carry on the work. Mr. Schubert, of Tulameen, was unable to do much work on his claims, as the water gave out early in the season; he reports a clean-up of 3 oz. of platinum and 3 oz. of gold.

On Copper mountain the Canada Copper Corporation, Limited, is developing its property; a new tunnel is being driven to tap the lower ore-body. A site for the mill was purchased, which



is about four miles south of Princeton, and the proposed branch railway as at present surveyed goes through the property. Experiments were made at the cement plant on nodulizing concentrates, coal-dust being used instead of oil, and these experiments are reported a success. The company has entered into a contract with the West Kootenay Power and Light Company, pursuant to which it will extend its line from Greenwood so as to supply the necessary power for the operation of the properties on Copper mountain.

The Princeton Coal and Land Company mined 52,000 tons of coal during the year 1917.

Work has been resumed on the properties of the Columbia Coal and Coke Company at Coalmont by a Vancouver syndicate under management of Alexander Sharpe, and preparations made for shipping coal on large scale.

The yield of platinum for 1917 was approximately 57 oz. at $70 an oz.

The following report has been received on the *Claremont* group from the owners, the Claremont Syndicate:—

"All the work during 1917 was concentrated on the crosscut tunnel mentioned in last year's report, and a drift following the course of a vein intersected by this crosscut. This vein, we believe, is the same one followed by tunnel drifts Nos. 1 and 2. Wooden rails and ties hewn out of timber on the property were laid in the tunnel and drift. The rails were shod with strap-iron, and a small car is now used to transport material from the face of the drift. Both the car and the iron were packed in to the claims on horses at considerable expense. The total amount of work done in 1917 was about 250 feet of combined crosscutting and drifting. A blacksmith-shop and powder-magazine were built at the portal of the crosscut tunnel.

"As shown in the accompanying sketch, a vertical depth of 166 feet below the outcrop of vein No. 1 is attained at the intersection of this vein in the crosscut. This will give a very satisfactory section of stoping-ground if values corresponding to those at the surface are encountered on this level. Owing to winter conditions it is difficult to get to the claims, so at this writing it is impossible to state results and values obtained during the last three months, but work has been carried on steadily."

Office Statistics—Similkameen Mining Division.

Free miners' certificates	196
Special	1
Location records	205
Certificates of work	286
Bills of sale (mineral claims)	39
Records of placer claims	12
Leases (placer claims)	3
Bill of sale (placer)	1
Powers of attorney	7
Certificates of improvements	4

CENTRAL DISTRICT (No. 3).

REPORT BY R. W. THOMSON, RESIDENT ENGINEER.

This district, with headquarters at Kamloops, includes the following Mining Divisions: Clinton, Lillooet, Kamloops, Ashcroft, Yale, Nicola, and Vernon.

LILLOOET MINING DIVISION.

Copper mountain lies approximately twenty-five miles almost due west from the junction of Gun creek with Bridge river. It is reached by taking the Bridge River wagon-road, which starts from the north shore of Seton lake at Mission, for a distance of thirty-five miles to the junction of Gun creek and Bridge river. From this point an old trail which has been used for many years for the purpose of taking hunting-parties into the Interior winds over two mountain-summits of approximately 6,700 and 7,300 feet altitude, again connecting with Gun creek (after traversing a distance of thirty miles) at a point about twenty miles from its mouth. Crossing to the south side of the creek and following it for a distance of four miles, then one mile up the south slope from an elevation of approximately 5,000 feet at Gun creek, to about 6,800 feet, which is the altitude of the floor of a sub-valley at the base of Copper mountain.

This elevated valley, which has probably been the bed of a mountain glacier, ranges in width from one-half to three-quarters of a mile and is enclosed on three sides—the east, south, and west—by mountains; Copper mountain being on the east side. On the north it slopes at a steep gradient to a small lake, an expansion of Gun creek, the altitude of which is approximately 5,200 feet. Three small lakes or ponds at the head of the valley form the source of a mountain brook which would provide an ample supply of water for a camp of considerable magnitude.

Opposite page 80 of the Summary Report of the Geological Survey, 1915, is a geological diagram of the Bridge River area, accompanying a report on the area by Dr. C. W. Drysdale. Although the boundary of the ground covered by the report and map area does not reach within twenty miles of Copper mountain, the general physical features, flora, etc., as described in the report may be applied to the country in its vicinity.

Copper mountain is one of several peaks of a mountain range which runs in a general north-and-south direction, and is not more than approximately 1,200 feet above the level of the valley at its base; its peak altitude being about 8,000 feet. Geologically it probably belongs to and is contemporaneous with the Bendor Mountain formation, described by Dr. Drysdale, in the report referred to above, as Bendor granodiorite of the Coast Range batholith, Upper Jurassic period. A small cupola rising from the valley-floor at the foot of Copper mountain shows in miniature what the structure of the mountain is in a larger way. At one time quite a number of these small cupolas had apparently been scattered over the valley at the base of the mountain, but erosion and weathering has worn them away, so that there is little left now but the ragged bases and detritus. The orbicular structure of the granodiorite is a feature of Copper mountain, but on a much larger scale, the curved cleavage faces of the orbicular structure in some cases having a radius of curvature of 5 to 6 feet. There are several large dykes cutting through the country, but there was no time for a detailed investigation of these.

From the photograph of Copper mountain it will be seen that the foot is hidden by the talus broken down from the higher part of the mountain. Above the upper fringe of this talus, which has an average altitude of about 7,200 feet, the rock in-place is exposed along a horizontal distance of several hundred feet. At several areas along and above this line are fractured zones impregnated with the carbonates and sulphides of copper; similar occurrences could also be seen farther up towards the summit. No defined line of fracture or vein walls could be distinguished. A sample taken across 6 feet of one of these mineralized areas gave, on assay: Gold, trace; silver, trace; copper, 0.5 per cent.

The *Copper Mountain* group comprises twelve mineral claims covering considerable ground outside of and including Copper mountain. J. M. MacKinnon, of Vancouver, at present has an option on the group.

There are other mineral occurrences in the vicinity of Copper mountain; cinnabar has been found and also copper-glance (chalcocite). Over forty mineral claims have been staked in the immediate district. There was no opportunity, however, to investigate these.

A trail is being constructed up Gun Creek valley for the purpose of avoiding the long detour over the two mountain-range summits referred to in the first part of these notes.

KAMLOOPS MINING DIVISION.

Windpass Group.

This group consists of three mineral claims recorded as follows: *Windpass No. 1:* Owner, Olie Johnson; located June 7th, 1916. *Windpass No. 2:* Owner, T. H. Campbell; located June 7th, 1916. *Windpass No. 3:* Owner, Oscar Horgen; located June 7th, 1916. This group lies easterly from Dunn lake, a distance of approximately two miles on the crown of a small mountain, the altitude of which is by aneroid 5,150 feet.

The claims are reached by starting northerly from Chu Chua, a station on the Canadian Northern Pacific Railway, and taking the main highway on the east side of the North Thompson river for a distance of five miles, then a trail for a distance of three miles, the trail rising from an approximate elevation of 1,500 feet at the wagon-road to 5,150 at the mine-workings. The country-rock in the vicinity of the claims appears to be of a basaltic nature and probably belongs to the Kamloops volcanic group of the Lower Miocene period.

Although the claims are at an altitude of 5,000 feet, the rock generally is covered with considerable surface drift, on which is growing scattered patches of timber varying from scrub to fir a foot in diameter. There is a good two-roomed log house on the property.

Near the centre of *Windpass No. 1* is an outcropping of quartz containing magnetite, the sulphides of copper, and carrying some bismuth. This vein strikes in an east-west (mag.) direction and dips slightly to the north; it has been stripped for a distance of approximately 200 feet and two shipments of ore taken from along the surface, the smelter returns from which are given below. The average width of the vein is about 18 inches. It appears to be of primary origin.

Running north and south (mag.) across the claims, *Windpass No. 1* and *Windpass No. 3*, and continuing southerly through the adjoining claims, is a large dyke apparently of an aplitic nature. This cuts across the *Windpass No. 1* about 100 feet, to the west of the workings on the quartz vein, the intersection of which with the dyke has not yet been demonstrated. The easterly contact of the dyke has been traced for fully 3,000 feet; the westerly side has not yet been exposed, but the occurrence is of some considerable width.

The following are the smelter returns from the shipments referred to above:—

The Consolidated Mining and Smelting Co. of Canada, Ltd.

December 16th, 1916—

Dry weight of ore, 63,042 lb.

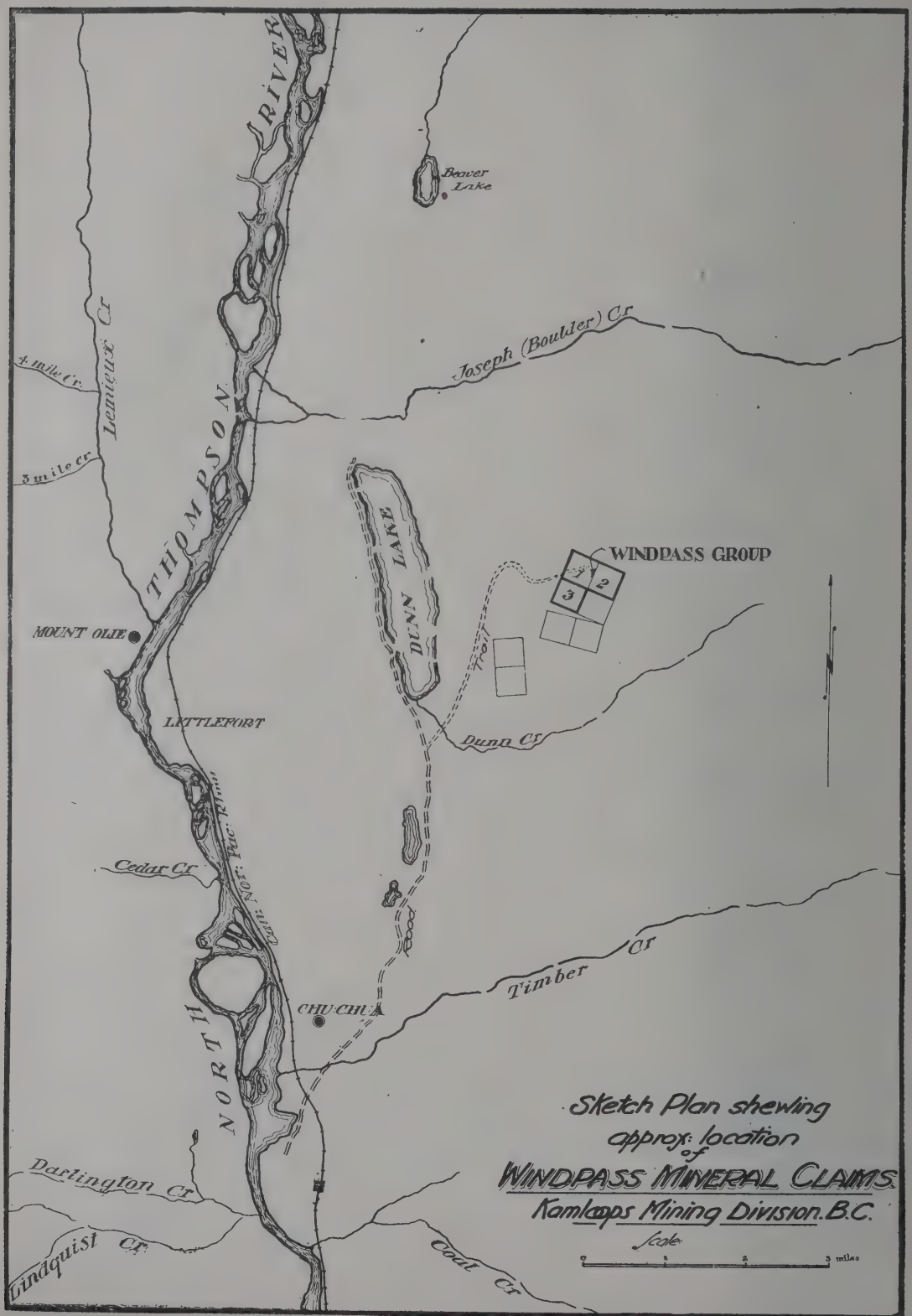
Assay values—

Gold, 2.40 oz. a ton.

Silver, 0.90 oz. a ton.

Copper, 1.46 per cent.

Gross value		$1,648 62
Treatment at $4	$126 08	
Freight from Kamloops	147 38	
Freight to Kamloops from Chu Chua	78 00	
Transfer costs	16 00	
		267 46
		$1,381 16


THOMPSON RIVER
Beaver Lake
Joseph (Boulder) Cr
4 mile Cr
Lemieux Cr
3 mile Cr
DUNN LAKE
WINDPASS GROUP
1
2
3
MOUNT OLIE
LYTTLETFORT
Trail
Dunn Cr
Cedar Cr
Timber Cr
CHU-CHUA
NORTH
Darlington Cr
Lindquist Cr
Coal Cr
Sketch Plan shewing
approx: location
of
WINDPASS MINERAL CLAIMS
Kamloops Mining Division. B.C.
Scale
0 1 2 3 miles

March 5th, 1917—

Dry weight of ore, 58,392 lb.

Assay values—

Gold, 2.14 oz. a ton.

Silver, 1.40 oz. a ton.

Copper, 0.58 per cent.

Gross value		$1,244 68
Treatment at $4	$116 78	
Freight from Chu Chua	224 04	
		340 80
		$ 900 88

The cost of transportation from the mine to the wagon-road by pack-horses and then by wagon to Chu Chua was $17 a ton. The mine was visited again on November 21st, 1917, when it was found that a shaft had been sunk to a depth of 30 feet from the surface, showing the vein dipping to the north at about 45 degrees. There was some water in the shaft, but it was stated that the vein showed a width of 2 feet at the bottom, with mineralization as good as that contained in the shipment. Appearances indicated that this statement could be accepted as reliable.

There are several other claims in the neighbourhood on which prospecting-work has been done, but no developments of particular interest have occurred.

Homestake.

The *Homestake* silver-mine is situated on the northern slope of Pass Creek valley, at a distance of approximately three miles westerly from Adams lake and eighteen miles from Louis Creek Station, on the Canadian Northern Pacific Railway, which is on the east bank of the North Thompson river, thirty-six miles north from Kamloops. A wagon-road runs from Louis Creek Station to Adams lake, passing within about three-quarters of a mile by trail of the workings on the property. The approximate elevation of the tunnel is 2,600 feet, which is about 700 feet above the level of the wagon-road where it passes through the lower claims of the property.

Holdings.—The mine holdings consist of four Crown-granted mineral claims, making a total, according to survey, of 191.44 acres. There are no buildings, those that were erected some years ago having been destroyed by fire. In the immediate vicinity of the workings there is very little timber, but on the lower claims of the property there is sufficient for mining requirements for some years to come.

Geology.—In the Annual Report of the Geological Survey of Canada, 1894, page 22A, Mr. McEvoy, in his report on the *Homestake* mine at that time, says: "The country-rock is a talcose schist." On page 349B of the same publication, Dr. Ferrier describes more technically a specimen from two miles up Louis creek, north side, as a "feldspathic actinolite schist." These two are probably contemporaneous in origin and development.

The Adams lake formation in which the *Homestake* mine is situated is regarded by Dawson as of Cambrian age. On page 24 of No. 59, Geological Series (Memoir 68), Geological Survey of Canada, 1915, Daly regards this formation as of Pre-Beltian (Pre-Cambrian) age, and farther on, in discussing the origin of these schists, states that there is not sufficient evidence to hand to warrant a definite statement as to whether they are a metamorphosed Pre-Cambrian sediment or an altered igneous rock, but that there is no doubt about the schistosity having been produced by the tremendous pressure of the at one time overlying formations, accompanied by high temperatures and probable permeation by aqueous gases. In the immediate vicinity of the *Homestake* mine the schist is extremely fissile in structure, and therefore will make very insecure walls for mining operations. The valuable metal is silver, which appears to be associated with galena and copper sulphide in a baryte gangue.

Workings.—The workings so far have been confined to the *Homestake* claim, on which the principal showing occurs. These consist of a tunnel 190 feet in length, running about due north (mag.) and cutting the formation at about right angles to the strike. The dip of the formation and the dip of the vein appear to coincide very closely. At the end of the tunnel the vein has been crosscut, showing it 8 feet in thickness on the west side of the tunnel. A drift has been run to the west on the foot-wall for a distance of 15 feet, where a fault was encountered cutting off the vein. On the east side of the tunnel a drift was started on the foot-wall of the vein in

a north-easterly direction, which at a distance of 32 feet from the tunnel has cut through to the hanging-wall, indicating considerable distortion in the ore-body. From the last-mentioned drift and at a distance of about 20 feet from the tunnel a raise has been put through to the surface, a distance of 130 feet on the foot-wall. Forty feet up this raise a drift has been run to the west, which at 18 feet encounters a fault cutting off the vein at this level. From this latter drift a crosscut raise has been put through to the hanging-wall, showing the vein at this point to be 16 feet in thickness. Underlying the vein throughout there appears to be an occurrence of quartz varying in thickness from a few inches to several feet.

There is a baryte bluff outcropping about 400 feet westerly from and at a level of approximately 300 feet above the main tunnel. Between these two there is a fault-zone which has a dip to the east, and it is the opinion of the writer that these two occurrences were originally in one body, and that their present relative positions are the result of normal displacement along the fault-zone referred to. This opinion, which is founded on observations taken underground and casually observed surface indications, may, however, on development-work being proceeded with prove erroneous. In this baryte bluff a crosscut tunnel has been driven a distance of 10 feet, giving an exposure in the face of 3 feet above the foot-wall.

Ore in Sight.—There is such a very small amount of ore which can be classified as "blocked out" that I shall make only a rough estimate of what might be classified as "ore in sight."

Taking the ore from the lowest level exposed, up to the drift west from the main raise, there is an area approximately of 53 feet in width by 70 feet on the dip, or 3,710 square feet. Assuming the average thickness as 12 feet (the mean between the thickness on west side of tunnel and the thickness in the crosscut raise) gives a cubic content of 12 feet by 3,710 square feet, or 44,520 cubic feet.

From the holing of the main raise at the surface the outcrop runs north-east a distance of 80 feet, where it dips under Falls creek, and at this point is 9 feet in thickness. Westward from the raise it outcrops for a distance of 100 feet, at which point it is 5 feet in thickness. Sketching this area out on the plan down to the upper boundary of the first-considered area, it will be found to assume the shape of a parallelogram having two parallel sides of 100 feet in length, with a perpendicular distance between of 70 feet measured along the dip as shown in the main raise, or an area of 100 x 70 feet, or 7,000 square feet.

Taking the average thickness of this area as the mean of 16, 9, and 5 or 10 feet, we get for its cubic contents 7,000 square feet by 10 feet, or 70,000 cubic feet. This gives as the total cubic contents of "ore in sight" in the vicinity of the workings 44,520 cubic feet plus 70,000 cubic feet, or 114,520, say 115,000 cubic feet.

This estimate does not take into consideration the ore extracted from the drifts and raise, the continuation in depth which has not been taken into account being assumed to compensate for this. G. S. Eldridge, of Vancouver, who made the assays for this report, determined the specific gravity of the ore from an average of eleven samples, and found it to be 4.14 or 7.73 cubic feet of ore a ton of 2,000 lb. On this basis the "ore in sight" from the above method of calculation amounts to 14,877 tons.

Values.—The results of sampling are as follows:—

Across 8 feet of vein at end of tunnel: Silver, 7.78 oz. a ton; copper, 0.22 per cent.; gold, negligible.

Across 16 feet in crosscut raise: Silver, 11.18 oz. a ton; copper, 0.25 per cent.; gold, 0.03 oz. a ton.

Across 9 feet face of outcrop at creek: Silver, 8.96 oz. a ton; copper, 0.15 per cent.; gold, 0.02 oz. a ton.

Referring to the sketch-plan, it will be seen that these sections lie roughly in a line across the centre of the ore-body estimated as "ore in sight." Taking the values found as representing the average at the respective sections and weighting them in proportion to the thickness of the vein at these sections, the general average will be found to be: Silver, 9.75 oz. a ton; copper, 0.22 per cent.; gold, 0.02 oz. a ton.

Treatment.—On account of the high specific gravity of the gangue, concentration by the ordinary methods, of jigs or tables, does not give satisfactory results, neither is the ore amenable commercially to the cyanide treatment. This leaves the "flotation process" as the only one from which to expect favourable economic results.

G. S. Eldridge, of Vancouver, as the result of some experiments on this ore, makes the following statement: "In regard to the question of flotation, I consider that ore going 10 oz. to the ton in silver could be concentrated to 100 oz. a ton; that is, a ratio of 10 to 1 would be obtained, and that a saving of at least 92 per cent., and probably up to 95 per cent., of the values would be recovered by means of a modified form of the flotation process, which would cost possibly 25 cents a ton more than the ordinary Minerals Separation method. It is possible that the Callow method might work on this ore. I have not tried it, but I could not get better than 65 per cent. with the Minerals Separation process on this particular ore."

Additional General Information.—Baryte bluff outcropping as shown on plan approximately 30 feet in thickness and 80 feet in length, 10 feet crosscut tunnel on foot-wall. Sample from face of tunnel across 3 feet from foot-wall up gave: Silver, 1.68 oz. a ton; copper, 0.20 per cent.; gold, trace.

Sample from surface across 6 feet running from 3 feet above foot-wall to 9 feet above foot-wall gave: Silver, 1.18 oz. a ton; copper, 0.10 per cent.; gold, trace.

Sample from 18 inches baryte outcrop in faulted zone 175 feet west from main tunnel gave: Silver, 11.66 oz. a ton; copper, 0.07 per cent.; gold, trace.

Sample of 1 foot of talcose parting between baryte vein and underlying quartz near creek gave: Silver, 3.72 oz. a ton; copper, 0.12 per cent.; gold, 0.02 oz. a ton.

Sample across 2 feet of quartz, which is several feet in thickness at this point, underlying last sample gave: Silver, 1.02 oz. a ton; copper, 0.19 per cent.; gold, trace.

During the years 1893-94 there was shipped from the workings 20 tons of high-grade ore, from which the smelter at Everett gave the returns as follows: Silver, 79.20 oz. a ton; gold, 0.18 oz. a ton; lead, 4 per cent. (approximate).

There is a streak of high-grade ore showing in the main raise running up to about 8 inches in thickness. This was not taken in with the general average as it did not show in the sections sampled.

There is a small creek running through the claims which has a fall within their limits of over 1,000 feet. This is large enough to supply all mining requirements and probably could be utilized to supply a certain amount of power.

In case of resumption of operations on this property, the logical procedure would be to continue development and at the same time operate a small experimental concentration plant of the nature suggested in Mr. Eldridge's statement, previously quoted, until such time as the quantity of ore developed and the demonstrated efficiency of the method of concentration would warrant the installation of works on a scale commensurate with these results.

ASHCROFT MINING DIVISION.

Snowstorm Group.

In the Annual Report of the Minister of Mines, 1915, there is a full and comprehensive report on the *Snowstorm* group of mineral claims by W. M. Brewer, M.E.; this also includes a summary of a report made by the Provincial Mineralogist in 1907. Mr. Brewer in his report describes fully the geology, ore occurrences, work accomplished at the time, and also gives plans of the workings and a map showing the location of the claims in relation to the railroads, wagon-roads, and physical features of the country generally. On page 87 of the Summary Report of the Geological Survey of Canada, 1915, there is a description of the *Snowstorm* group by the late Dr. C. W. Drysdale, followed by a statement on the geology and theory of mineralization of this neighbourhood.

At the time of the above-mentioned reports there had been shipped from the *Snowstorm* main workings slightly over 90 tons of ore, which from smelter returns averaged 30.06 per cent. copper, with small values in gold and silver. In this is included ½ ton of high-grade ore from a 3½- x 7-foot shaft situated about 275 feet in a S. 22° W. (mag.) direction from the main workings and apparently in the same line of strike, and which at the time of Mr. Brewer's visit was 15 feet deep. In June, 1916, this shaft had been sunk to a depth of 58 feet and a shipment of 40.5 tons of ore obtained from it and sent to the Trail smelter, the returns from which, as given by Stuart Henderson, were: Gold, *nil;* silver, 4.52 oz. a ton; copper, 23.71 per cent. At the time of the writer's visit this shaft was full of water to within 20 feet of the surface.

For the purposes of the following notes the *Snowstorm*, the *Channel* group, the *Guernsey-Jersey*, and the *Great Britain* group shall be considered as one.

At the time of the writer's visit in October, 1917, no work had been done on these claims for over a year, and the main workings on the *Snowstorm* were inaccessible, excepting the main crosscut or working tunnel. Samples were obtained from this where it crosscuts the vein and extended into the foot-wall rock, the assays from which gave:—Across 4 feet of main fissure: Gold, trace; silver, 1.30 oz. a ton; copper, 6.40 per cent. Next 5 feet of foot-wall rock (basaltic): Gold, trace; silver, trace; copper, 1.20 per cent.

The open-cuts mentioned in Mr. Brewer's report were caved to a considerable extent and the shafts inaccessible. However, a casual reconnaissance of the claims was made under the guidance of Stuart Henderson and samples taken where mineralized outcrops were exposed.

On the *Jersey* (old *Handball*) an open-cut showing mineralized disintegrated granite in a fissure striking approximately north-east and south-west (mag.) was sampled, and gave across 3 feet: Gold, trace; silver, trace; copper, 2.10 per cent. A similar showing 350 feet southerly from above and apparently in the same line of strike occurs.

Continuing in a southerly direction on to the *Guernsey* (old *Last Chance*, also *Football*) claim for a distance of 230 feet, an old shaft said to be 88 feet in depth is encountered. The vein at the bottom is said to be 3 feet 6 inches in width, and to assay: Gold, 20 cents a ton; silver, 1 oz. a ton; copper, 6.50 per cent. A grab sample taken from the dump, which did not appear to have been sorted, gave: Gold, trace; silver, 1.50 oz. a ton; copper, 5.50 per cent. Following along the same line of strike for a distance of 500 feet more, a small shaft 20 feet deep is met with, showing a fissure 4 feet in width, well mineralized, but as the shaft was inaccessible and the dump not defined no sample was taken.

Summing up the above, it would appear that there is extending through the *Jersey-Guernsey* claims a fissure or fissure-zone in the granitic country-rock at least 1,100 feet in length, well mineralized and probably of some considerable depth.

On the Channel claim is an old open-cut showing indications of a 4-foot fissure with strike approximately parallel to that running through the Jersey-Guernsey claims, and well mineralized with the carbonates of copper.

On the *Shetland* claim is an open-cut 150 feet in length, striking east and west (mag.), showing mineralization similar to that on the *Channel* claim.

On the *England* claim, in a narrow mineralized fissure in the granitic country-rock, there is a small outcropping of iron pyrites which gave on assay: Gold, trace; silver, trace; copper, 9.1 per cent.

On the *Iona* claim, on the crest of a rounded knoll, is an occurrence of a quartz-porphyry nature, stained with the carbonates of copper. This outcrops through the surface drift at different points over an area of at least 60 feet in diameter. A sample taken across 4 feet of surface exposure gave: Gold, trace; silver, trace; copper, 1.30 per cent. Stuart Henderson in his report states that an average sample taken over the different exposures gave: Gold, 40 cents a ton; silver, 3 oz. a ton; copper, 3.90 per cent.

TRANSVAAL, HIGHLAND, CONSOLIDATED, AND KEYSTONE GROUPS.

These groups of mineral claims are at an elevation of approximately 5,500 feet. Again referring to the map accompanying Mr. Brewer's report on this district as published in the 1915 Annual Report, it will be seen that these groups of claims lie about five miles in a north-westerly direction from the *Snowstorm* group.

The names of some of the claims have been changed. The following are the alterations:—

Keystone Group.—Douglas Pine, altered to *Keystone; Waverly*, altered to *Calumet; St. Boniface*, altered to *Hercules; Snowdon*, altered to *Granite.*

Consolidated Group.—Ajax, altered to *Hecla; Leptento*, altered to *Copper Cliff; Copper Queen*, altered to *Consolidated.*

The position of the *Keystone* group as shown on the sketch-plan is incorrect, it having been moved over so as to adjoin the *Transvaal* and *Consolidated* groups, the intervening claims having been allowed to lapse; the workings as shown on the *Keystone* claim being now on the *Calumet.*

Transvaal Group. This group is in the same condition, as far as the main workings are concerned, as at the time of the Provincial Mineralogist's report as given in the 1907 Report. A grab sample taken by the writer from the dump at the main shaft on *Imperial* claim gave on assay: Gold, trace; silver, trace; copper, 1 per cent. During the past two years there has been considerable trenching done on the *Transvaal* group, the result of which has been the exposing of two parallel fissures on the *Chamberlain* claim and

Copper Mountain, Gun Creek, Lillooet M.D.

two on the *Transvaal* claim. The two on the *Chamberlain* have been traced for a distance of approximately 2,000 feet, running south into the *Ladysmith* claim and north into the *Imperial*. The vein-filling is similar to that described by the Provincial Mineralogist in the report above referred, being a black trap-rock showing carbonates of copper and low grade in value. The fissures run from 3 to 7 feet in width where exposed, and are approximately 100 feet apart. The country-rock is granitic.

Of the two on the *Transvaal* claim, No. 1 has been traced for a distance of 400 feet, striking in a north-south direction. From an open cut a sample was taken across 4 feet, neither wall being exposed. Assay results were: Gold, trace; silver, trace; copper, 1.30 per cent. No. 2 runs parallel at a distance of 100 feet, and has been traced for 700 feet. Both are in granitic country-rock and have the same appearance in regard to mineralization as those on the *Chamberlain* claim.

Highland Group. There have been no developments on this group since it was examined by Mr. Brewer, the report on which appears in the Annual Report for 1915, excepting that the shaft on the *Highland No. 2* mineral claim has been continued to a depth of 75 feet and a crosscut at the 55-foot level put in for a distance of 23 feet. This crosscut was run for the purpose of tapping a vein appearing on the surface, but had not reached it at the time work was stopped.

Consolidated Group. On the *Copper Cliff* claim a fissure has been exposed striking in a north-west (mag.) direction and extending in to the *Pretoria* claim, said to have been traced for a distance of 3,000 feet. Mineralization, dark-coloured trap-rock carrying carbonates. Country-rock granitic. A sample taken across 4 feet of vein-matter exposed in an open-cut gave on assay: Gold, trace; silver, trace; copper, 1 per cent.

On the *Hecla* claim are several open-cuts showing strong copper mineralization.

Keystone Group. On the *Calumet* claim of this group there is a rather remarkable showing of copper carbonates. The contact between the granite and overlying Kamloops volcanics runs roughly east and west (mag.) through this claim. The granite has been subjected to a very considerable degree of contact metamorphism and the effect of metasomatic replacement influences. It now has the appearance of a very minutely fissured rock uniformly impregnated with the carbonates of copper to such an extent as to conceal its real structure.

In this altered granite, at a short distance from the contact and roughly parallel to it, a tunnel has been driven for a distance of 78 feet. The first 13 feet from the portal is in loose surface drift. The remaining 65 feet is in the green-coloured altered granite. The mineralization appears to be uniform throughout the tunnel and no alteration is evident in the face. A sample was taken along 15 feet of the tunnel, which was fairly representative of the whole, and gave on assay: Gold, trace; silver, trace; copper, 1.60 per cent. The face of the tunnel is approximately 40 feet vertically below the surface. Some 140 feet to the south of the above is a parallel tunnel 25 feet in rock, to which the same description applies. This was not sampled.

Glossie Group. This group was visited by the writer in company with J. W. Burr, the owner, in October, 1917. No work has been done on the property for some time, and the shafts were inaccessible. W. M. Brewer's report on this property, given in the 1915 Annual Report, is from more reliable and fuller data than could be obtained at the time of the writer's visit.

Before closing these notes on a few of the properties visited in the Highland valley, it is fitting to add an extract from the report of the late Dr. C. W. Drysdale, as given on page 91 of the Summary Report of the Geological Survey of Canada, 1915, which is as follows: "The work that has already been done in Highland valley demonstrates the presence of copper veins within comparatively easy reach of the main line of the Canadian Pacific Railway. The veins occur in an area covering at least twenty square miles, are of high grade, although narrow, and are of deep-seated origin. With further careful prospecting and systematic development, it may be expected that sufficient quantity of copper ore will be blocked out to warrant the construction of a spur line to connect the Highland Valley camp with the Canadian Pacific Railway at Spatzum. Until such transportation facilities are afforded, it will be practically impossible to operate the mines successfully."

The above quotation refers to the country in which the *O.K.* mine of the Highland Valley Mining and Development Company is operating, as well as that covered by the preceding notes.

YALE MINING DIVISION.

Emigrant Group.

This group consists of six claims and one fraction situated on the South fork of Siwash creek, about seven miles from the town of Yale and five miles east from the Fraser river. In the sketch-plan attached it will be seen that they are tied on to the Roddick claim, which is the *Discovery* claim of the district and is Crown-granted.

In 1911 a geological reconnaissance of the Siwash Creek area was made by A. M. Bateman, of the Geological Survey. The following extracts are from his report:—

"The rocks underlying the area consist of a metamorphosed sedimentary series represented by slates, garnet-schists, mica-schists, siliceous schists, and thin bands of crystalline limestone.

"This series is intruded by the Coast Range granitic batholith and its accompanying acid and basic dykes. A small remnant of volcanic tuff overlying the granitic rocks is exposed in one locality. Glacial deposits are found along the borders of the stream.

"The gold without exception is associated with porphyry dykes and occurs in the porphyry itself, or in quartz veins along or adjoining the contact of the porphyry with slate. The gold is thus seen to be genetically dependent on the dykes, and the great number and wide distribution of these dykes makes it a promising field for prospecting."

Mr. Bateman tentatively refers the Siwash Creek series to the lower Cache Creek formation of the Carboniferous period.

Placer-mining on Siwash creek has been carried on intermittently for more than fifty years. In 1902 the Mount Baker and Yale Mining Company erected a 10-stamp mill on the west side of the forks; this was operated for only a short time. In 1911 the Martel Mining Company was operating a 6-stamp mill on the *Ward* claims, erected between the Middle fork and the North fork. This was operated for a short time only.

Both of these companies were organized with the expectation of being able to operate in a commercially successful way on the mineralized gold-bearing porphyritic dykes described by Mr. Bateman in the previously quoted extract.

During the past two years the Fagan Bros. have been working steadily on the *Emigrant* group of claims. The country-rock in the vicinity of the workings is the slate or argillite of the Siwash Creek series, very fissile in structure and dipping at a high angle. Attention was first drawn to this particular vicinity by the finding of "float" carrying gold values on the top of the west slope of the South fork of Siwash creek. This was traced in a north-west and south-east direction, but on account of the considerable thickness of surface covering the outcrop could not be located.

Coming down the north slope of the stream a short distance on the *Gold Road* claim, a tunnel (No. 1) was started in a north-westerly direction, and at 72 feet intersected a quartz vein 14 inches in width at about 15 feet vertically below the surface; this is said to contain good gold values; at the time of the writer's visit it was inaccessible. Next a tunnel (No. 2) was started about 90 feet vertically below No. 1, running in a north-westerly direction, which at 410 feet struck the foot-wall of the vein, and also a rush of water which washed out the timbering at the portal of the tunnel and prevented further progress for the time being. No. 3 tunnel was then started from the same portal as No. 2, but at an angle to the west. At 430 feet the vein was struck, and as this had drained the water from No. 2, work was resumed on the latter. The horizontal distance along the strike between the No. 2 and No. 3 tunnel-faces is estimated to be 80 feet; aneroid reading at portal of tunnel 2,000 feet. Work was resumed on No. 2 tunnel; an upraise of 14 feet was put in a short distance back from the face, and from this a crosscut was run through the vein, which at this point was said to be in the neighbourhood of 20 feet wide. It appears to be dipping north-west at a rather low angle, not more than 25 degrees. The vein-matter is a white quartz intercalated with bands and stringers of slate.

At the time of the writer's visit to the mine, October 30th, the vein and walls in No. 2 tunnel had caved to such an extent that it was impossible to secure a satisfactory sampling. Learning from the owners that Glen L. Thompson, M.E., of Prince Rupert, had sampled the vein a short time previous, when it was more accessible, he decided to ask Mr. Thompson for his results, with permission to use the same; this was kindly granted. The following is from Mr. Thompson's letter:—

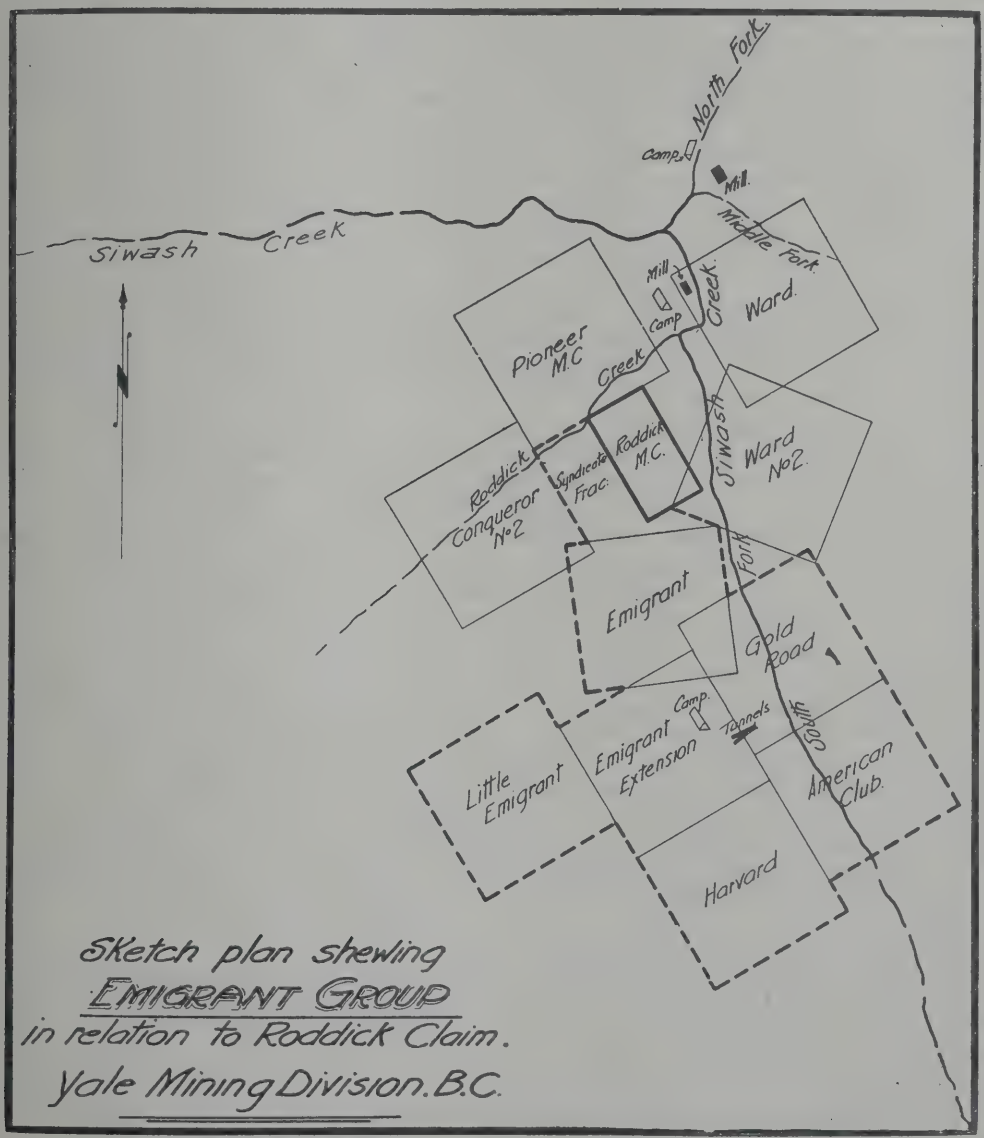
"My assays were taken across a face as exposed by the crosscut for a distance of about 12 feet from the foot-wall.

	Au, Oz.	Value.
12 feet south side of crosscut	0.48	$9 60
12 feet south side of crosscut	0.36	7 20
Section No. 3, 3 feet slate and quartz on foot-wall	0.19	3 80
Section No. 2, next 3 feet	0.08	1 60
Section No. 1, next 4 feet	0.12	2 40

"The above samples from the *Emigrant* mine, on the South fork of Siwash creek, Yale, B.C. Assay by C. S. Eldridge & Co., Vancouver, under date April 14th, 1917."

The above results would indicate that the values are on the hanging-wall side of the vein.

During the latter part of the year the owners were engaged in repairing the trail from the Fraser river up to the mine preparatory to getting in supplies, intending to erect during the winter a 3-stamp battery which had been secured. While this latter work was in progress the



storm which devastated the Fraser valley to such an extent early in January, 1918, destroyed the bridges up the trail, and the breaking of log-jams cleared the mill-construction away completely.

The latest news from the owners is that they are running a drift to connect the two tunnels along the hanging-wall of the vein, finding good values, and it is their intention to erect a 25-ton ball-mill on the property in the spring.

McIntyre Group. This group of mineral claims is owned by Murdock McIntyre, of Merritt, B.C., and comprises a block of ten claims, staked two in width by five in length, or a rectangular block approximately 3,000 feet in width by 7,500 feet in length; the longer axis running east and west (mag.). The easterly and higher end of the block, where the mineralized exposures are the better defined, is approximately two miles and a half in a northerly (mag.) direction from Canford, a station on the Spences Bridge branch of the Kettle Valley Railway. This part of the group has an elevation of 4,000 feet and is reached by a two-mile trail running from the Nicola Valley main highway.

Striking north-south (mag.) across the easterly end of the block of claims runs a limestone occurrence, outcroppings of which can be traced for some considerable distance; on account of surface drift, however, the contact on neither side could be traced, but it appears to dip slightly to the west. This limestone has been subjected to great torsional strain as well as high pressures, which have resulted in imparting to it a comb-line appearance along the outcrop and an asbestiform structure. On the west side of this limestone the country-rock generally appears to be of a diabasic nature, probably one of the volcanics of the Nicola formation.

In a line at right angles to the general strike of the limestone-outcropping, and running westerly from it over a distance of several hundred feet, a number of open-cuts have been made in the country-rock. In these open-cuts the rock has a fractured structure, but in none of them is there any evidence of a vein or indications of vein-walls. They are all fairly well mineralized with the carbonates and sulphides of copper. From one of these open-cuts near the contact with the limestone, but which did not appear to be more highly mineralized than any of the others, a sample was taken across a 5-foot face, which gave on assay: Gold, trace; copper, 2.50 per cent. At the lower end of the property and approximately 3,000 feet westerly from the open-cuts mentioned some surface trenching has been done, but nothing of particular interest exposed.

Donohoe Mines. Situated in Stump Lake vicinity. In the Annual Report (New Series) for 1887-88 of the Geological Survey of Canada, on page 69R, there is a report on the Stump Lake mines by Dr. G. M. Dawson, from which the following extracts are taken: "In the year 1887, 200 claims were recorded in the vicinity of Stump lake, and during the summer of 1888 I had the opportunity of examining a number of these, comprising all those upon which any considerable amount of work has yet been done. Some locations were originally taken up in this neighbourhood about six years ago, but prospecting-work appears first to have been undertaken in 1885. The principal developments are comprised within an area of about five miles in length, with a variable breadth, lying nearly north and south on the east side of the lake. The claims included in the property of the Nicola Mining Company and in the adjoining property of the Star Mining Company are those upon which the most extensive operations have been undertaken, confined, in the case of the first-named property, to development by means of several shafts and prospecting on the surface. In the case of the second, a small crushing and concentrating plant has also been established. Development and prospecting has also occurred to a considerable extent by the Mary Reynolds Company on the *Hepburn* group of claims, on the opposite side of the valley and farther south than those above mentioned, and from these, some of the richest ore, of which very satisfactory trial shipments have been made, has been obtained.

"The metalliferous veins which have been found within the limited district above defined are very numerous. They vary from about 10 inches to 5 or 6 feet in width, and some of them have been traced for a length of several hundred feet. Though it is probable, from the great number of veins which exist, that no single one will be found to be continuous for a very great distance, a large supply of ore is already assured. Most of the veins run with very considerable uniformity in a bearing a few degress west of true north, or from N. 10° W. to N. 30° W. (mag.). There are, however, a few which diverge widely from this direction, and two or three which run nearly

at right angles to it. The gangue is generally white quartz, and the principal metalliferous minerals present include iron and copper pyrites, galena, blende, and tetrahedrite. Assays made in the laboratory of the Survey run from 15 to 406.5 oz. of silver, with 0 to 6 oz. of gold a ton of 2,000 lb., according to the relative amounts of the various mineral constituents. The country-rock consists of altered volcanic materials of Palæozoic or Triassic age, and may be generally characterized as a diabase porphyrite, the most characteristic material in this place being a rock of green and green-grey colour with coarse porphyritic crystals of plagioclase and pyroxene."

In the Annual Report of the Minister of Mines, B.C., 1889, Mr. Hussey, the Gold Commissioner for the district, reports:—

"The *Mary Reynolds* claim, owned by John Hepburn & Company, has now three shafts—one 100 feet, one 75 feet, and one 35 feet—all on the same vein. Several drifts are also run from the 100-foot shaft a distance of 90 feet. From this claim 3,500 lb. of ore has been shipped to San Francisco, and the encouraging result of $168 per ton has been obtained. There are said to be $10,000 worth of ore on the dump averaging from $50 to $60 to the ton.

"On the *Jenny Long*, *Silver King*, *Silver Queen*, and the Star Company's claims nothing more than assessment-work has been done during the past season. The principal development-work done has been on the *Joshua*, *Tubal Cain*, and *King William* ledges, owned by the Nicola Milling and Mining Company, Limited (foreign), which run through Mineral hill, Stump lake.

"Work done on the *Joshua*—

	Feet.
Main double-compartment shaft	400
Air-shaft connecting with 100-foot level	85
Drifts on 100-foot level	175
Drifts on 200-foot level	220
Drifts on 300-foot level	350
Total	1,230

"Work done on the *Tubal Cain*—

Main double-compartment shaft	220
Air-shaft connecting with 50-foot level	40
Drifts on 50-foot level	160
Drifts on 116-foot level	300
Drifts on 220-foot level	200
Tunnel connecting with 116-foot drift	290
Tunnel to connect with 220-foot drift	400
Total	1,610

"Work done on the *King William*—

Main double-compartment shaft	175
Air and other shafts	75
Drifts on 100-foot level	180
Drifts on 175-foot level	102
Total	532"

From the above reports it will be seen that during the years 1887-90 there was quite an excitement around and considerable justifiable work done in the vicinity of Stump lake.

Referring now to a report by Dr. Dawson which is given in the 1894 Annual Report (N.S.) of the Geological Survey of Canada, page 334B, Dr. Dawson gives the assay results of several samples taken by his staff in the Stump Lake vicinity, which is followed by the statement: "Though scarcely any work has been done upon these deposits since 1890, partly in consequence of the general depression in mining matters, but in this instance also because of special difficulties of other kinds which have affected some of the companies chiefly concerned, there can, I believe, be no doubt that this district will ultimately become a mining centre of some little importance."

From the above extracts the general history of the Stump Lake vicinity in a mining way can be deduced up until 1894. Also the geology and mineralization is described and an opinion by so eminent an authority as Dr. Dawson is given in regard to its future as a mining camp.

Since 1890 until quite recently practically no work has been done in this camp.

In March, 1916, according to the Mining Recorder's report, eight Crown-granted claims were acquired by the Donohoe Mines Corporation; these included most of those mentioned in Mr. Hussey's report, the most important being the *Joshua*, *Tubal Cain*, and *King William*.

There is a good hoisting-engine at the *Joshua* shaft which was installed several years ago. A small concentrating plant consisting of a jaw-crusher, a tubular-steel-bar pulverizer, and two concentrating-tables was erected, and some ore from the old dump as well as some extracted from the workings on the *Joshua* claim was run through. At the time of the writer's visit the work was closed down and the mine full of water to the 100-foot level. A grab sample was taken from a portion of the dump, from which, according to the foreman's statement, the high-grade ore had been removed for concentrating purposes. This sample from the discarded ore gave on assay: Gold, 0.08 oz. a ton; silver, 20 oz. a ton.

The following is from a letter recently received from Frank M. Hawkes, secretary and treasurer of the Donohoe Mines Corporation:—

"SEATTLE, WASH., U.S.A., January 28th, 1918.

"The facts are that no machinery has been scrapped and we have no intention of discarding any of our equipment. We do intend, however, to add to our grinding units in order to increase the capacity of our concentrating plant.

"We shipped three car-loads to Trail smelter during 1917. The returns in gold values ranged from 3.04 oz. to 0.48 oz. a ton; in silver, 36.6 oz. to 24.8 oz.; in lead, 12.1 to 6 per cent. in copper, 1.17 to 2.59 per cent."

LILLOOET DISTRICT.

LILLOOET MINING DIVISION.

Report of John Dunlop, Gold Commissioner.

I have the honour to submit the annual report on the progress of mining in Lillooet Mining Division during the year 1917.

Mineral Claims.

Bridge River.—The development-work done during the past season has been limited in character and confined to the few Crown-granted mineral claims on Cadwallader creek—viz., *Lorne*, *Pioneer*, and *Ida May* group.

Lorne Mine.—Length of tunnels driven, 532 feet; surface work, 120 feet of open-cuts averaging 4 feet wide by 6 feet in height, exposing seven different ledges; also 620 feet of gravity-tram line built to convey ore to stamp-mill. The manager of this property reports 1,500 tons of ore taken from tunnels driven on ledges, and milling same; no stoping was done. The tailings of such ore milled are reserved for further treatment. Gross value of ore milled, $22,500; after deducting cost of transportation and milling, a net return of $12,750, on which amount the tax of 2 per cent. is levied.

Pioneer Mine.—No particulars from the manager of this property have been given this office in respect to mining operations or amount of ore milled. I understand the owners have had a most successful season.

Ida May Group.—Operations on this property were resumed and work commenced early in May and continued until the month of October. The work consisted in driving and crosscutting several veins, disclosing in course some fine ore. It is the intention of this syndicate to erect a milling plant in the near future.

Wayside Mine.—Situated on Sucker creek, Bridge river. Development-work during the season was confined to No. 4 tunnel. This tunnel was extended into the hill to a depth of 510 feet. Several lenses of milling-ore from 30 to 40 feet long were encountered; one lens at its widest filling the fissures. The walls of this fissure remain constantly from 5 to 6 feet apart, with talc on both walls; but on the whole, so far, the filling met with has been heavily crushed wall-rock. No work was done on the other ledges this season, where good ore has already been disclosed in course of previous operations. The small mill was run a few times to test the machinery, but no collection of values was made.

Upper Gun Creek.—About forty miles from intersection with Bridge river, on Copper mountain, some promising locations owned by local parties, staked three years ago, attracted the attention of Eastern capital. These claims, with but little development-work, show fairly good values in copper, and further explorations in the same neighbourhood prove the extensive area of this newly discovered mineral belt. Examinations made by mining engineers, early, and late in the fall, I understand were favourable. Considering the location and difficulties encountered in reaching Copper mountain, the fact that capital can be attracted to outlying sections heretofore considered inaccessible should encourage the intelligent prospector in his search for hidden treasures. Many of the claims in this new field are held under bond, and I am informed that considerable development-work will be proceeded with during the coming season. In this connection a trail leading to the new camp was commenced and extended about 20 miles.

Pemberton Meadows.—In this section I include Owl creek and that northern portion of Lillooet lake lying in this Mining Division. Beyond the annual assessment-work done by the several owners there is nothing special to report. A small plant was introduced on Owl creek by the Copper Queen Mining and Milling Company; I have no information, however, as to the character of work done or results obtained. This latter remark may likewise apply to the properties situate on Seton and Anderson lakes. The molybdenite properties on Texas creek kept a small force of men, and development-work was proceeded with for about two months.

PLACER-MINING.

Golden Dream Mining Co.—This company, operating on the South fork of Bridge river, being unable to obtain delivery of the necessary machinery to handle the heavy ground, the leases were practically untouched during the season, and the Lillooet (B.C.) Mining Company did not resume work, nearly all the shareholders being with the Allied Forces at the Front.

Operations of the individual miner were confined to Cayoosh creek, Bridge river, and Fraser river. The recovery of placer gold, so far as I can account, is $2,979.18, showing an increase of $79.18 over 1916.

OFFICE STATISTICS—LILLOOET MINING DIVISION.

Free miners' certificates issued	213
Mineral claims recorded	308
Certificates of work recorded	213
Placer claims recorded and rerecorded	8
Mining and dredging leases in force	35
Conveyances, etc., recorded	69

Revenue.

Free miners' certificates	$1,529.00
Mining receipts, general	2,384.80
Tax, Crown-granted mineral claims	305.00
	$4,218.80

CLINTON MINING DIVISION.

REPORT OF E. C. LUNN, GOLD COMMISSIONER.

I have the honour to submit the annual report of the Clinton Mining Division of Lillooet District for the year ending December 31st, 1917.

As will be noted from the office statistics, the mining industry for the year 1917 showed no marked activity, the business transactions being very little more than last year.

The soda-deposits mentioned in last year's report have received considerable attention in the way of investigation during the past year and several new claims have been staked. The holders of the mineral claims at Chilko lake have been steadily continuing development-work, and now report finding molybdenite in considerable quantities. These claim-holders state that with a small amount of road-construction they can easily transport ore to salt water. There has been very little placer-work during this season. Since the close of the year and prior to the present date a number of claims have been staked in the vicinity of Clinton. These claims are stated to contain valuable chemical deposits largely used in the manufacture of steel. If these locations prove satisfactory it will make considerable activity in this division.

OFFICE STATISTICS—CLINTON MINING DIVISION.

Free miners' certificates (individual)	51
Mineral claims recorded	41
Placer claims recorded	22
Conveyances, etc.	15
Certificates of work	10

YALE DISTRICT.

NICOLA MINING DIVISION.

REPORT OF J. A. MURCHISON, MINING RECORDER.

I have the honour to submit herewith the annual report and office statistics of the Nicola Mining Division for the year ending December 31st, 1917.

Last year active development on two groups of mines was reported—the *Aberdeen* and the *Donohoe*. In the early months of 1917 the promise seemed good for continuous and profitable operation, but unfortunately the promise has not made good.

Aberdeen. This mine has shipped in the past two years a fair tonnage of ore of excellent grade. I learn that certain difficulties compelled the cessation of operations in the early fall.

Donohoe. This group of eight claims was operated by the Donohoe Mines Corporation, which confined its attention chiefly to the *Joshua*. Having on the surface a large tonnage of ore mined some thirty years ago, in addition to that mined by the corporation from the upper levels of the mine, it was decided to install a flotation plant to concentrate this. This plant was in operation for a short time during the summer. As a result of this, three car-loads were shipped to the smelter at Trail, giving returns as follows: 0.48 oz. to 3.04 oz. gold a ton, 24.8 oz. to 36.6 oz. silver a ton, 6 to 12.1 per cent. lead, and 1.17 to 2.59 per cent. copper.

It was found, however, that the grinding-machinery was unsuitable and inadequate and the property was closed down. During October, the mine having been unwatered below the 300-foot level, this was thoroughly sampled, and the management expresses itself as well pleased with the results. A directors' meeting was held in Seattle on the last day of the year, and it was decided to remedy the defects of the mill. Active work is anticipated in 1918.

The Donohoe mines are situated at Stump lake. Other interests in that camp are held by Dr. Bridgeman, of Vancouver, who spent his vacation in his customary manner, prospecting his holdings, with some encouragement; by Mansfield & Gardiner, of Victoria, who let a contract for some work toward the close of the year; and by Thomas Corwin, of Vancouver, who made an examination in December.

Aspen Grove. The Aspen Grove Mining Company, of Vancouver, operating under options of purchase of some forty-odd claims in the northern camp, began operations in hope of developing concentrations of ore that would permit of shipping with profit. In this they were disappointed. The manager informs me that he was not authorized to follow up low-grade ore, and is therefore unable to make authoritative statements as to quantity and quality; but he is of the opinion that in this camp very large bodies of commercial ore will be found, and that with modern metallurgical practice—i.e., flotation—a very profitable industry will eventuate.

About the end of the year H. H. Schmidt signed a lease on the *Big Sioux* for a term of five years. The lessee is R. R. Hedley, of Vancouver.

Lucky Mike. This undeveloped prospect, owned by Oscar Schmidt *et al.*, of Nicola, is said to have excellent surface promise. An opening was made by incline, and from this a car-load of ore was shipped, which carried 4.6 per cent. copper. The Granby Consolidated Mining, Smelting, and Power Company did a very limited amount of drilling on this, but results and conclusions were not made known. In November a Spokane company, the Northwestern Mines, Limited, took option of purchase on this property and let a contract in December for a 50-foot shaft which is in progress.

OFFICE STATISTICS—NICOLA MINING DIVISION.

Locations recorded	133
Free miners' certificates	145
Certificates of work	138
Bills of sale	17

VERNON MINING DIVISION.

REPORT OF L. NORRIS, GOLD COMMISSIONER.

I have the honour to submit my annual report on mining operations in the Vernon Mining Division for the year ending December 31st, 1917.

I regret to say that very little was accomplished during the year 1917 in mining in this district, and there is nothing of importance or of moment to report.

The conditions brought about by the war—the absence of capital seeking investment in mines that are not at present producing anything, the scarcity of labour and the absence at the war of so many men who were formerly engaged in mining—have brought the prospecting and development work, that was going on at one time, to practically a standstill.

OFFICE STATISTICS—VERNON MINING DIVISION.

Free miners' certificates issued	69
Mineral claims recorded	16
Certificates of work recorded	20
Rerecord of placer claim	1
Lay-over	1

YALE MINING DIVISION.

REPORT OF L. A. DODD, MINING RECORDER.

I have the honour to submit the annual mining report and office statistics for the year ending December 31st, 1916.

PLACER-MINING.

Beyond an attempt by W. E. Adams and partners to sink a shaft on their Siwash Creek leaseholds nothing has been done in placer-mining. The banks and bars of the Fraser river have been abandoned by the Chinese in favour of steady employment at high wages in other industries. I am informed that the River Gold Recovery, Limited, is putting a gold-saving machine on a bar just below Hope.

QUARTZ-MINING.

Quiet development and assessment work has been carried on throughout the Division generally. A great number of properties have been idle owing to their owners having enlisted.

The *Emancipation* group, owned by Merrick, Thomson & Beech, situated some fifteen miles from Hope, in the Coquihalla valley, shipped 61 tons of gold ore to the Tacoma smelter, which netted slightly over $21,000. Development-work is being continued and a small mill has been purchased which will be installed as soon as weather conditions permit, there being large quantities of ore on the dump which would not pay to ship without previous treatment.

On the Pittsburgh group, which adjoins the *Emancipation*, a tunnel is now being driven by John O'Connell. Assessment-work has been done on nearly all the neighbouring claims and a great deal of the vacant ground has been located and recorded. What is stated to be a continuation of the *Emancipation* lead was found across the Coquihalla river on the divide between Pierre and Dewdney creeks, but the discovery was made too late in the season to allow of any development.

In the 23-Mile district (Hope-Princeton trail) work was continued by Frank Fritz and partners on the *Diamond* group, and on the *Defiance* group by Pennie, Robinson & Bears. C. H. Brown also had considerable work done on his claims. On other claims in this area assessment-work was done and a number of new locations made. This district can only be properly handled by large capital, as it is too far from present transportation to permit the prospector to bring his claims into a productive state.

Quite a blow was administered the Division when it was discovered that most of the Jones Lake area claims were found to lie in the New Westminster Mining Division. Some of the claims are, however, still on record here, particularly those whose owners have enlisted.

On the *Emigrant* group, on Siwash creek, Fagan Bros. have been continuously at work all season, from three to six men being employed throughout the year. The property was visited in October by R. W. Thomson, Resident Engineer for the Central Mineral Survey District. After considerable work in putting the trail and bridges in shape so as to carry pack-horses, the recent severe storms have done a great deal of damage. This will have to be repaired before any ore can be brought out or any heavy equipment taken in. A small mill, which fortunately is above the trouble on the trail, is at present being installed.

On Gold creek, opposite Spuzzum, MacDonald and the Miller Mining Partnership have had a small crew at work all season and intend continuing until they cut their lead on the *Admiral* group. This they hope to do about the first of April.

OFFICE STATISTICS—YALE MINING DIVISION.

Free miners' certificates issued	220
Special certificates issued	2
Locations recorded	179
Certificates of work issued	114
Bills of sale, powers of attorney, options, etc., recorded	55
Filings	18

Revenue.

Free miners' certificates	$1,117.75
Mining receipts, general	1,609.70
Revenue, other sources	400.40
	$3,127.85

ASHCROFT MINING DIVISION.

REPORT OF H. P. CHRISTIE, MINING RECORDER.

I have the honour to submit my annual report as Mining Recorder for the Ashcroft Mining Division for the year 1917.

There is practically no change in the situation since last year. The Highland Valley Mining and Development Company has been steadily working its mine and concentrator with good results.

OFFICE STATISTICS—ASHCROFT MINING DIVISION.

Free miners' certificates issued	112
Certificates of work recorded	113
New locations recorded	117
Conveyances, etc., recorded	15

KAMLOOPS MINING DIVISION.

REPORT OF E. FISHER, ACTING GOLD COMMISSIONER.

I have the honour to submit the annual report on the Kamloops Mining Division for the year ending December 31st, 1917.

During the early part of the season a considerable amount of placer prospecting was done on the North Thompson river and tributary creeks, which resulted in several leases being applied for, but the applicants failed to complete their applications, which consequently lapsed. Outside of these operations there was practically nothing done in the way of placer-mining.

The interest and development in quartz-mining has been well sustained during the past year, which has resulted in the shipment of over 3,000 tons of ore, which would have been considerably more but for the closing-down for a time of the Trail smelter. The principal shipper has been the *Iron Mask* mine, which has employed a large force of men steadily throughout the year. This company is sparing no effort to make its property a large producer, as, in addition to the

ordinary development-work, a considerable amount of diamond-drill work has been done with satisfactory results; also a new oil-flotation plant has been installed, which it is expected will shortly double the output of the mine.

Trial shipments have also been made from the following properties: *Foghorn*, silver and lead; *Margaret*, silver and lead; *Maxime* group, copper; *Queen Bess*, silver and lead; *Windpass* group, gold. All these shipments have proved highly satisfactory to the various owners of the properties and will no doubt induce them to continue development-work.

The Granby Consolidated Mining, Smelting, and Power Company, Limited, has done some 180 feet of tunnelling on the *Copper King* and *McLeod* groups at Seymour arm, on which they have taken working options, which I understand have resulted in showing up a large body of copper ore. Work has been stopped for the winter, but is to be resumed in the spring.

A Seattle syndicate has taken an option on the silver-lead properties known as the *Queen Bess* group, at Black Pool, on which they have already commenced work, and it is their intention to erect a concentrating plant during the coming year.

The *Lydia* group of copper claims, owned by G. Fennell and associates at Chu Chua, has been bonded to W. H. Aldridge, of New York; the conditions of the bond called for immediate and continued development of the properties, and a large amount of supplies and equipment have already been taken into the claims and active work is now in progress, which will probably result in some shipments being made during the coming year.

On the *Fortuna* group, situated near Louis creek, a force of men are at work under W. J. Smith, who has a contract for the shipment of ore from this property, which he claims carries high values in platinum. It is also his intention to erect a mill near the property, for the site of which he is now making application.

The *Homestake* group, situated near Adams lake, has been bonded to Smith Curtis, who is making arrangements to commence development-work early in the coming year.

On the *Shamrock*, near Vavenby, Mr. Montgomery is driving a tunnel for a contact between porphyry and schist and is already in 135 feet. In this vicinity McDonald & Morrison have done considerable work on the *Last Chance*, *Fumarole*, and other claims, but no ore has yet been shipped. Mr. Morrison is at present negotiating with an American syndicate for the taking-over and working of these claims.

The outlook for this Division for the coming year is very good and should see a large amount of development-work accomplished and a considerable increase in the shipment of ore.

OFFICE STATISTICS—KAMLOOPS MINING DIVISION.

Free miners' certificates issued	297
Mineral claims recorded	254
Certificates of work issued	181
Bills of sale recorded	27
Mining receipts	$2,797.50
Mineral Acts	966.79

WESTERN DISTRICT (No. 6).

Report by W. M. Brewer, Resident Engineer.

OUTLINE OF THE REPORT.

The Western Mineral Survey District includes all that portion of the Province contained within the following Mining Divisions, that is to say: Nanaimo, Alberni, Clayoquot, Quatsino, Victoria, Vancouver, and New Westminster. This Survey District, and also five others, was created under the provisions of the "Mineral Survey and Development Act," an Act passed by the Legislative Assembly during the session of 1917.

Measured roughly, the Western Mineral Survey District has a maximum length of approximately 300 miles from north-west to south-east by 175 miles from north-east to south-west, including the area of the various islands between the mainland and the easterly side of Vancouver island, and contains approximately 48,000 square miles, including the area covered by the Gulf of Georgia, and the straits between the mainland and eastern coast of Vancouver island, approximating 3,000 square miles.

In the following report a detailed description of all the properties examined during the season of 1917 is given under the head of the Mining Division in which the properties are located, where either development was being carried on, or the prospects are sufficiently promising to warrant a description of them in the Annual Report.

The progress of the mining industry in the Western Mineral Survey District in 1917 has been characterized by more advancement, more prospecting, and greater production than in any year in the past. Of course, the increased production at the *Britannia* mine is responsible to a very marked extent for the improvement in the Vancouver Mining Division; as many prospectors were searching through the mountain, in the neighbourhood of that company's properties, for ore-bodies occurring under similar geological conditions. Another reason why prospecting was more popular in the district was the number of mining engineers who visited the various camps to make examinations of promising prospects in the interests of such large corporations as the following: The Consolidated Mining and Smelting Company, of Trail, B.C.; the Britannia Mining and Smelting Company, Limited, of Britannia Beach, B.C.; the Granby Consolidated Mining, Smelting, and Power Company, with headquarters at Vancouver, B.C.; the B. L. Thane Exploration Company, of Seattle, Wash.; as well as engineers who represented such important copper magnates as the Guggenheims, the Lewisohns, and the Dunn-Thompsons, of New York. In fact, there has been a more pronounced interest shown in the mineral industry generally throughout the entire Western Mineral Survey District during 1917 than has been the case for several years past.

The most popular sections for prospecting, so far as can be determined by the number of new mineral claims located during the past year, are: The Indian River district, Seymour creek, Jervis inlet, and Lynn creek, in the Vancouver Mining Division; the Alberni canal and Barkley sound, in the Alberni Mining Division; and the West arm of Quatsino sound, as well as in the vicinity of the *Old Sport* group, near Elk lake, reached from June Landing, on the South-east arm of Quatsino sound.

A very great portion of the season of 1917 was occupied by the writer in making examinations of properties for which applications for Government assistance for either wagon-roads or trails had been made. As these were scattered throughout the large district, where transportation was dependent on lines of steamers with infrequent schedules, considerable time was often unavoidably occupied by the writer in travelling from place to place.

During the coming season of 1918 it is hoped to so systematize the work as will permit examination of portions of the district of which at present practically little is known, except from the reports of a few prospectors and timber-cruisers who visited the sections some years back.

No attempt at any serious development of mineral prospects was made because of lack of transportation facilities and the comparatively low grade of the ore discovered. Some of these discoveries are reported as large bodies of low-grade ore, and if such reports are confirmed the discoveries are liable to prove of value. The "flotation" method of concentrating is found to be well adapted to nearly any one or all of the varieties of copper ore that occur in this district, and further water-power is very abundant and can usually be economically developed along the mainland coast or on Vancouver island. The transportation difficulties are not insurmountable, as while it is difficult to construct graded highways, owing to the swampy nature of much of the surface, there is as a rule an excellent supply of timber easily accessible for corduroy or planks, which make a good road-bed.

The most inaccessible portion of the Western Mineral Survey District is the interior of Vancouver island north of the Alberni canal, parts of which have even to-day been only partially explored. The mountains are high and precipitous, the underbrush has an almost tropical growth, and the fallen timber lies so thickly on the ground that the work of the prospector is seriously impeded; but with all of these difficulties to contend with, there are men who each year travel farther back into the bush in search for minerals.

The mineral resources of the Western Mineral Survey District include deposits valuable, or possibly valuable, for gold, copper, iron, coal, lime, clay, sand, gravel, and building-stone; but up to the present time the production on a commercial basis has been principally confined to coal, copper, clay, sand, and gravel, with coal and copper by far the most important.

The occurrence of coal-seams of commercial importance is confined to the eastern part of Vancouver island, although the coal-measures also occur on the western side of the island, where they outcrop at several places, the most important being at Port Alberni, also on Coal and Winter harbours, in Quatsino sound; but there has been no systematic development at either of those points, although large areas of land are held under coal licences in the Quatsino Mining Division.

The Nanaimo coalfield is the only one that has been examined in detail by the Canadian Geological Survey. This examination was made by Charles H. Clapp in 1911, and his report, which was published in 1914 as Memoir No. 51, Geological Series, will be referred to more fully in this report under the heading of the Nanaimo Mining Division.

Occurrences of copper ores are found in each of the Mining Divisions included in the Western Mineral Survey District, but by far the most important occurrence is on the property owned by the Britannia Mining and Smelting Company, on Howe sound, in the Vancouver Mining Division, which was examined by the writer during the past autumn and is described later in this report.

Several of the occurrences of copper ore on Vancouver and adjacent islands were examined during the season of 1916 and described in the Minister of Mines' Report for that year. Nearly all of these were re-examined during the past summer in order to enable the writer to note the progress in development.

The magnetite-deposits found on Vancouver and adjacent islands were all fully described by the writer in Bulletin No. 3, 1917, and as there has been practically no change in the development of these occurrences since that time, it is not deemed necessary to repeat the descriptions in this report.

That part of Vancouver island lying north-west of Campbell river near the north-east coast-line has received but little attention in the past from prospectors for metallic minerals, except by some who were searching for placer gold in black sand; but during 1917 several placer-mining leases were granted on the Nahwitte river and tributaries, which empties into Queen Charlotte sound nearly opposite to Hope island, and it is reported that considerable prospecting-work was done in the neighbourhood of Hardy bay owing to reports of the discovery of deposits of native copper in that vicinity. The usual amount of prospecting for placer gold in black sand along the north-easterly coast of Vancouver island was done during 1917, chiefly by settlers in the neighbourhood of Cape Scott, who report that comparatively small amounts of gold were recovered in sluice-boxes.

The coal-mines at Suquash, near Port McNeill, on the north-eastern coast of Vancouver island, were idle during the past year; these are owned by the Pacific Coast Coal Mines, Limited, of Victoria, B.C.

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It will be noticed from the foregoing list of publications that there are none, except the "History of the Britannia Mine" by A. E. Haggen, Bancroft's Memoir No. 23 on the geology of the coast and islands, and Le Roy's preliminary report on a portion of the mainland coast and adjacent islands, which describe the geology and mineralogy of the southern mainland coast or interior which are included in the Vancouver and New Westminster Mining Divisions. This is accounted for to some extent by the fact that Vancouver island and the adjacent islands were prospected at a much earlier date than the portion of the mainland referred to, and attracted the attention of the Geological Survey as early as 1871. Dr. A. C. Selwyn and James Richardson did the first geological work of any importance, when they explored the eastern coast of Vancouver island, and Mr. Richardson continued work on the coal areas of the island for four years afterwards. A final summary of his work is given in the Report of Progress, Geological Survey, 1876-77, pages 160-192, and is accompanied by a map.

In April, 1876, Dr. G. M. Dawson made a reconnaissance of Leech river and vicinity, paying especial attention to the origin and extent of the placer deposits. The result of his work in the southern part of the island is given in the Report of Progress, Geological Survey, 1876-77, pages 95-102, and in several papers published on the physical, glacial, and general geology of British Columbia.

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papers concerning the palæontology of the Cretaceous rocks. Professor J. C. Merriam has described fossils collected from the Tertiary formations of the west coast of Vancouver island, and has published his conclusions in the bulletin of the University of California, Department of Geology, Vol. 2, 1896, pages 101-108, and in two others papers.

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INTRODUCTION.

The writer's previous work, done at various times since 1898 in the several mining camps in each of the Mining Divisions that are included in the Western Mineral Survey District, proved of very distinct advantage, and his general acquaintance with the owners of the several mineral claims gave him a personal knowledge of the conditions in the district which was of inestimable assistance to him in carrying out his work.

The writer is under obligations to so many persons for favours extended to him during the field-work season that it would require more space to mention each case individually than is permissible, so that he is compelled to make this general acknowledgment with sincere thanks.

The southern main coast only commenced to assume importance and attract the attention of prospectors about 1898, the year of the stampede to the Yukon, about which time the *Britannia* group of mineral claims was located, and when the mineral claims known as the *Dorotha Morton*, on Phillips arm, and *Douglas Pine*, near Shoal bay, were being developed.

Previous to that time, however, in 1892 the *Elsie* mineral claim had been located on West Redonda island for iron ore, and in 1893 626 tons was mined and shipped to the Oswego Iron and Steel Company's furnace in Oregon. In 1895 this mineral claim was Crown-granted to DeWolf & Munroe, of Vancouver.

So far as the writer can ascertain, the first mineral located on or near the southern mainland coast was at the southern end of Sechelt peninsula, where some development-work was done at a very high elevation by a Victoria syndicate as early as about 1875. Later, owing principally to lack of transportation, as the writer was informed by one of the locators, work was abandoned on the original discoveries, and has never been resumed. The claims were Crown-granted and are still held by some of the original discoverers or their heirs. Some mineral claims were located in the vicinity of and adjoining this old Crown-granted property about 1906 and some development-work performed, but this was suspended about one year later, and so far as known has never been resumed.

The following extracts are made from Bancroft's report in Memoir No. 23, Geological Survey of Canada, relative to the conditions on the mainland coast in the neighbourhood of Phillips and Frederick arms, about ten miles west of the entrance to Bute inlet:—

"Previous to the year 1896 very little prospecting had been done, but in that year the district about Phillips and Frederick arms and adjacent portions of East Thurlow and North Valdes islands came into prominence. A shipment was made to the Tacoma smelter which gave returns of $31.20 a ton. During the following year the absorbing attractions offered by the discovery of gold in the Klondike caused the development of these claims to be postponed. Many prospectors passed by on their way northwards to the Yukon, while some of the late arrivals stopped to investigate the mineral resources of more accessible areas along the coast. The years 1898 and 1899 were marked by great mining activity in the Phillips Arm district, and a stimulus was given to prospecting throughout the whole area. Many claims were staked and actual mining operations were begun upon some of them. The *Dorotha Morton*, situated west of Fanny bay, on Phillips arm, received the most thorough development. Extensive preparations were made for treating the ore. A Bleichert tramway, one mile and a quarter long, was built to carry the ore from the mine to a Blake crusher, 10-stamp Morison high-speed mill, and cyanide plant, which were erected on the shore of Fanny bay. From December, 1898, to October, 1899, 12,000 to 15,000 tons of ore was crushed and treated by the cyanide process, which yielded $90,000 in gold and silver bullion. The mine was then closed, the unfortunate reason being that the operators had exhausted all the ore they could find, and in doing so found that the nature of the deposit was such as to preclude the possibility of its turning out a mine in the true sense of the word.

"Extensive work was done upon other claims, small shipments being made from some of them; but when the *Dorotha Morton* shut down, operations were soon suspended upon the larger

number of the properties in the district. Work progressed on the *Blue Bells*, which is situated on Frederick arm, and on the *Colossus* group of claims, on Estero basin. On the former a tramway to the shore was constructed, and in 1902 a trial shipment of ore was sent to Tacoma, which returned $13.50 a ton in gold and silver. When the writer visited this district in 1907 all mining operations had ceased. The extensive equipment of the *Dorotha Morton* and the tramway of the *Blue Bells* were in a sadly dilapidated state, shafts were full of water, and some of the tunnels were impassable because of fallen rock.

"In 1906 development-work began on a number of copper claims on South Valdes (Quadra) island; in the summer of 1907 this island was the centre of the only mining activity within the whole area. Rapid progress was being made upon properties at Copper cliff, Gowland harbour, and in the vicinity of Granite bay. From the *Copper Cliff* mineral claim several small shipments had been made which gave satisfactory returns."

The history of mining operations in the vicinity of North Vancouver on Lynn and Seymour creeks, as well as in the mountains adjacent to Howe sound, dates back to about 1898, when the *Britannia*, *Goldsmith*, *Empress*, and other groups of mineral claims were staked. Since then active operations have been carried on continuously only on the *Britannia*. During recent years the Britannia Mining and Smelting Company, Limited, acquired by purchase the *Goldsmith* and *Empress* groups, as well as many other mineral claims in the neighbourhood of the original holdings of the company, which to-day places that company in the ranks of the big copper-mining companies in the world.

The history of mining on Vancouver and Texada islands was quite fully discussed by the writer in his report on the copper-gold-silver ore deposits on Vancouver and adjacent islands, published in the Report of the Minister of Mines for 1916, pages 304-360, so that it is not necessary to repeat the details in this report, but, as no reference to the coal-mining industry was made, the following brief synopsis is taken from the report of Dr. G. M. Dawson in the "Mineral Wealth of British Columbia," Annual Report, Vol. III., 1887-88, page 80B, 1889:—

"The discovery of coal in British Columbia antedated that of gold by more than twenty years, but did not at first produce any effect comparable with that of gold upon the history of the country. Dr. W. F. Tolmie was the first to make known the existence of coal on the coast of the Province in 1835. He was then stationed at the Hudson's Bay Company's post, known as Fort McLaughlin, on Millbank sound, and specimens of coal were brought to him by Indians from the north-east coast of Vancouver island, doubtless from Suquash. The steamer "Beaver," belonging to the company, arrived on the west coast in 1836, and thereafter small quantities of coal were obtained for her, as well as for blacksmiths' use, from this place, being derived from natural outcrops on the beach. In the year 1849 a coal-miner was brought out by the company from Scotland to more fully test the character of the coal on this part of the coast, and in 1851 a further number of miners and necessary machinery were imported. Exploratory work by sinking and boring was prosecuted along the coast of Vancouver island, between Port McNeill and Beaver harbour, till 1853, but without resulting in any notable discoveries.

"Meanwhile, in 1850, the existence of coal at Nanaimo had been ascertained by J. W. McKay, and in the following year it appears that most of the miners above referred to were transferred from the northern end of the island to that place. Work began in earnest at Nanaimo in 1852, and before the close of 1853, 2,000 tons was reported to have been shipped, chiefly to San Francisco. The price of coal at Nanaimo was at this time $11 and at San Francisco $28 a ton. The Hudson's Bay Company, under the name of the Nanaimo Coal Company, continued to work the mines thus opened until 1861, when these were sold to the Vancouver Coal Mining and Land Company."

Charles H. Clapp, in Memoir No. 51, entitled "Geology of the Nanaimo Map Area," published by the Canada Department of Mines in 1914, gives the following further account of the history of coal-mining in the Nanaimo district:—

"Most of the mining by the Hudson's Bay Company was probably carried on from the old shaft, now situated in the city of Nanaimo, west of Nicol street, although mining was done also on Newcastle island and on the shore of Commercial inlet (probably near the causeway on Commercial street), where coal, the upper (Douglas) seam, was first discovered. Under the Vancouver Coal and Land Company, which was reorganized in 1889 and called the New Vancouver Coal Company, most of the large collieries in the immediate vicinity of Nanaimo were opened up. In 1902 the properties of the company were taken over by the Western Fuel

Company, under whose management the collieries have been operated to the present time. The Western Fuel Company opened up the new Northfield Colliery, or, as it is better known, the Brechin mine, in 1905, and has recently completed two new shafts, 1,064 feet in depth, called the Reserve mine, and a slope, the Douglas mine, which was abandoned, it is said temporarily, during 1912.

"In 1869 or 1870 Robert Dunsmuir discovered coal about five miles to the north-west of Nanaimo, at Wellington, although it is reported that he first located the Harewood mine, which was, however, sold to the Vancouver Coal and Land Company and was first worked by them during 1864 and 1865. The Wellington Collieries Company, of which Mr. Dunsmuir was the first president and chief owner, was organized and began to produce coal from the Wellington mines in 1871, the coal being shipped for long-distance transportation from Departure Bay. The Wellington Colliery was a large producer for several years, but finally shut down in 1900. Meanwhile the same company had developed the Union Collieries in the Comox district in 1888, the Alexandria Colliery at South Wellington in the Nanaimo coalfield in 1895, and the Extension Collieries in the same field in 1899. The Alexandria Colliery was shut down in 1902, but the other two collieries have been important producers to the present time. In 1910 all of the property of the Wellington Collieries Company was taken over by the Canadian Collieries (Dunsmuir), Limited."

During 1917 there has been considerable history made in the coal-mining industry on Vancouver island, which has affected not only the two pioneer collieries, but also the smaller operators.

About a year ago a controlling interest in the Western Fuel Company changed and a reorganization of the company took place, when Thomas Stockett resigned as general manager, being succeeded by G. W. Bowen.

Under the new management the output of the mines has been very considerably increased, especially at the Reserve mine, which produced 86,805 long tons in 1916, but increased to 156,943 long tons in 1917. The Harewood mine was reopened on July 15th, 1917, from which a steadily increasing output has been maintained, reaching 700 long tons a day.

The company has been doing a great deal of diamond-drilling during 1917 with the view of opening at least two new mines during 1918. The location of these is not yet decided upon, but the probabilities are that one will be on the Company's farm westerly from and adjoining the city of Nanaimo, and another on the old Douglas mine, while a third new mine may be opened near the mouth of the Chase river.

The management of the Canadian Collieries (Dunsmuir), Limited, has been changed during the past year. The former general manager has been succeeded by J. M. Savage, of Victoria, with Thomas Graham, formerly Chief Inspector of Mines for British Columbia, as general superintendent. This company opened a new mine recently at South Wellington, about six miles southerly from Nanaimo, where a slope known as No. 5 mine is being driven. The company is also boring with diamond-drills near Craig's Station, on the Alberni extension of the Esquimalt & Nanaimo Railway.

The Granby Consolidated Mining, Smelting, and Power Company, Limited, after having bored several diamond-drill holes, has decided on the approximate location of the new mine-workings proposed on the coal lands that company acquired in 1917 near Cassidy Siding, about eight miles southerly from Nanaimo. A spur track three-quarters of a mile in length to connect the workings with the Esquimalt & Nanaimo Railway track is being built, also a large acreage is being cleared for the permanent mining camp, and it is expected that during the spring of 1918 this company will begin producing coal for manufacturing into coke at its copper-smelting plant at Anyox.

ALBERNI MINING DIVISION.

The chief centres of activity in the Alberni Mining Division during 1917 have been along the Alberni canal and on Copper island, in Barkley sound. As the various mineral claims in the Division were described in the Report of the Minister of Mines for 1916, the present report will be confined to descriptions of those properties only on which serious development-work has been carried on during the past year.

Monitor Group. This group of mineral claims was described on page 321 of the Report of the Minister of Mines for 1916, but since then new ore-bodies have been discovered on the *Monitor No. 1 Fraction* claim, close to the shore of the canal.

Following the partial development of the new discoveries, Samuel Ryder, of St. Albans, England, concluded negotiations through J. A. Skene, the mine manager, to purchase for cash the *Monitor* and adjoining *Happy John* groups of mineral claims, and authorized the construction of a wharf, bunkers, and power-house near the portal of the main adit driven on the newly discovered ore-body, which is about 40 feet above high tide; also the installation of a compressor plant, so that ore shipments can be made regularly to a Coast smelter.

The discovery of the ore-body mentioned, called the *Leonard* showing, was made early in 1917, when a contract was made to drive 150 feet along the strike and to make crosscuts to determine the width of the body at several points. This contract was later extended to continue the drift to 300 feet in length, at which point the face of the adit was when last examined on December 21st.

A survey of the workings determined that the new discovery is apparently an extension towards the south-east of the mineral-bearing zone, on which are the workings known as the Hedley open-cuts and shaft, from which a shipment of ore was made in the spring of 1917 that carried 8.65 per cent. copper.

Characteristics of the Ore-body.—The ore-body just mentioned occurs filling a lenticular fissure in a shear-zone in an igneous rock, probably gabbro, at some distance from the contact between the gabbro and a wide belt of crystalline limestone. The ore-body is a typical contact-metamorphic deposit, and the contact-zone is well defined and filled with such minerals as epidote, hornblende, and garnetite, which form the gangue material in which occurs the mineralization, made up of chalcopyrite, iron pyrite, magnetite, and occasionally some pyrrhotite. The outcropping, on which a drift-adit is driven, occurs as the face of a bold bluff about 50 feet from the water in a small bay about half a mile up Alberni canal from the mining camp. The full width of the mineralization had not been determined in August, 1917. Later, when grading was being done for a foundation for the compressor plant, it was found that the mineralized zone on the beach was about 15 feet wider than where it outcropped at the portal of the adit.

Apparently there is a zone of mineralization of possibly 30 or 40 feet in width, with its strike N. 60° W. and dipping vertically. The mineralization develops on both sides of a well-defined cleavage-plane that is probably a fault-plane, which has been followed in driving the drift-adit and forms one wall of the adit. Sometimes this plane is also a wall of the ore-body, but often the mineralization occurs a few feet on either side of the plane, and the permanent walls or boundaries are found several feet either to the right or left of the plane, where they are exposed by a systematic series of crosscuts made at right angles to the main adit.

Although quite a considerable tonnage of shipping-ore, averaging about 8 per cent. in copper with low gold and silver values, is practically assured and may be classed as "actual ore," yet it appears as though the ultimate value of the property will be found in the lower-grade ore, the extent of which, while yet undetermined, is apparently quite great, which should be treated by concentration by the flotation process.

Development-work.—The development-work done during 1917 has been confined to the *Leonard* showing, and consists of an adit about 300 feet long, with crosscuts in both directions made at right angles to the adit at intervals of about 50 feet. In addition to this underground development-work, there has been constructed a wharf, bunkers, and buildings for boiler and compressor-plants, blacksmith-shop, and powder-magazine.

Marble Cove Group.

This group contains five mineral claims called the *Marble Cove Nos. 1, 2, 3, 4, 5*, situated on the west side of Copper island, in Barkley sound, and owned by George and Andrew Smith and Carl Ulstrup, of Alberni. This group of mineral claims was examined on August 21st and 22nd, 1917, in company with the owners.

Characteristics of the Ore-bodies.—The main showing of mineral on the claims is about 900 feet in a south-easterly direction from a small bay on the westerly side of Copper island, where there is an occurrence of chalcopyrite typical of the contact-metamorphic replacement type of ore-deposits, but developed in crystalline limestone which has been partially replaced by ore some distance from the actual contact between the limestone and granite. The outcropping is lenticular in shape, and an open-cut made into it shows a width of ore of about 30 feet and a length of about 60 feet. A grab sample taken from the dump assayed: Gold, trace; silver, 0.1 oz.; copper, 2.3 per cent. The apparent strike of the ore-body is north (mag.), and as there

are no well-defined walls it is not possible to determine the dip, as the ore grades from a fairly solid body of chalcopyrite to small grains of chalcopyrite and iron pyrite disseminated through a siliceous gangue made up of some quartz associated with a greenish-coloured lime silicate.

About 600 feet in a southerly direction from the occurrence of ore referred to there is a wide occurrence of pyrrhotite and impure iron ore, that has a structure resembling a dyke, which strikes towards the south-east, or nearly at right angles to the general strike of the mineralized zone, and dips northerly at an angle of 70 degrees. On the southerly side of the pyrrhotite, about 100 feet distant, there are outcroppings of copper ore of fairly high grade, similar in their general characteristics to the occurrence in the open-cut first mentioned.

Since the examination the *Marble Cove* group of mineral claims has been bonded to James M. Russell, of Oak Bay, Victoria, who since has had a crew of miners at work on the property, but with what results is unknown.

Sudbury Pacific Group.

This group of mineral claims contains the *Ecole*, *Hoge*, and *Seddal* claims, situated on a point near the Ecole fishing-station, on Barkley sound, in a northerly direction from Copper island, and owned by George and Andrew Smith and Carl Ulstrup, of Alberni. The writer made an examination of this group of mineral claims on December 22nd, 1917.

The fact that samples of ore carrying nickel had been sent to the Bureau of Mines about that time, which were said to have been taken from this property, naturally gave the property especial interest, so that considerable disappointment was experienced in finding that the only showing of ore found up to that time occurred below mean-tide level and could only be examined at extreme low tide; fortunately, samples were secured which assayed:—No. 1: Gold, trace; silver, trace; copper, trace; nickel, 0.35 per cent. No. 2: Gold, trace; silver, trace; copper, trace; nickel, 1.9 per cent.

Geology.—The prevailing rock formation in the vicinity of the group of claims is diorite, or possibly granodiorite, and this rock on which the claims are located forms a bold point that stretches into the sea, and is fissured and fractured along a zone about 4 or 5 feet wide. The fissuring apparently forms a depression along the top of the ridge which can be followed, although no work is done, for quite a distance in a north-easterly direction. The fissure is filled chiefly with breccia having a banded structure, and containing small lenses of mineral made up mostly of pyrrhotite, with some arsenical iron associated with it. So far as the writer could see, the ore does not occur above mean-tide level, but, as no work had been done except on the extreme point, there was little from which to form an opinion. The samples taken represented in each sample 8 inches in width of mineral occurring in the banded breccia gangue material. The interesting feature about the prospect is that the ore carries some percentage of nickel, and is the first pyrrhotite ore found on the Coast that carries such values.

Canadian.

This property, situated on the Alberni canal at Murdock's Landing, about fourteen miles below the town of Port Alberni, was described in the Report of the Minister of Mines for 1916. At the time that examination was made the claims had only been staked a few weeks by George Dickson, in partnership with Wm. Hutton. Dickson left for service with the C.E.F. overseas soon after staking the claim, but Hutton, being physically unfit for that service, has since been working on the claim almost continuously. For that reason the writer made a second examination on August 14th, 1917, when he found that an adit had been driven 30 feet to come under an outcropping of high-grade chalcopyrite about 20 feet higher above. This adit would require to be driven about 5 feet farther in order to attain its purpose, provided the ore maintained the vertical dip shown in the open-cut.

The open-cut referred to is 28 feet long, 14 feet wide, and 14 feet deep at the deepest point. The ore mined from this cut has been sorted and occupies two dumps, on which there are about 50 or 75 tons of shipping-ore awaiting transportation to the beach, a distance of about one mile, preparatory to shipment to a smelter for treatment. The strike of the ore-body is N. 10° E. and dip vertical.

The ore outcrops on the right-of-way of the Canadian Northern Pacific Railway, and is exposed in a cut made for the grade of that railway, occupying a fissure in a shear-zone of contact-metamorphic rock some little distance from the actual contact, between it and limestone.

Samples taken from the dumps assayed:—Sample from closely sorted dump: Gold, trace; silver, 0.4 oz.; copper, 10 per cent. Sample from dump not so closely sorted: Gold, trace; silver, trace; copper, 6.9 per cent.

Victoria.

This group of mineral claims contains five claims known as the *Vancouver Island, Copper, Black Bess, Robin,* and *Blue Bird,* located about one mile and a half easterly from Murdock's Landing on Alberni canal. The grade of the Canadian Northern Pacific Railway crosses the *Blue Bird* and *Copper* mineral claims. The property is owned by W. H. Philpot, Levy Dendorf, and Gertrude Dendorf, of Nanaimo, and was examined by the writer on August 15th, 1918.

Geology.—The prevailing country-rock in the vicinity of these claims is granodiorite, which has been very much sheared and fissured. The extent of the shear-zone is not determined either along its strike or across its width. The strike is north and the dip of the cleavage-planes of the fissuring is practically vertical.

Characteristics of the Ore-bodies.—Chalcopyrite ore occurs filling some of the fissures in the shear-zone. The occurrences are lenticular in shape and average about 2 feet in width on the surface. At one point two main lenses of ore are exposed in an open-cut 85 feet long and about 20 feet deep, each lens being about 30 feet in length. Towards the bottom of the open-cut the ore-bodies are narrower than near the surface, and, although they appear to have wedged out at the bottom of the cut, it seems as though, if work is continued deeper, other lenticular deposits might be found.

All of the ore had been mined from the open-cut and carried in a wheelbarrow to a dump beside the railway-grade, a distance of 365 feet. A grab sample taken from the dump assayed: Gold, trace; silver, 0.2 oz.; copper, 4 per cent.

Development-work.—The development-work consists of the open-cut already referred to, as well as several other open-cuts along the strike of the shear-zone, and at one point the miners working on the property had faced up one of the open-cuts to start an adit to drift along the strike of the fissuring.

Bank Group.

This group of mineral claims contains the *Ghylbank, Hazel, Green,* and *Ore* claims, located on Mount Douglas, about thirteen miles easterly from Port Alberni and about one mile and a half by trail from the old hotel and road-house built about twenty years ago by Robert de Baux when the work was in progress on the *Golden Eagle* and *Consolidated Alberni* mines. The group, which is owned by James Dryden and I. B. Atkinson, of Port Alberni, was examined by the writer on August 20th, 1918.

Geology.—The prevailing country-rock in the vicinity of the *Bank* group of mineral claims is a much-altered metamorphic rock considerably fractured and sheared, in which occur quartz veins mineralized with iron pyrite, chalcopyrite, and a little galena. The strike of the main mineralized zone is S. 20° W. and dip of the fissuring varies from 20 to 40 degrees towards the north-west. The occurrence of the ore-bodies is at an elevation of about 1,950 feet above sea-level.

Development-work.—The development-work consists of a series of open-cuts on the *Ghylbank* claim and a shaft sunk below the floor of the largest of the open-cuts. The shaft is said to be 25 feet deep, but, being full of water at the time, could not be examined. There is also an open-cut and an adit on the *Hazel* claim, but these were caved so much that no examination could be made.

A grab sample taken from the dump at the mouth of the open-cut on the *Ghylbank* claim assayed: Gold, trace; silver, 1 oz.; copper, 3.2 per cent.

The extent of the mineralized zone is undetermined, but along the apparent line of strike it can be traced for several hundred feet, while the width of the mineralization is shown in the largest open-cut to be at least 10 feet.

The lack of transportation is a severe handicap to this property, as at present all supplies have to be hauled about thirteen miles by wagon-road, then packed about a mile and a half over a mountain trail.

CLAYOQUOT MINING DIVISION.

There was but little activity in mining operations in the Clayoquot Mining Division during 1917, except on the *Indian Chief* group of mineral claims on Sidney inlet, where the Tidewater Copper Company operated during the entire year in constructing a concentrating-mill to treat ore by the flotation process and in development-work on the ore-bodies. The following report on the property is made in detail because this is the first attempt to be made on the west coast of Vancouver island to adopt this method of concentration.

Indian Chief Group.

This group of mineral claims originally contained four full-sized claims and three fractional claims, all of which are now Crown-granted, but since the property was acquired through purchase by the Tidewater Copper Company in 1916 there have been added fifteen claims, some full-sized and others fractions, contiguous to the original group. The original group was staked in 1897 by two prospectors named Jones and Laidlaw, who located the claims up the mountain-side in a westerly direction from the beach on Sidney inlet in the following order: *Mephistopheles Fr.; Brutus No. 2; Scotlet Fr.; Victor;* the *Tinnecanum*, adjoining the *Scotlet Fr.* on the south-west; the *Victor Fr.*, lying to the south-west and south-east of the *Victor*, and occupying an irregularly shaped area on the summit of the mountain between the *Victor* and the *Scotlet Fr.* and *Tinnecanum;* and the *Leschi*, which adjoins the *Victor* on the south-east corner and the *Victor Fr.* on the north-east. The claims located more recently are grouped around and contiguous to those named, with four claims, in addition to the *Mephistopheles Fr.*, facing on the beach, thereby affording the property approximately 6,000 feet of water-front and occupying about the same width, extending westerly for about 7,200 feet.

Between 1897 and the present time the original property has changed ownership twice—first from the original locators to the Dewdney Syndicate, represented by the late ex-Governor Dewdney, of Victoria, and from the successors of the Dewdney Syndicate, prior to the death of Mr. Dewdney, to the present owners. In addition to the actual change of ownership, the property has been held under option of purchase by Barclay Bonthrone, of Vancouver, in 1898, who optioned it from the original locators, but failed to exercise the option after driving a drift-adit about 250 feet on the *Tinnecanum* claim.

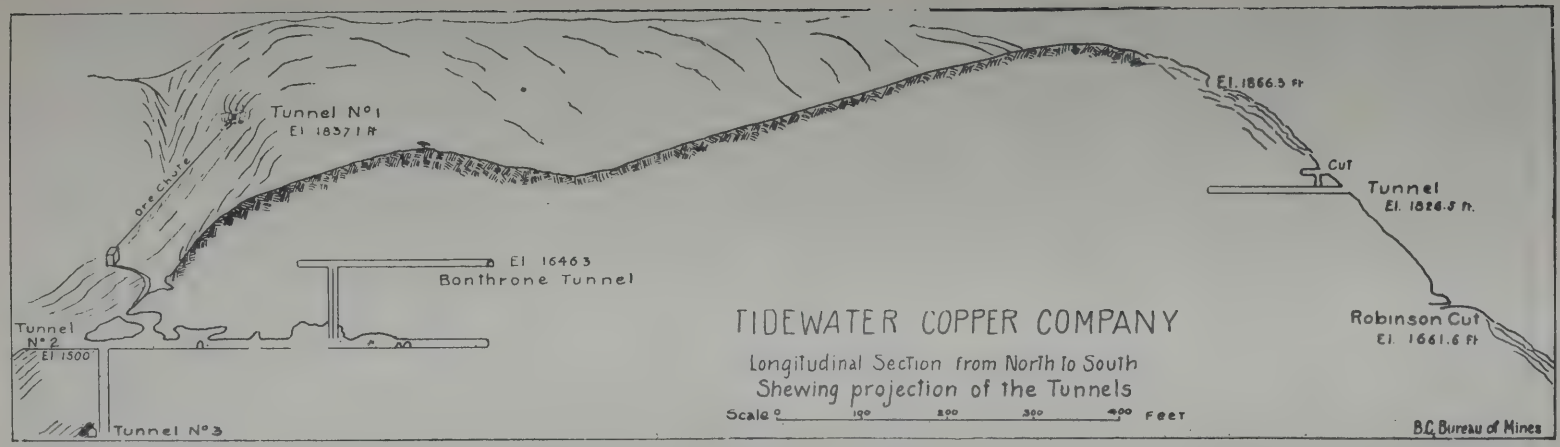
After reverting to the original locators the group of mineral claims was acquired by purchase by the late ex-Governor Dewdney for the Dewdney Syndicate, which performed some development-work on the *Victor* mineral claim near the north-westerly boundary of the group, and made a shipment of copper ore carrying about 18 per cent. copper, together with low gold and silver values. This was packed by horses from the mine-workings to the beach.

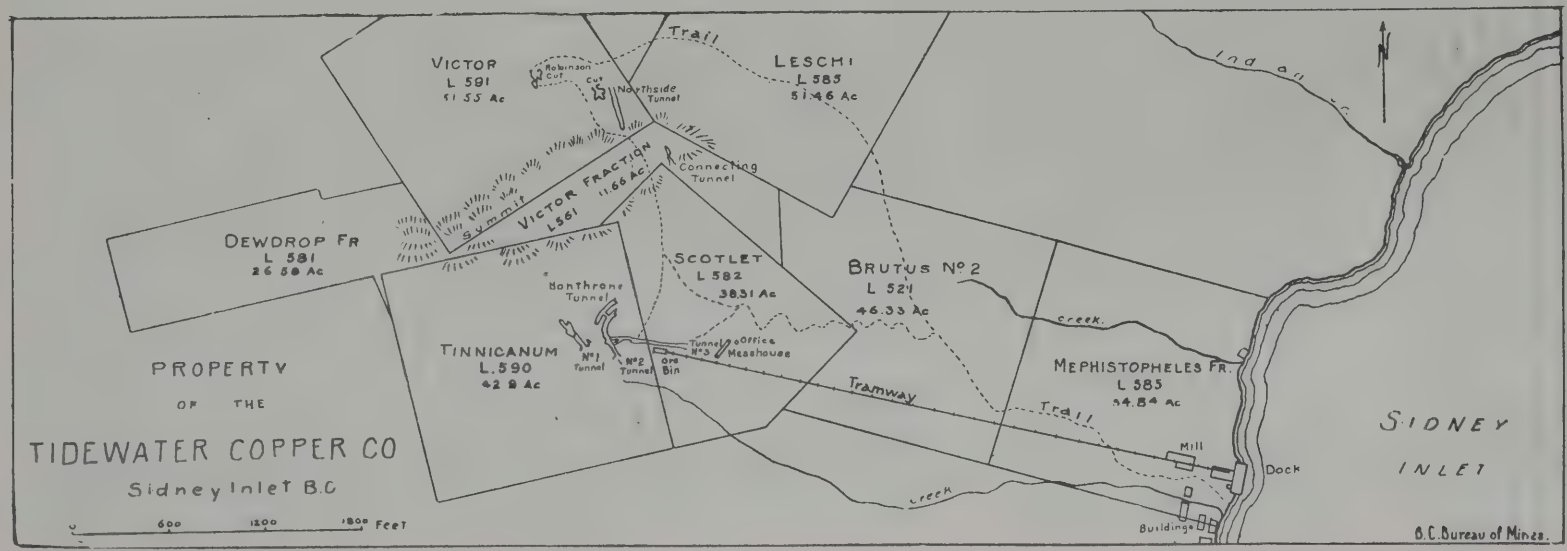
Early in 1907 the property was optioned by the Northern Exploration Company, of Seattle, which performed work on the *Tinnecanum* and *Scotlet* claims, also built a wharf, bunkers, and aerial tramway to connect the mine-workings with the beach. The length of the tramway is 2,500 feet and difference in altitude between terminals 1,550 feet. This company mined and shipped ore, as the development-work progressed, from pockets or lenses of bornite which outcropped on a steep bluff near the upper terminal of the aerial tramway, at elevations above sea-level of from 1,550 to 1,750 feet. The company performed only a limited amount of systematic development-work or prospecting-work, and sold out the option in 1908 to the Tyee Copper Company, which continued to mine and ship such ore as could be easily found without systematically prospecting or doing any dead-work, until 1909, when the management allowed their option to be cancelled, and the property reverted to Dewdney & Springett, successors to the Dewdney Syndicate. From that time the property remained idle until 1916, when an option was taken by Eden & Tanner, of Seattle, who disposed of it to the present owners, the Tidewater Copper Company, of which Sam I. Silverman, of Seattle and New York, is managing director.

An examination and further development showed that, while former operators had gouged out practically all the shipping-ore that could be found without doing systematic development-work, yet there was still some ore of shipping grade remaining near the old workings, but that the value of the property was represented by a "probable" and "possible" tonnage of low-grade copper ore well adapted to treatment by concentration by the flotation method. About 1,000 tons of shipping-ore was mined and shipped to the Tacoma smelter. Later construction of a concentrating plant to treat about 100 tons of ore a day was commenced in the spring of 1917 and completed in November of that year. The plant was first operated in December of that year, and was seen in operation by the writer during the first week of January, 1918.

INTRODUCTION.

The examination of the *Indian Chief* group of mineral claims was made between December 23rd, 1917, and January 6th, 1918, during which time an unusually heavy rainfall was experienced, but the absence of snow enabled as thorough an examination to be made of the surface as was possible, when the heavy growth of underbrush and quantity of fallen timber that covers the surface is considered.


Tunnel N°1
El 1837.1 ft
Ore Chute
El. 1866.3 ft
Cut
Tunnel
El. 1826.3 ft.
El 1646.3
Bonthrone Tunnel
Tunnel
N° 2
El 1500
Tunnel N°3
Robinson Cut
El. 1661.6 ft
TIDEWATER COPPER COMPANY
Longitudinal Section from North to South
Shewing projection of the Tunnels
Scale 0 100 200 300 400 Feet
B.C. Bureau of Mines


VICTOR
L 591
51.55 Ac
Robinson Cut
Cut
Northside Tunnel
Trail
LESCHI
L 583
51.46 Ac
Connecting Tunnel
VICTOR FRACTION
11.66 Ac
L 561
Summit
DEWDROP FR
L 581
26.58 Ac
SCOTLET
L 582
38.51 Ac
BRUTUS N° 2
L 524
46.33 Ac
Bonthrone Tunnel
TINNICANUM
L.590
42.8 Ac
N°1 Tunnel
N°2 Tunnel
Ore Bin
Tunnel N°3
Office
Meashouse
creek
MEPHISTOPHELES FR
L 583
34.84 Ac
Tramway
Trail
Mill
Dock
Buildings
creek
SIDNEY
INLET
PROPERTY
OF THE
TIDEWATER COPPER CO
Sidney Inlet B.C.
0 600 1200 1800 Feet
B.C. Bureau of Mines.

The writer desires to convey his appreciation and thanks for many favours received to Sam I. Silverman, managing director of the Tidewater Copper Company; Peter E. Peterson, superintendent of the mill; Wesley Warren, general superintendent; and Lee Green, mine foreman; also to Leighton Stewart, M.E., of New York, for valuable assistance in working out the geology and general conditions surrounding the ore-bodies.

Owing to the fact that no previous geological work had been done in this section of Vancouver island the co-operation of Mr. Stewart was especially valuable.

GEOGRAPHY.

The *Indian Chief* group is situated on the west coast of Vancouver island in the mountains bordering the West arm of Sidney inlet. Sidney inlet is about twelve miles long and is a land-locked arm of Clayoquot sound, with its entrance from the open ocean between the west side of Flores island and Sharp point, on Vancouver island.

The only means of transportation is afforded by the Canadian Pacific Railway steamer, which makes a weekly schedule from Victoria during the summer months and a ten days' schedule during the winter.

The mountains in which the *Indian Chief* group is located rise very abruptly from the shore-line to an elevation of about 2,000 feet within a distance of about 4,500 feet. The main mountain range is cut by two torrential streams within the boundaries of the property, the largest being known as Indian creek. This creek carried apparently a sufficient volume of water and has fall enough to furnish power to drive the machinery in the mill as well as the compressor and electric-light plants, but this water-power has not yet been developed.

GEOLOGY.

The prevailing rock formations in this vicinity are limestone, grey granite, granodiorite, and another igneous rock resembling gabbro. The two last-named rocks are found to occur as dykes cutting through the limestone, which is considerably metamorphosed, but not sufficiently so to have obliterated the original bedding-planes.

The limestone is bluish in colour, usually very hard and considerably silicified, so much so that pebbles of it are used in the tube-mill in the concentrating plant.

There appears to be a main contact between the grey granite and limestone, but the actual line of contact is not well defined. Apparently the line of main contact is exposed only at one point, which is at an elevation of about 1,300 feet above sea-level, where it was exposed by grading-work done on the trail from the beach to the mine-workings.

There are apparently two main igneous dykes lying nearly parallel to each other and about 800 feet apart, which appear to mark the boundaries of the mineralization along a general north-easterly strike. These dykes dip nearly vertical and appear to have intruded into the limestone before the mineralization occurred, but what, if any, influence they have exerted with regard to the formation of the ore-bodies is very difficult to determine. In addition to these so-called main dykes, there are others which occur as intrusions in the ore-bodies.

The limestone within the boundaries of mineralization is very much more metamorphosed than it is outside of those boundaries, where the original bedding-planes are quite well defined and dip at varying angles from 5 to about 40 degrees. There is evidence of considerable shearing action having occurred within the boundaries of mineralization, the dip of the shear-planes being generally nearly vertical. The limestone has been replaced to a very great extent by such contact-metamorphic minerals as garnet and epidote, with which are associated magnetite, bornite, chalcopyrite, and pyrite.

From the shores of Sidney inlet the prevailing rock formation exposed along the trail up the easterly slope of the mountain is grey granite. At an elevation of about 600 feet above sea-level there occurs an exposure of hard, bluish-coloured, metamorphosed, silicified limestone, but the exposure is hardly of sufficient extent to determine whether it is "in-place" or only a bed of immense boulders which have been carried down the mountain-side from the near summit. Above this exposure the grey granite again occurs, and there is no change until a point on the trail is reached at an elevation of about 1,300 feet, where a fairly well-defined contact is exposed between the granite and limestone, much of which is replaced by garnetite and epidote, with some magnetite, bornite, chalcopyrite, and pyrite. This character of rock formation is continuous to the summit of a steep bluff at an elevation of nearly 1,900 feet above sea-level, and forms the most prominent outcropping of an ore-body on the property.

The southerly side of this bluff apparently forms the boundary of mineralization in that direction. A torrential stream has washed out a deep gorge under that side of the bluff, through which the water rushes to the beach, where it flows into the West arm of Sidney inlet at the beach camp of the Tidewater Copper Company. Apparently the watercourse marks the plane of an important fault which has cut off all sign of mineralization to the south of it, but no detailed examination could be made because of the quantity of water in the gorge and slide-rock on the side.

Ore-deposits.

The general character of the ore-deposits in the *Indian Chief* group is that of replacement of the limestone in a contact-metamorphic zone, but where the ore-bodies have been formed at some distance from the actual line of main contact between grey granite and limestone.

The ore-deposits are unique, in a measure, as while they belong to the contact-metamorphic type, they also occur filling fissures in shear-zones in the metamorphosed limestone. There are at present developed two prominent deposits of low-grade copper ore known as the south and north ore-bodies. The outcroppings of these occurrences of ore are separated from each other by the summit of the mountain range and a distance of about 1,500 feet, but if the underground workings on the south ore-body are extended about 800 feet and an upraise made to the adit on the north ore-body, a connection would be established and the relationship between the two ore-bodies be determined.

The outcroppings on the south ore-body occur as a prominent bluff, the entire face of which for a distance of about 500 feet in a westerly direction and for about 250 feet in a northerly direction is an almost continuous outcropping of limestone, much of which has been altered to garnetite, associated with which occur magnetite, bornite, chalcopyrite, and pyrite.

The mineralized rock at the surface strikes in a north-westerly direction and dips at an angle of about 40 degrees towards the north-east. At one point an igneous dyke has been intruded into the ore-body, which strikes north-westerly and on the surface is about 4 feet wide. In the underground workings this dyke forms a so-called foot-wall dipping at about 40 degrees in conformity with the general dip of the metamorphosed limestone in the bluff. On the surface ore outcrops on both sides of this dyke, but in the workings no crosscut has been made through it to determine whether or not the same conditions found on the surface prevail underground. The strike of the dyke underground is N. 55° W. It has been followed in the No. 2 adit for about 240 feet to a point called by the miners "the junction," where a cross system of fissuring occurs carrying ore having a northerly strike. The course of the adit is changed at that point, and the last-mentioned fissuring has been followed by the drift-adit along the northerly strike to the present face of the No. 2 adit, about 300 feet beyond the point called "the junction."

At a point about 500 feet westerly from the portal of the No. 2 adit there is a big open-cut, from which evidently a considerable tonnage of ore has been quarried. There is also an adit known as No. 1 adit or tunnel which was driven about 170 feet in a north-westerly direction in country-rock along a joint-plane, which may be a fault-plane and connected with the fault already referred to, and appears to be the south-westerly boundary of the mineralization in the south ore-body. This joint-plane strikes north-west, stands vertical, and cuts the bedding-planes of the limestone, which is less metamorphosed on the south-westerly side of the fault or joint plane than on the north-west side.

The foot-wall of the zone of mineralization is well defined in the vicinity of the No. 1 adit, which has been driven in country-rock under ore, but the hanging-wall appears to have been carried off by erosion at that point, as the outcroppings of mineralization show on the surface at the summit of the garnetite bluff, which extends from the No. 1 adit to about the No. 2, a distance of about 500 feet.

At a level 100 feet below the No. 2 adit there is the No. 3 adit, which has been driven in country-rock its entire length, evidently in the foot-wall of the ore-body exposed in the No. 2 adit, as is shown by the dip of the ore-body in the winze which connects the two adits.

Towards the north from the portal of No. 2 adit the mineralized outcroppings show for a distance of about 500 feet around the slope of the main bluff referred to, and as far as the portal of the adit known as the "Bonthrone" adit, driven at an elevation of 96 feet above the No. 2 adit. The "Bonthrone" adit exposes magnetite with some chalcopyrite in a garnetite gangue for nearly its entire length, about 250 feet.

The ore-body exposed by the No. 2 adit has been proven to maintain continuity to the level of the "Bonthrone" adit, as an upraise has been made from the No. 2, which is all in low-grade copper ore. The continuity of the same ore-body has been proven below the No. 2 adit for 80 feet by a winze sunk connecting that adit with the No. 3 adit at 100 feet lower elevation, in which ore is continuous for a depth of 80 feet, where the body apparently dips away from the winze and has not been followed.

On the surface at the summit, between the south and north mine-workings, there are several outcroppings of copper minerals associated with garnetite and epidote. No systematic development or prospecting work has been done either on the surface or underground to determine the occurrence of ore-bodies related to these outcroppings, except at the extreme north-western boundary of mineralization, on the *Victor* claim, where an occurrence of chalcopyrite in altered limestone and garnetite occurs next to an intrusive igneous dyke. The dyke strikes N. 60° E. and dips very nearly vertical, but the mineralized material strikes N. 60° E. and dips about 5 degrees towards the south-east. The dyke and mineralized material are exposed on the surface at several points for a distance of nearly 100 feet below the level of an adit driven about 150 feet in length in low-grade copper ore, and apparently crosscutting the mineralized zone diagonally.

In addition to the crosscut adit, there have been several large open-cuts made in the face of the bluff in which the adit is driven, from which high-grade chalcopyrite has been mined, several tons of it which was packed to the beach on horses about fifteen years ago and shipped yielding about 17 per cent. in copper in addition to low gold and silver values.

The south ore-body at the time of the inspection was exposed in the No. 2 adit for a length of about 480 feet, with a maximum width of 40 feet at the No. 3 or junction stope to a minimum width of about 5 feet in some other parts of the adit, also to a height of about 100 feet to the "Bonthrone" adit and a depth of 80 feet down the winze that connects the Nos. 2 and 3 adits.

Unfortunately, the development-work underground has not been sufficient in extent to determine further continuity of the ore-body in length, width, or to a deeper level. There are possibilities that the mineralized zone may occupy an area having its dimensions reaching from the igneous dyke on the *Victor* claim to the igneous dyke near the entrance of the No. 2 adit, or a distance of about 1,400 feet from north-west to south-east by about 500 feet from south-west to north-east, and that within that zone there occur bodies of copper minerals which occupy fissures in shear-zones in the altered limestone of sufficiently high grade to yield commercial values after treatment by concentration by flotation.

Until such further development-work is done it is impossible to estimate with any degree of accuracy the tonnage of available ore occurring on the property. There do not appear to be any well-defined walls, but merely a verging from vein material carrying low values in copper, gold, and silver to barren rock similar to the gangue material associated with the ore, and this change is usually erratic and irregular.

DEVELOPMENT-WORK.

The development-work on the *Indian Chief* group consists of several open-cuts, a series of adits, winzes, upraises, and slopes, as follows:—

On the *Tinnecanum* claim, at an elevation of 1,737 feet above sea-level, the No. 1 adit is driven 170 feet in a north-westerly direction, with a branch to right at a point 40 feet from the face, 20 feet long, and an upraise at a point 80 feet from the portal about 45 feet high. Several large open-cuts have been made at points near the portal of the adit in a north-easterly direction from it.

On the *Scotlet* claim, which adjoins the *Tinnecanum* on the east, at an elevation of 1,610 feet above sea-level, the bluff adit has been driven 20 feet in a northerly direction at an elevation of 1,550 feet; the powder adit has been driven 15 feet at the same elevation; at a point 160 feet east of the powder adit the old No. 2 adit has been driven 50 feet in a northerly direction, where it is intersected by the main No. 2 adit, the portal of which is at the same elevation and 100 feet farther to the east. The main No. 2 adit is 575 feet in length, with a winze sunk 88 feet deep to the No. 3 adit at a point 90 feet from the portal. There are four stopes opened off the No. 2 adit of the following dimensions: No. 1 stope is 35 feet long, of an average width of about 20 feet; No. 2 stope is about 40 feet long, of an average width of about 20 feet; No. 3 stope is about 65 feet long, of an average width of about 40 feet; and No. 4 stope is about 65 feet long, of an

average width of about 20 feet. About 100 feet north of the portal of the No. 2 adit, at the same elevation, there is an intermediate adit which has been driven 30 feet in a westerly direction; the No. 3 adit is 290 feet long, at an elevation of 1,462 feet above sea-level, with its portal 200 feet north-easterly from the portal of the main No. 2 adit and driven in a westerly direction; the "Bonthrone" adit is 245 feet long in a general south-westerly direction, at an elevation of 1,650 feet, with its portal 440 feet in a north-westerly direction from the portal of No. 3 adit. This adit is connected with the No. 2 adit by a raise on the foot-wall of the ore-body from that adit about 100 feet high, made at a point about 150 feet from the face of the No. 2, and making the connection at a point about 160 feet from the portal of the "Bonthrone" adit.

On the *Victor Fraction* claim, which adjoins the *Scotlet* claim on the north, an adit has been driven 140 feet in a north-westerly direction, at an elevation of about 1,650 feet, and construction of a surface tramway started to connect the portal of this adit with the upper terminal of the aerial tramway at the portal of the No. 2 adit. The adit on the *Victor Fraction* claim is driven in country-rock on the southerly slope of the mountain, with the intention of making a connection with the workings on the *Victor* claim on the northerly slope of the same mountain.

On the *Victor* mineral claim, adjoining the *Victor Fraction* claim on the north, there is an adit 160 feet long, at an elevation of about 1,730 feet and about 140 feet below the summit of the mountain. This adit is driven in a south-easterly direction. At about the same elevation and a few feet to the west of the adit there are large open-cuts and two short adits—one about 50 feet long, the other about 20 feet long. About 90 feet lower down the mountain-side and a short distance west of the adits there is an open-cut known as the "Robinson" cut, a short adit, and a shaft; the shaft being full of water could not be examined.

Equipment at the Mine.

The mine-workings are connected with the concentrating-mill at the beach by an aerial tramway 2,500 feet in length, with a capacity to transport about 28 tons of ore each hour. The upper terminal of the tramway is at an elevation of 1,460 feet above sea-level, while the top of the ore-bin is about 100 feet higher, or on the same level as the No. 2 adit, which is the main haulage-way and connected with the bin by a surface tramway.

A well-equipped blacksmith-shop is located at the entrance to the No. 2 adit. Air-drills are used in the mine, the air being delivered through a 4-inch pipe from the compressor, which is installed in the concentrating-mill on the beach.

The mining camp consists of substantially built bunk and cook houses, each two stories high, capable of accommodating about sixty men. There is a station on the aerial tramway on a level with the mining camp for the purpose of unloading supplies.

Equipment at the Beach.

As the concentrating-mill of the Tidewater Copper Company at Sidney inlet is the first mill erected on Vancouver island for treating low-grade copper ores by the "flotation" process, the writer deems it advisable to describe the plant fully, so as to give an intelligent idea of it.

The concentrating-mill is operated under the superintendence of Peter E. Peterson, who was formerly with the Butte and Superior Mining Company, of Butte, Montana.

Starting at the lower aerial tramway terminal from which the ore is delivered into the ore-bin at the top of the mill, the equipment on each floor as the descent is made is as follows: The ore, which carries an average of about 1.5 per cent. copper and low-grade gold and silver values, is delivered on to a 1-inch grizzly, the oversize from which passes into a 10- x 20-inch crusher of the Blake type, and the undersize directly into a bin which is subdivided into two compartments, so that the undersize is fed directly into the tube-mill. The ore that passes through the crusher, where it is crushed small enough to pass through a 1½-inch ring, is stored in a compartment of the bin that feeds directly into the ball-mill. The total capacity of the ore-bin is about 500 tons. The ball and tube mills are on a floor about 20 feet lower than the grizzly floor.

The ball-mill is of the Morse Bros. pattern, 5 x 4 feet in dimension, and the tube-mill is of the Colorado Iron Works pattern, 5 x 22 feet in dimension. The ore contains many cherty pebbles of sufficient hardness for use for grinding in the tube-mill, instead of using imported flint pebbles, and there are so many of these that there are about 800 lb. in excess every hour

that pass through a trommel from the tube-mill. The trommel is fixed on to the discharge of the tube-mill and works automatically. The pebbles are valueless, as assays show, and consequently those that pass over the trommel are discarded as waste.

The discharge from the ball-mill passes into the tube-mill, and is added to the fine ore that is fed direct into the tube-mill after passing through the grizzly as undersize.

The undersize that passes through a 4-mesh screen in the trommel at the discharge end of the tube-mill passes into a home-made screw classifier, from which the oversize is returned to the feed end of the tube-mill, and the undersize, which will pass through an 80-mesh screen, passes into two flotation-machines, each having six cells, with a capacity of about 100 tons a day.

The concentrates from the cells are carried through launders into a Dorr thickener-tank 14 feet in diameter by 8 feet deep, in which the moisture is reduced to 60 per cent. From the thickener the concentrates pass on to a Portland filter, where the excess of water is removed, and it is expected to produce a concentrate carrying only 12 per cent. of moisture.

The oil for flotation is fed into the tube-mill with the ore. The oil used is a mixture of coal-tar and creosote, and about 3 lb. of oil is used to 1 ton of feed.

The concentrates from the cells carry about 20 per cent. of copper, while the tails carry about 0.25 per cent. of copper, but with good practice can be brought down to almost a trace.

The power at present employed in the mill is steam, which is supplied by a 300-horse-power boiler to a 180-horse-power engine which runs the ball and tube mills, and a 100-horse-power engine which runs the flotation-machines, thickener, filter, vacuum-pump, and dynamo for electric lights. There is also a separate boiler and 80-horse-power engine to run the compressor plant for the mine.

The concentrating-mill was first started up the beginning of December, 1917, and operated for twenty days previous to Christmas, when it was closed down because of lack of fuel, but started up again on January 1st.

It is the intention of the management to develop water-power in the near future from Indian creek, which empties into Sidney inlet about half a mile north of the mill, as well as from a smaller stream which empties into Sidney inlet at the beach camp. It is expected that 500 horse-power can be developed from the two sources. Indian creek will furnish water with about 320 feet of head, and the small creek with about 200 feet of head. The pipe-line from the Indian Creek head will be about 4,600 feet long to the mill, but that from the smaller creek will be considerably shorter.

The first shipment of concentrates was made about the middle of January to the Tacoma Smelting Company, with which Mr. Silverman has made a contract for the treatment.

The concentrating-mill has a present capacity to handle about 100 tons of ore a day, but by the addition of another flotation-machine with larger cells the capacity can be increased to over 200 tons of ore a day. The installation of water-power will decrease the costs of operating about $100 a day.

QUATSINO MINING DIVISION.

Early in 1917 it appeared as though there was to be phenomenal activity in the mining industry in the Quatsino Mining Division, because the development-work done by S. I. Silverman and N. S. Clark, who had a bond on the *Yreka* group of mineral claims in the fall of 1916, had resulted so satisfactorily that a new wharf, bunkers, and aerial tramway were erected in the spring of 1917 and a shipment of about 900 tons of copper ore was made. This ore proved to be of too low grade to warrant making regular shipments of the run-of-mine ore, and demonstrated that a concentrating plant was necessary to produce satisfactory results. Later, because the payments on the bond were not made when due, the owners of the property, Andrew J. Davis, of Butte, and James Breen, of Spokane, cancelled the bond, took possession of the property, and closed down operations.

Active operations were carried on during the past year on the *Old Sport* group of mineral claims, on Elk lake, by the Coast Copper Company, and prospecting with diamond-drills was carried on for most of the year on the Teta river, on the *Quatsino King* group of mineral claims, by the Granby Consolidated Mining, Smelting, and Power Company. In addition to these operations, the usual assessment-work was done on several mineral claims in the Quatsino Mining Division, but none were sufficiently developed to become producers.

Quatsino King Group.

This group of mineral claims contains the *Quatsino King, Paramount, Hillside, Alexander*, and *Eros* Crown-granted mineral claims, owned by the Teta River Mining Company, of Quatsino, but bonded to the Granby Consolidated Mining, Smelting, and Power Company. The group is on the Teta river, which flows into the South-east arm of Quatsino sound on the west side. There is on this group of claims an occurrence of an extensive body of highly siliceous agglomerate, made up mostly of quartz and angular pieces of a bluish rock, apparently a metamorphosed rock. The mass is cemented together, very much iron-stained, and occasionally carries impregnations of iron pyrites and a little chalcopyrite. As there are no walls defined, it is only possible to conjecture as to the strike of the mass, which appears to be towards the north-west, and the dip of the cleavage-planes in the body seems to be at an angle of about 70 degrees to the north-east. The property was originally located as a free-gold proposition, and was bonded by the Granby Company as a source of siliceous flux for the smelters at Anyox.

Development-work.—In addition to three diamond-drill holes which had been bored up to the time of the examination on October 15th, 1917, the original locators have driven four adits into the siliceous mass. The longest of these is about 250 feet and the shortest is about 20 feet. All of the adits except the last mentioned appear to be drifting along the strike of the body of siliceous material, while the shortest is crosscutting it. No samples were taken as it was not practicable to make a systematic sampling, and any other sampling would be misleading.

Old Sport Group.

This group was very fully described in the Report of the Minister of Mines for 1916, and it is not necessary to repeat that report here, so the description will be confined to the development-work done since the Coast Copper Company acquired the property in September, 1916.

Development-work.—On the main adit level the drift towards the north had been continued 100 feet beyond the face on September 1st, 1916. A short distance beyond the face of the drift at that date a diorite dyke occurs which was driven through to ore, and the ore, which varied in value from 1.5 to 4 per cent. in copper, was crosscut for 35 feet to the west. From there the drift was continued for 80 feet, and near the face a crosscut is made to the east in ore averaging about 1.3 per cent. This crosscut is about 10 feet long and there is no foot-wall yet exposed.

An incline winze is sunk to a depth of about 525 feet from the level of the main adit at the point where the ore-body was intersected by the adit about 400 feet from the portal, and 90 feet from the bottom of the winze a station is cut, and drifting in both directions from the station was in progress when the writer saw the work.

The winze is sunk at an angle of about 30 degrees, and for 60 feet from the adit level the vein was followed on the foot-wall, and the ore averaged between 2 and 3 per cent. in copper, with from 80 cents to $1 a ton in gold and traces of silver. Below 60 feet a dyke occurs 20 feet wide, through which the winze is sunk into low-grade ore which continued down to 260 feet, where a fault is exposed that threw the foot-wall of the vein down an undetermined distance. The winze is sunk through the fault, and at 286 feet depth mineral is exposed, but no foot-wall is exposed until 300 feet in depth is reached, where the regular diorite foot-wall occurs. From this point the vein is regular, carrying magnetite and chalcopyrite in a garnetite gangue, and continues fairly regular to the bottom of the winze.

At 353 feet below the adit level a band of limestone is exposed in the roof of the winze, associated with garnetite and crushed diorite and carrying impregnations of chalcopyrite. At 373 feet below the adit level the vein dips at a much steeper angle, and the roof of the winze is still in limestone, so that it would appear as though the vein is a typical contact-metamorphic replacement deposit at depth, while on the surface it appears to be filling a fissure in a shear-zone in diorite, and there is no limestone in evidence for a considerable distance from the ore-body.

Since the writer's visit in 1916 a water-power plant has been developed from Canyon creek, which furnishes at present, with a 350-foot head, 50 horse-power, but can be developed to furnish about 425 horse-power at low water. The flume is 8,000 feet long to a pipe-line 900 feet long.

A compressor plant for two drills is installed at the camp on Elk lake, and the air carried to the mine-workings through a pipe-line; also an electric-light plant, the dynamo of which is run by a 6-inch Pelton motor. At the mine there is a 7- x 9-inch double-cylinder friction-hoist run by compressed air which hoists a 1-ton skip. Also a Cameron sinking-pump, capacity 65 gallons a minute, and an Allis Chalmers feed-pump, capacity about 35 gallons a minute.

A survey has been made for a railway to connect the mine with the South-east arm of Quatsino sound, a distance of sixteen miles.

NANAIMO MINING DIVISION.

Metalliferous mining in the Nanaimo Mining Division at the present time is chiefly confined to Texada and Quadra islands, but there was also considerable activity in prospecting and development during 1917 in the vicinity of Powell lake and Fanny bay, on the mainland; also on the Little Campbell river, Hardy Bay, and Adams river, on Vancouver island. The metalliferous minerals found in the Nanaimo Mining Division include copper, silver, gold, lead, zinc, and iron, and the most extensively developed section of this Mining Division is the northern part of Texada island. Several years ago it appeared as though the mountains bordering Knight and Loughborough inlets and Phillips and Frederick arms, on the mainland, would develop into the most productive portion of the Mining Division, but since the closing-down of the *Dorotha Morton*, *Blue Bell*, *Douglas Pine*, and other promising properties that section has become practically depopulated so far as prospectors and mining operators are concerned.

In the Report of the Minister of Mines for 1916 the writer described most of the metalliferous-mining prospects in the Nanaimo Mining Division, consequently does not deem it necessary to repeat those descriptions in the present report, except in cases where new development-work has been carried on.

Florence.

This mineral claim is located about three-quarters of a mile from the shore of Malaspina strait, at a point locally called "Dinner rock," but shown on the map as "Hurtedo point," about five miles south-east of the settlement of Lund, a port of call for several of the steamers that ply along the mainland coast. The mineral claim is owned by McNaughton Bros., of 2104 Semlin drive, Vancouver.

Geology.—The prevailing rock formations in the vicinity are an altered greenish metamorphic rock with porphyritic structure, granite, and limestone. There is a well-defined contact between the granite and limestone, with a zone of varying width lying between those rocks, from a few feet to 60 feet wide, made up of such contact-metamorphic minerals as epidote, garnetite, hornblende, calcite, and quartz, through which are disseminated particles of iron pyrite, chalcopyrite, zinc-blende, and some copper carbonates. The strike of the contact-metamorphic zone is north-westerly, but the dip is not determined, because there has not been sufficient work done at any one point, nor are there any natural exposures from which the angle can be measured.

Characteristics of Ore-body.—The ore-body on the *Florence* mineral claim occurs in a contact-metamorphic zone, with limestone on the south-west side and granite on the north-east. The zone appears to be quite extensive and in some places is about 60 feet wide, and can be traced along its strike by several outcroppings for a distance of about 300 feet to the south-east from an open-cut about three-quarters of a mile from the shore, and at an elevation of about 300 feet above sea-level. Apparently the zone is continuous towards the north-west (mag.) on to the *Zone* mineral claim, which adjoins the *Florence* on the north-west side, but the continuity is not proven, as no work has been done and the surface is covered by fallen timber and brush.

The open-cut on the *Florence* claim referred to exposes an occurrence of epidote, with which is mixed some copper carbonates and grains of chalcopyrite. At this point the contact-metamorphic zone is about 60 feet wide as exposed by the open-cut. No samples were taken from this cut because it was not deep enough to reach solid material and exposed merely decomposed epidote, with apparently not sufficient copper minerals mixed with the epidote to warrant the material being considered as of commercial value.

About 250 feet south-east from the open-cut just mentioned there is another open-cut in which is exposed an outcropping, about 20 feet wide, of epidote and garnetite mineralized with iron pyrite, zinc-blende, and some impregnations of chalcopyrite, with the blende occurring fairly solid for a width of about 18 inches in the floor of the open-cut. A sample representing about an average across 18 inches of the solid ore at one point in the floor of the open cut assayed: Gold, trace; silver, trace; copper, 0.6 per cent.; zinc, 33.7 per cent.

At a third point about 75 feet south-east (mag.) from the second open-cut referred to there is a prospect-pit about 6 feet deep by about 8 feet square, in which is exposed some chalcopyrite occurring as impregnations in epidote and garnetite across the full width of the pit. A grab sample from the dump beside the pit assayed: Gold, trace; silver, 0.8 oz.; copper, 3.1 per cent. This sample was not assayed for zinc because little, if any, blende showed in the ore.

Sproat Lake, Vancouver Island.

Mount Arrowsmith, Vancouver Island.

There is a shaft on the *Florence* claim near the other workings described in this report, but as it was full of water it was not examined.

As neither of the McNaughton Bros. could be reached by the writer, who was informed at their home in Vancouver that both were in a logging camp on Jervis inlet, he secured the services of Sam Wade, a pioneer prospector and owner of the *Zone* mineral claim, to guide him to the workings on the *Florence* mineral claim, which adjoins the *Zone* on the south-east.

Zone. This mineral claim is about one mile from the shore of Malaspina strait and adjoins the *Florence* (just described) on the north-west. The claim is owned by Sam Wade, post-office address Lund, who resides on the property.

Geology.—Apparently the contact-metamorphic zone which occurs on the *Florence* mineral claim extends through a portion of the *Zone* claim, but the limestone is cut off near the south-east end line of that claim by a greenish metamorphic rock with porphyritic structure which continues in contact with granite towards the north-west. The greenish-coloured rock which is called greenstone, is impregnated with grains of iron pyrite, a little chalcopyrite, very much epidote, some garnetite, and hornblende.

Characteristics of Ore-body.—At the contact between the greenstone, which is very quartzose and badly altered, and granite a body of mineralized material is exposed in an open-cut made across the formation about 75 feet long by about 6 feet deep at the deepest part, also a pit at the north-easterly end of the open-cut 12 feet long by 8 feet wide by 4 feet deep. The mineralization is made up of iron pyrite, much epidote, some garnetite, and hornblende.

A grab sample of the mineralized rock was taken, but an assay failed to show any values beyond traces of gold, silver, and copper. Although these results are disappointing, there are sufficient indications on the mineral claim to warrant some more prospecting.

Vanbert. This mineral claim is on Copper creek, which empties into Powell lake on the northerly side about four or five miles from the outlet, and was examined on July 12th, 1917. The property is owned by John Shearman and A. Lambert, post-office address Powell River.

Geology.—The prevailing rock formation resembles diorite belonging to the Coast Range intrusive, which has been somewhat sheared and fissured. One prominent fissure shows a maximum width of about 20 feet, filled with quartz and breccia in which occur impregnations of galena, chalcopyrite, and iron pyrite.

Characteristics of Ore-body.—The quartz vein, on which some development-work has been done, strikes south-westerly and dips at an angle of 75 degrees to the north-west. The length of the fissure is undetermined, but its maximum width is about 20 feet, with no well-defined hanging-wall yet exposed in the workings. The foot-wall is well defined near the face of a short adit driven in the steep hillside overlooking Copper creek. The ore-body is apparently a typical concentrating proposition, and there is ample water for such treatment in Copper creek, providing the creek is dammed and a reservoir thus formed. The development-work consists of a wide open-cut 9 feet long which forms the approach to a short adit which partly crosscuts the quartz vein.

Two samples were taken by the writer. No. 1, a grab from the dump at the portal of the adit, assayed: Gold, 0.02 oz.; silver, 1.8 oz.; copper, 1.1 per cent. No. 2, a grab from a dump of sorted ore ready for shipment, assayed: Gold, 0.2 oz.; silver, 9.8 oz.; copper, 1.9 per cent.

Ophir. This mineral claim is on the opposite side of Copper creek from the *Vanbert* mineral claim, at a somewhat higher elevation, and is owned by John Shearman, of Powell River.

Geology.—The rock formation on the *Ophir* claim is very similar to that on the *Vanbert* claim, but the country-rock is somewhat more sheared and fissured, with the line of strike of the fissuring nearly parallel with the strike on the *Vanbert* claim, but the dip is at a much flatter angle and towards the south-east instead of towards the north-west, as is the case on the *Vanbert* claim. There appears to have been considerable disturbance of the country-rock on a part of the *Ophir* claim, which has changed the course of the fissuring near the face of the main workings to south-easterly instead of south-west, as on the *Vanbert* mineral claim, while at the face of the same workings the direction of the strike of the fissuring is south-westerly or parallel with that on the *Vanbert* claim.

Characteristics of the Ore-body.—The ore on the *Ophir* claim occurs in a quartz vein, filling a wide fissure. The mineralization consists of impregnations of grains of galena, chalcopyrite,

and iron pyrite in a gangue composed of quartz and brecciated rock. The ore-body has been exposed in an open-cut about 20 feet long which crosscuts the quartz vein, and is made for an approach to a proposed adit which will drift on the vein. The width of ledge material is not fully exposed, but there is about 15 feet in width of mineralized ledge material shown by the open-cut. A grab sample taken from a dump of sorted ore assayed: Gold, 0.02 oz.; silver, 1.6 oz.; copper, 1.8 per cent.

The occurrence of ore on the *Ophir* claim appears to be a typical concentrating proposition similar to the occurrences on the *Vanbert* mineral claim.

TEXADA ISLAND.

Marble Bay. This mine was very fully described by the writer in the Report of the Minister of Mines for 1916, pages 351 and 352, so that it is unnecessary to repeat that description. The development-work carried on by the owners, the Tacoma Steel Company, during the past year has been confined chiefly to diamond-drilling below the 1,500-foot level, to determine the extent at depth of the ore-body which is being stoped between the 1,400- and 1,500-foot levels, and called the "1,503" stope, from which about 12,000 tons of copper-gold ore has been shipped during 1917.

The workings on the 1,500-foot level in the *Marble Bay* mine are the deepest mine-workings reached by a shaft in the Western Mineral Survey District, and it is very gratifying to the owners, as well as interesting and important to those interested in the mineral industry in the Province, to realize that in this mine not only has it been demonstrated that the ore-deposits maintain their continuity to such a depth, and to an undetermined depth below, as is shown by drill-cores, but that the values carried by the ore are also maintained, as is demonstrated by the shipments made in 1917.

The "1,503" stope is 60 feet in diameter and has been carried to an average height of about 30 feet. This stope carries considerable garnetite, which is the gangue material associated with the ore.

Van Anda Co. The property owned by the Van Anda Copper and Gold Company consists of the *Copper Queen*, *Cornell*, *Little Billy*, and *Loyal* mines, situated on the north-east coast of Texada island, which were fully described by the writer in the Report of the Minister of Mines for 1916. During 1917 these mines were practically idle, but in the autumn it is reported that they were leased to a Seattle syndicate, which, under the management of P. Stoess, M.E., installed a compressor plant and boiler on the *Loyal* and renewed the gallows-frame over the old shaft which was sunk several years ago, preparatory to beginning active operations and carrying on further development-work than has heretofore been done.

At the *Cornell* the old hoist is being repaired under the management of J. Watson, of Seattle, and it is understood that preparations are being made to drive a long crosscut from the lowest level on the *Little Billy* to traverse the ground under the *Cornell* and *Copper Queen* mines.

The old dump at the *Cornell* was leased by a Vancouver syndicate during the autumn of 1917, and a Faust jig and concentrator were installed to treat the waste dumps, which have accumulated during the several years that the mine was operated.

Retriever. This mineral claim, which is on Surprise mountain and owned by Wm. H. Lee and Wm. McDonald, of Vananda, was fully described by the writer in the Report of the Minister of Mines for 1916, and during 1917 it was bonded by B. F. Raymond and associates, of Puyallup, Wash., who have been carrying on extensive underground development-work, as well as having built a wharf, bunkers at the beach and at the mine-workings, also an aerial tramway, 1,850 feet in length to connect the bunkers preparatory to shipping.

The development underground is represented by an adit 350 feet in length, which crosscuts the formation and intersects the two fissure-veins that occur on the property. The adit is connected with the shafts that were sunk on the two veins some years since by upraising from the adit level to the bottom of each shaft, a distance of about 25 feet in each case, and a station has been cut at the point where the adit intersects the shaft on the silver-lead vein, preparatory to continuing to sink on that vein.

Good Hope. This mineral claim, which is on the south-side of Raven bay, on the east coast of Texada island, is owned by Harry Wolburn, of Vananda. This claim was examined by the writer on July 8th, 1917. It is about 250 feet from the

coast and 115 feet elevation. The country-rock is porphyrite which has been cut by some quartz diorite dykes.

A lens of magnetite, which apparently occupies a fissure in the porphyrite, is exposed by an open-cut 120 feet long by about 15 feet in average width. There is a small percentage of chalcopyrite and iron pyrite associated with the magnetite, but whether the ore carries sufficient copper content to warrant working the property as a copper proposition by treating the ore by concentration is a problem that requires solution.

McConnell, in his Memoir No. 58 on Texada island, published by the Geological Survey, evidently considered this deposit as valuable for the iron ore, because he says: "The magnetite contains some pyrite and a small percentage of chalcopyrite, but is freer from impurities than most of the lenses in the vicinity."

Quadra Island, Valdes Group of Islands.

The activity in mining on Quadra island has not been as pronounced during 1917 as was the case during 1916, when prospecting was being carried on by diamond-drilling on the mineral claims owned by the Valdes Island Copper Company, Limited, of Victoria. Early in 1917 a contract was made between that company and Jones & Rant, of Victoria, by which the latter shipped ore from the *Ingersoll* and *Copperopolis* mineral claims, owned by the company, and continued development-work until late in the summer, when the contract expired and the mining company resumed development-work on its own account. A good wagon-road was constructed by Jones & Rant from the beach at Gowland harbour to the mine-workings early in the year, and regular shipments of copper ore were made to the Ladysmith smelter during the period of their contract.

Santa Anna Group.

This group of mineral claims, which was fully described by the writer in the Report of the Minister of Mines for 1916, was bonded late last fall by John McConville and partners to H. E. Carleton, Martin Welch, and H. J. Tetter, of Vancouver, who, it is reported, will continue the development-work that was being done by the owners, and place the property on the list of producers during 1918.

Cameron Lake District.

In the Report of the Minister of Mines for 1916 the writer described the *Independent* group of mineral claims, situated near the head of Englishman river, about eight miles from the foot of Cameron lake. As there was but little activity in that section during the past year, it was not revisited by the writer when he was in the neighbourhood, but a group of two mineral claims in the mountains near the foot of Cameron lake was examined on January 9th, 1918.

Copper King Group.

This group contains two mineral claims, the *Copper King* and *Cameron*, owned by Thomas Kitchin and L. Shepherd, of Nanaimo. This property is one of the oldest lode locations in the Nanaimo Mining Division, and most of the work was done prior to 1901; but since then but little attention has been paid to the claims until the recent abnormal demand for copper has revived interest in the property, especially owing to its accessibility because of the building of the Alberni extension of the Esquimalt & Nanaimo Railway the track of which at Cameron Lake Station is only about one mile and a half from the portal of the lower adit on the *Copper King* mineral claim, and about 1,000 feet lower elevation, so that an aerial tramway could be easily constructed to connect the mine-workings with the railway.

Geology.—The prevailing rocks in the Cameron Lake district are the Vancouver volcanics, with some schists included representative of the Sicker schists. The volcanics are much metamorphosed and in places considerably sheared and fissured. The fissuring is noticeable in and along the sides of a ravine on the *Copper King* claim, where two adits have been driven with the purpose of intersecting an ore-body which outcrops about 100 feet higher elevation than the level of the upper adit.

Characteristics of the Ore-body.—An occurrence of copper-bearing ore occurs on a steep bluff on the side of a deep ravine, but was too much covered with snow when the writer made his examination to be thoroughly examined. The mineralization is chiefly chalcopyrite associated with iron pyrite in a siliceous gangue. The strike is apparently towards the north-east and the dip is fairly steep to the north-west, but the extent of the mineralization is problematical. Underground in one place it appears to have a maximum width of about 20 feet.

Development-work.—The development-work consists of a shallow shaft on the outcroppings and two crosscut adits. The upper adit is about 100 feet below the outcroppings; it is 80 feet long to the point where ore is exposed on the hanging-wall; there the course of the adit is changed and cuts the ore-body diagonally to the foot-wall, a distance of 56 feet, and is continued for a further distance of 40 feet in lean ground. Where the foot-wall is exposed a drift has been driven back along it towards the main adit, a distance of about 30 feet, and a short crosscut made into the foot-wall. Two shallow winzes are sunk from the main adit, one near the centre of the ore-body, the other at the point where the foot-wall is exposed (both of these were full of water at the time the examination was made by the writer, so could not be examined). The lower adit is about 100 feet lower elevation than the upper one, just referred to, and is about 300 feet long, driven in country-rock except for about 40 feet, where ledge material consisting of quartz stringers in a hard blue gangue rock is exposed.

On the dump at the portal of the upper adit there are several tons of copper ore, mostly chalcopyrite, some of which is evidently of good grade, but no sample was taken because the dump has been sorted over several times, as the writer was informed by T. McBey, of Cameron Lake, who acted as guide. The ore-body exposed in the diagonal crosscut in the adit is a concentrating proposition, unless, because of the siliceous character of the ledge material, it might be found profitable to mine it for flux for copper smelters.

Nanaimo Coalfield.

Earlier in this report reference is made to the coal-mining industry in the Nanaimo Mining Division, on Vancouver island, and to the history that was made in this industry during 1917. The reports made annually by the Mine Inspectors, which are included in the Report of the Minister of Mines, give full particulars with regard to the operations at the various working collieries, and were it not for the preparatory work that was done in 1917 in what may be termed new fields, no further reference would be made to the industry by the writer in this report, but under the circumstances the following brief description of the preparatory work is warranted:—

Granby Co.

The Granby Consolidated Mining, Smelting, and Power Company entered the Nanaimo coalfield early in 1917 by beginning operations with diamond-drill outfits and boring in the Newcastle formation, which contains the Douglas coal-seam, on Haslam creek, near Cassidy Siding, on the Esquimalt & Nanaimo Railway. The places selected for boreholes are about one mile and a half westerly from the junction of Haslam creek with the Nanaimo river on the west side of the Esquimalt & Nanaimo Railway track, near where, according to Clapp's geological maps, there are coal-outcroppings belonging to the Douglas seam, which is the upper seam in the Nanaimo series.

In Clapp's report, "Geology of the Nanaimo Map Area," in Memoir No. 51, Geological Survey of Canada, he says, with regard to the section of the coalfield where the Granby Company is working: "The Douglas coal-seam occurs in the Newcastle formation about 25 to 100 feet above the Newcastle seam, and from 50 to perhaps 250 feet below the top of the formation. The seam is well developed from northern Newcastle island to south of Nanaimo river, the outcrop of the seam crossing the river near the Esquimalt & Nanaimo Railway bridge at Cassidy."

Up to the present time the Granby Company has been doing preparatory work by clearing about 60 acres of land, including the site selected for the mine-workings. On this land the company is erecting a sawmill, buildings for sleeping and living accommodations of the miners and other employees, offices for the staff, powder-magazine, and several cottages similar to those occupied by miners with families at Anyox, where the company's Hidden Creek copper-mine and smelter are located. A water system has been installed by erecting two tanks, each with a capacity of 50,000 gallons, on the ridge east from the clearing, where the elevation is about 150 feet higher than the cleared land and the pressure is 60 lb. to the square inch. The water to supply this system will be pumped from the Nanaimo river.

A spur railway-track three-quarters of a mile long has been built to connect the mine-workings with the Esquimalt & Nanaimo Railway at Cassidy Siding, and there has also been constructed a new wagon-road from the old road that followed up Haslam creek and passed under the railway-track to connect Bevan's sawmill with the main road to Nanaimo or Ladysmith.

The construction-work so far done has been by contract with the Taylor Engineering Company, of Vancouver, and the diamond-drilling has been by contract with Boyle Bros., of Spokane.

Nanoose Bay District.

Nanoose Co.

The Nanoose Colliery Company, Limited, was promoted and organized by John Grant, of Nanaimo, who was also the organizer of the Vancouver and Nanaimo Coal Mining Company, which opened up the *Jingle Pot* mine some years ago. The colliery of the Nanoose Colliery Company is partly located on some foreshore leases acquired by Mr. Grant near the entrance to Nanoose bay, but the property owned by the company includes the Jack and Hinchman Estates in addition to the leases.

In Clapp's report on the Nanaimo coalfield he has not included this portion of the field, which is situated about ten miles north-westerly from the town of Nanaimo, and is the farthest point in that direction where a workable coal-seam belonging to the Nanaimo series is being mined.

In this part of the Nanaimo coalfield the prevailing rocks are those near the base of the series, and the two upper coal-seams (the Douglas and Newcastle) are lacking, and the Wellington or the lowest of the three Nanaimo seams is the only one remaining. This seam is exposed at a vertical depth of 129 feet below the beach where the shaft is sunk. The dip is quite flat, averaging only about 10 degrees to the N. 23° E. (mag.). The shaft was started in July, 1916, and the mine has been producing a limited quantity of coal since then.

To the south of the shaft the coal has been mined, and the work being carried on at present is driving a slope on the dip of the coal under the water in Nanoose bay. The slope on March 23rd, 1918, when the writer examined the mine, was 630 feet in length, and according to the information given by John Johns, the mine manager, has 143 feet of solid rock above it at that point. No attempt has yet been made to drive entries off from the slope.

The coal in the seam occurs with a variable width of rock as parting between the upper coal, about an average of 10 inches thick, and the lower coal, which averages about 22 inches thick. The maximum thickness of the rock-parting is about 7 feet, the average being about 3 feet, but at the face of the slope when the writer saw it the rock had pinched down to a few inches thick, and is lacking for about 12 feet on the east side of the slope, where the coal had widened out to about 9 feet of clean coal.

The coal in this colliery occurs underlying a conglomerate roof and rests on a sandstone floor, presumably the East Wellington sandstone as classified by Clapp. The roof is especially good and solid.

VICTORIA MINING DIVISION.

There has been considerable activity in the Victoria Mining Division during 1917, but this has been confined to the East Sooke, Jordan River, and Cowichan Lake districts, in each of which continuous operations have been carried on in developing the ore-bodies to determine their extent. Regular shipments of copper ore have been made during the past year from only the *Blue Grouse* and *Sunnyside* groups, on Cowichan lake, but some shipments have been also made from the *Margaret* and *Willow Grouse* groups, at East Sooke.

There has been shipped a total tonnage of approximately 2,000 tons of copper ore of good grade from the properties mentioned during the past year. At the same time there has been more prospecting carried on in the Division than has been the case for some years back. The sections that have apparently been the most attractive to the prospectors are the neighbourhood of Duncan, Saltspring island, East Sooke peninsula, the Cowichan Lake district, and the mountains adjacent to the Jordan river.

In the Report of the Minister of Mines for 1916 most of the workings on the mineral claims in the groups were described, but, as there has been so much new work done since that report was made, it is deemed advisable to again describe the properties fully in the present report, especially when the important results that have been obtained from the further development-work is considered.

East Sooke District.

Willow Grouse Group.

This group contains the *Golden Thrush*, *Willow Grouse*, *Willow Grouse Fraction*, *Blue Bird*, *Donaldson*, *Jack*, *Sidney*, and *Sidney Fraction* claims, on the north-west slope of Mount Maguire, about twenty-five miles by wagon-road or water from the city of Victoria, and about 3,000 feet from a well-sheltered harbour near the entrance to Sooke harbour. The property is owned by H. B. Thomson and associates, of Victoria, but is at present being worked by the Ladysmith Smelting Corporation,

Limited, under a lease and bond. The writer visited the property on March 13th, 1918, and found a crew of miners working, with A. Macauley as foreman, under the superintendence of Harold Grant, of Victoria.

The occurrence of copper ore on this group of claims occurs in a shear-zone in the Sooke gabbro, as classified by C. H. Clapp in his memoir on the Sooke and Duncan map areas, and is a typical representative of the Sooke type of ore-deposits. The mineralization is chiefly chalcopyrite, usually very pure, but there is often some iron pyrite associated with it. The gangue material is made up almost entirely of hornblende.

The chalcopyrite occurs disseminated through a wide shear-zone, the full width of which has not yet been determined. In the main zone there occur several fissures and subsidiary shear-zones, in some of which are zones of enrichment, varying from 5 to 20 feet in width, in which are found bodies of chalcopyrite carrying copper values averaging about 8 per cent., with the maximum as high as 18 per cent. The most important of these zones of enrichment occurs on the *Willow Grouse* mineral claim where the mine-workings are located, and where the known length of the enriched fissuring is about 150 feet and the width of the high-grade ore-bodies, of which there are three, is 6 feet, 15 feet, and 20 feet. The general strike of these fissures is nearly parallel with the strike of the main shear-zone, or N. 40° E., and the dip is at an angle of about 70 degrees to the north-west; but there is one of the fissures which strikes N. 3° W. and dips 80 degrees west that forms a junction with the others near the southerly end of the mine-workings and apparently carries the richer portion of the ore-bodies.

Until recently no attempt had been made to prospect beyond the limits of the enriched zone where the ore was mined from a deep open-cut, hand-sorted, and the culled material, consisting of low-grade ore and waste, left in the cut. Since the Ladysmith Smelting Corporation has taken over the property the culled material has been again hand-sorted, about 400 tons of ore of a shipping grade selected and shipped, and the waste material trammed out of the cut, so as to enable the miners to extend the development-work farther into the main shear-zone, beyond the joint-plane that has heretofore been considered the north-westerly boundary of the mineralization. This has recently been shown to be merely a joint or possibly a fault-plane in the ore-body, since blasting into the so-called wall exposed another ore-body lying parallel with those that have been mined.

The present operators propose extending their prospecting-work by boring with a diamond-drill to endeavour to determine the extent of the mineralized zone, as well as its continuity to deeper levels.

Margaret Group.

This group consists of three mineral claims—the *Margaret*, *Copper King*, and *Eureka*—at present being operated by O. B. Gerle and associates, of Victoria. This property was fully described in the Report of the Minister of Mines for 1916, but since that report was made there has been much more development-work done which shows important results.

Mineralogy.—The metallic minerals present are chalcopyrite, magnetite, pyrrhotite, pyrite, and native copper. The non-metallic, gangue minerals are amphibole, chlorite, feldspar, and quartz. Chalcopyrite is the only important copper-bearing mineral, and occurs in small disseminated grains, minute veinlets, and in larger veins and masses.

The proportion of massive chalcopyrite occurring in the mineral-bearing zone varies considerably, and is almost always associated with more or less magnetite. Sometimes, however, the chalcopyrite occurs comparatively pure and filling fissures from a foot or so in width up to several feet in width. In other parts of the shear-zone the chalcopyrite occurs in grains and particles as impregnations disseminated through the gabbro in sufficient quantity to so enrich the rock as to make a large proportion of it shipping-ore, while the remainder will be valuable if treated by concentration.

On the *Margaret* group of mineral claims the proportion of massive ore as contrasted with waste exposed in the workings examined by the writer appears to be about 75 per cent. good ore to 25 per cent. waste. The gangue material in which the ore occurs is almost wholly hornblende.

Characteristics of Ore-bodies.—The ore-bodies on the *Margaret* group are typical representatives of the Sooke type. The occurrences of copper ore that have been so far developed occur in a shallow gulch or depression of variable width that appears to extend through the three mineral claims, and appears to have been formed by erosion, which acted on the mineralized

part of the shear-zone, as this rock offered less resistance than that part of the gabbro country-rock in which the shearing action had been less pronounced. At the north-easterly or upper end of the gulch there is a large swamp, in which is exposed a body of almost solid ore opened by a shaft 25 feet deep, and an open-cut for a length of more than 200 feet, a width of about 12 feet in the north-east end of the cut, and to a depth of 25 feet below the level of the surface outcropping at that point. A short distance to the south-west and in the same open-cut the ore-bearing gabbro has been proven to reach a width of 40 feet.

When the open-cut was first made it appeared as though the foot-wall of the ore-body was exposed on the north-westerly side, and in sinking the shallow shaft this so-called wall was made one side of it, but later it was discovered that the wall was only the cleavage-plane of a fracture in the shear-zone, and, when blasted into, that solid ore was exposed beyond it. By a series of open-cuts made towards the north-westerly side of the gulch, and into the rock that had suffered less from erosion, a still greater width of ore-bearing gabbro is exposed, and at the time of the examinations the full width of the ore-body on this portion of the property was undetermined.

In an adit driven to crosscut the ore-body at a point about 250 feet south-westerly from the shallow shaft mentioned, a well-defined hanging-wall occurs near the portal of the adit, dipping at an almost vertical angle and striking in a north-easterly direction, conformable with the strike of the ore-body exposed in the open-cut already referred to. From the hanging-wall the ore-body is crosscut for 10 feet, with the whole face of the crosscut in ore. Drifts are driven in both directions at right angles to the crosscut for a total of about 25 feet in length. These drifts are in solid ore, with the faces of both in ore.

Development-work.—The development-work done since the holders of the lease took the property in the late autumn in 1916 consists of a deep open-cut, a shaft about 25 feet deep below the floor of the cut, and an adit at the south-westerly end of the main ore-body. The open-cut is more than 200 feet long, with a maximum width of about 40 feet, a minimum width of about 12 feet, and a face of about 40 feet in height at the widest part of the open-cut. The adit, including the open-cut approach, is about 50 feet in length, its portal is about 250 feet south-westerly from the shaft, and it is being driven as a drift under the long open-cut referred to above.

There has also been done a considerable amount of prospecting-work, such as stripping and open-cuts, some of which are located about 1,000 feet to the south-westward from the adit, and in these chalcopyrite occurs in a gangue of hornblende similar to the occurrences in the adit, open-cut, and shaft.

About 1,000 feet south-westerly from the adit there are located some old workings, the chief of which is a shaft, said to be 25 feet deep and full of water, so could not be examined. This shaft was sunk in an outcrop of hornblende, through which are disseminated lumps, grains, and small particles of chalcopyrite, and apparently the shaft is sunk in an extension of the shear-zone in which the ore occurs.

In addition to the old workings, there is an open-cut 176 feet long which crosscuts the shear-zone at this point and exposes low-grade concentrating copper minerals, mainly chalcopyrite, disseminated through the hornblendic country-rock the entire length of the crosscut, demonstrating that Clapp's estimate of the width of the shear-zone, in the following paragraph from his report published in 1912, being about 200 feet is well established:—

"On the southern slope of Mount Maguire are three claims—the *Margaret*, *Copper King*, and *Eureka*—located on a wide shear-zone, some 200 feet wide, having a strike of N. 43° E., which is traceable for the whole length of the three claims. As a rule, the metallic minerals, chiefly chalcopyrite, are disseminated through the entire shear-zone, with the best values along the north-west wall. Occasionally the chalcopyrite occurs in small lenses and veins. Quartz stringers are very abundant. The deposit is opened only by four or five small pits or shafts."

The workings described in Clapp's report are those referred to by the writer as the "old workings."

The development-work done up to the time of the examination in March, 1918, indicates that the main ore-body has approximately the following dimensions: Length, about 250 feet; minimum depth from the surface to the floor of the adit or tunnel, 25 feet; maximum depth, 50 feet; average width, about 25 feet. The average width may prove to be still greater, as the cleavage-plane that was considered to be the foot-wall proves to be only a false wall, since blasting into it has proven that ore is found to occur beyond it and the definite foot-wall is not yet exposed.

Figuring from the dimensions given above, there is apparently about 20,000 tons of ore above the floor of the adit that can be classed as "probable" ore, meaning such ore as is only partially developed, not sufficiently so to admit of actual measurement, but of the occurrence of which the indications are sufficiently strong to warrant an assumption that such ore probably occurs.

Iron Mine Hill. Active prospecting has been carried on during the past winter along the coast of Juan de Fuca strait to the south-east of Iron Mine hill and east of Possession point, where A. McVittie, of Victoria, has been unwatering a shaft sunk several years ago on Crown-granted land owned by F. B. Pemberton, of Victoria. The prospects of exposing a body of copper-bearing ore on this property are said to be good, but the work had not progressed far enough at the time the writer visited East Sooke to enable him to make a thorough examination of the old workings.

Caffrey. In the same neighbourhood as the old workings that McVittie is reopening there is a group of mineral claims owned by Frank Caffrey and associates, of East Sooke, on which, it is reported, there occur very promising outcroppings of copper ore in similar geological conditions to those which surround the occurrences on the *Willow Grouse* and *Margaret* groups. The writer expects to visit these Coast prospects during the coming spring to report on the progress made by the parties engaged in prospecting there.

Jordan River District.

The neighbourhood of the Jordan river which flows into the Juan de Fuca strait appears to have first received attention from prospectors for lode mines in 1915, although placer-miners were prospecting the river bed and bars, as well as the black-sand deposits near the mouth of the river, several years ago, but without commercial success.

George E. Winkler, of Victoria, was the first prospector to discover copper-bearing ore in-place in this part of Vancouver island, and he informed the writer that it was owing to reading the report of Chas. H. Clapp in Memoir No. 13, "Southern Vancouver Island," published in 1912, that he commenced a thoroughly systematic search for copper minerals in the mountains in the vicinity of the river. His search was rewarded by finding occurrences of outcrops of chalcopyrite in a country-rock that resembled very much the country-rock on the East Sooke peninsula. This resulted in his staking a group of mineral claims, on which he performed the assessment-work to give him possessory title, and during the spring of 1917 bonded his claims to R. H. Stewart and associates, of Vancouver, who organized the Sunloch Mining Company, Limited, and has since been developing the property with a crew of miners, of which John Hanna is foreman.

Geography.—As the Jordan River district is a new one so far as lode-mining is concerned, the following short description of that part of Vancouver island with regard to the geography, as well as the geology, is advisable as a part of this report:—

The Jordan river has its source in a series of small lakes and swamps in the vicinity of Jordan meadows, about fifteen miles distant in an air-line from the southerly coast of Vancouver island and Juan de Fuca strait. The distance by following the bends and sinuosities of the river is probably nearer thirty miles than fifteen, since the stream is quite crooked. For some considerable distance above its mouth the river flows between very precipitous banks, so steep as to be better described as the walls of a box canyon. The stream carries a very considerable volume of water and flows with heavy grade, so much so that the Vancouver Island Power Company, a subsidiary to the British Columbia Electric Railway Company, selected this river as a source to furnish water-power to generate electric power to run that company's street-car and electric-light systems in the city of Victoria and its interurban lines.

The company's power-house is located at the mouth of the river, and the water-supply is diverted from the upper reaches of the stream, about seven or eight miles above the mouth, where a concrete dam has been built, from which the ditch-line starts that carries the water to a second reservoir at an elevation of about 1,100 feet, about two miles from the mouth of the river, and from which the water is carried through a pipe-line to the power-house.

Geology.—In Clapp's report on the geology of Southern Vancouver island, he states that the slaty and schistose rocks of the Leech River formation, in which the Jordan river has its source, are the oldest rocks of southern Vancouver island. They form a broad belt with an average width of about five miles, which extends from the east coast of the island to the west

coast, in the vicinity of Port Renfrew. He also states: "Apparently unconformable upon the Leech River formation, although separated from it largely by faults, are rocks of lower Mesozoic age, the Vancouver group. The Vancouver group has been subdivided into the Nitinat formation, the Vancouver volcanics, the Sutton formation, the Sicker series, and the Metchosin volcanics."

The prevailing rock formation in the lower Jordan River district belongs to the Metchosin volcanics, which are composed of ophitic basalt flows, tuffs, and agglomerates, with intrusive diabase dykes. These rocks contact unconformably with those of the Leech River formation, about six miles up the river from its mouth, and the line of contact is represented by an extensive fault, of which Clapp says: "The southern boundary of the Leech River formation, with the Metchosin volcanics, is also an extensive fault. It is approximately parallel to the north boundary fault, but with the apparent upthrow to the north, the Metchosin volcanics being the younger. The character of this fault is also unknown."

Sunloch Group.

This group of mineral claims was examined on November 24th and 25th, 1917. The group is located on the Jordan river, about two miles above the mouth and forty-two miles by auto-road from Victoria. The mine-workings are about two miles from the power-station of the Vancouver Island Power Company, and about 6,000 feet from the end of a spur of a logging-railway built to the beach near the power-station, and which could readily be extended to the present main mine-workings on the *Sunloch No. 6*.

The property known as the *Sunloch* group contains twenty-eight claims in all, but the development-work has been confined almost entirely to the *Sunloch No. 6* claim and to the northern part of the claim which is intersected by the Jordan river. The banks of the river at this point on both sides rise very abruptly, so that, while the elevation of the river-bed is 550 feet above sea-level, the banks on each side reach an elevation of about 1,100 feet. The mining development-work is at elevations from 620 to 865 feet.

On the *Sunloch No. 6* mineral claim there occurs a system of shear-zones in the Metchosin volcanic country-rock which strikes at nearly right angles to the course of the Jordan river and apparently maintains continuity across it, because at one point work on the westerly side has exposed the same character of ore occurring under practically similar conditions, geologically, as occurs on the easterly side.

Six mineralized shear-zones have been exposed, varying in width from about 20 feet to 68 feet, within a width of about 800 feet. These zones are cut by several quartz stringers and are mineralized with iron pyrite and chalcopyrite, with an appreciable quantity of silica in the gangue. The zones are practically parallel to each other and strike about N. 60° W.

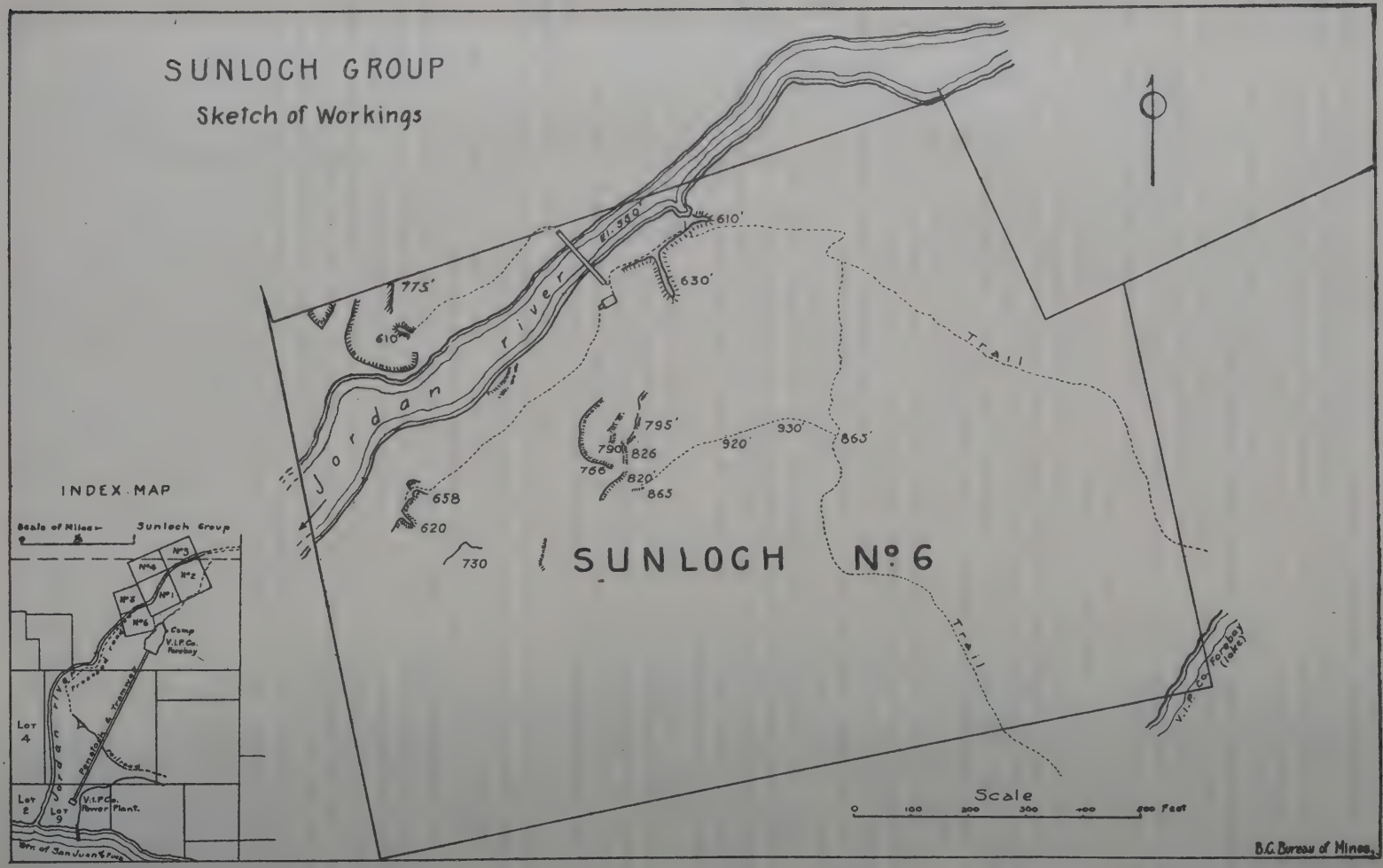
The development-work done consisted of four adits or tunnels exposing three distinct zones, as well as extensive surface stripping across another, known as the "Centre" zone, where three open-cuts have been made on apparently three separate mineralized zones at elevations between 780 and 865 feet. Each cut is about 20 feet long across an ore-body.

Low-grade copper ore also has been exposed on the opposite side of the river in a drift-adit 20 feet in length. This exposure occurs apparently as an extension of the "Centre" zone.

The zone known as the "North" zone, owing to its being the most northerly occurrence of ore opened on the property to date, has been exposed by a crosscut adit, driven 23 feet in length in ore the entire distance. This ore varies in assay values from 2.15 to 2.9 per cent. copper.

The zone known as the "Second North" zone is about 100 feet southerly from the "North" zone. This is being developed by a drift-adit, which was 100 feet in length and exposed an ore-body which assayed from 1.25 to 2.9 per cent. copper, and also carried about 50 cents to the ton in gold and silver values combined. It is purposed to continue driving this drift for a further distance, and then turn its course and crosscut the formation in both directions at right angles to the present course of the drift. The distance between the crosscut adit on the "North" zone and the drift-adit on the "Second North" zone is about 100 feet.

The distance in a south-westerly direction between the drift-adit on the "Second North" zone and, so far as is known at present, the most southerly mineralized zone, known as the "Cave" zone, is about 650 feet. Between these showings or zones the one known as the "Centre" zone occurs. The width of mineralization in the last-mentioned is undetermined, as the three open-cuts are all the development-work yet attempted, and it is not possible to say for certain whether these open-cuts expose three distinct mineralized zones or are all made on one zone, which, in such an event, would be nearly 170 feet wide. It is to determine that question


SUNLOCH GROUP
Sketch of Workings
Jordan river
El. 342
610'
630'
775'
610'
795'
790'
826'
766'
820'
865'
920'
930'
865'
658'
620'
730'
TRAIL
TRAIL
SUNLOCH No. 6
INDEX MAP
Scale of Miles
Sunloch Group
No. 3
No. 4
No. 2
No. 5
No. 1
No. 6
Camp V.I.P.Co. Forebay
Lot 4
Lot E
Lot 9
Penstock & Trestle
V.I.P.Co. Power Plant.
Strm. of San Juan & Flume
V.I.P. Co.
Forebay (Intake)
Scale
0 100 200 300 400 500 Feet
B.C. Bureau of Mines.

that R. H. Stewart, the manager, proposes to drive a long crosscut from the face of the drift-adit on the "Second North" zone, which will cut the formation under the "Centre" zone at a depth of about 200 feet below the highest open-cut.

The work on the "Cave" zone is at an elevation of 620 feet above sea-level, and consists of an open-cut across the face of a steep bluff and a drift-adit driven on the strike of the ore-body exposed by the open-cut. There is a width of ore exposed in the cut of 68 feet that averages 1.2 per cent. copper, while across 35 feet of that width the ore averages 2 per cent. in copper. The drift-adit is 40 feet in length and the ore exposed carries from 2.25 to 2.7 per cent. in copper.

The ore-body exposed in these workings is more siliceous than that exposed in the other workings on the *Sunloch No. 6* mineral claim. This work on the "Cave" zone is located about 150 feet in an easterly direction from the south-westerly boundary of the *Sunloch* group of mineral claims.

No samples were taken by the writer, because he was permitted to see the assays from the sampling done systematically by the management as the work progressed up to November 24th, 1917, the time of his visit, and the values stated in the foregoing report are the results from that sampling.

Cowichan Lake District.

More attention has been paid to the Cowichan Lake district during 1917 than in previous years, owing to the results of the development-work performed on the *Blue Grouse* group of mineral claims in 1916, which exposed a considerable body of copper ore of shipping grade. The *Sunnyside* group, adjoining the *Blue Grouse* on the north-west, was bonded in the spring by J. D. Grayson, of Victoria, who commenced development-work, and some prospecting was done in other parts of the district. In the Report of the Minister of Mines for 1916 some space was devoted to a description of the *Blue Grouse* group of mineral claims, and about the middle of November last the district was visited and the development-work done examined on the two groups of mineral claims just referred to and which is described in the following pages of this report.

Geography.—Cowichan lake is about twenty miles long; the head of the lake is near the centre of the southern portion of Vancouver island. From there it drains south-easterly into the Cowichan river, which is also about twenty miles long and flows into Cowichan bay at the north end of Saanich inlet. The valley formed by the lake, river, and bay nearly divides the southern part of Vancouver island into two halves.

Geology.—Clapp described the Cowichan valley as being underlain by a closely folded syncline, slightly overturned to the south-west, of conglomerates, sandstones, and shales of the Cowichan group, flanked on either side by resistant volcanic rocks. He says: "The less resistant sedimentary rocks were more easily eroded by the cycle following the uplift of the Tertiary peneplane, and a late mature valley was formed, which during the glacial period was maturely glaciated, being deepened especially in the upper portion where Cowichan lake occurs."

Blue Grouse Group.

This group contains the *Blue Grouse Nos. 1, 2,* and *3* claims, situated about one mile from the shore of Cowichan lake and about six miles westerly from the Riverside townsite, where the lake drains into the Cowichan river. Until recently the property was worked under a lease and bond by H. J. Ketchen and Murray Miller, of Victoria, but these gentlemen have now sold their interests to the Consolidated Mining and Smelting Company, of Trail. G. H. Kilburn, who during the past year has been engaged in field-work on the coast and on Vancouver island for the company, has been appointed manager.

Geology.—The occurrence of copper ores on the *Blue Grouse* group occur as contact-metamorphic deposits developed in contact-metamorphosed limestone at some distance from the intrusive Vancouver volcanics, but so intimately associated with metamorphic and sheared volcanics that the two types of metamorphic rocks cannot always be distinguished.

Characteristics of the Ore-bodies.—There are several outcrops of copper ore exposed on each of the claims in the group, but the most prominent occur on the *Blue Grouse Nos. 2* and *3* claims near the dividing line where most of the development-work has been done. The mineralization is made up of chalcopyrite, iron pyrite, and some magnetite in a gangue made up almost entirely of garnetite, very much decomposed usually at and near the surface. The ore outcroppings are characterized by the heavy gossan which overlays the copper sulphides and usually

form prominent landmarks. The values carried by the ore vary from about 1 to 10 per cent. in copper, with small amounts of gold and silver.

The most extensive of the outcroppings occurs at an elevation of about 1,450 feet above sea-level, where a natural exposure made by erosion is about 30 feet wide and about 50 feet along the strike, N. 23° W. Both hanging and foot walls are well defined, dipping at an angle of 37 degrees to the westward. The width of the ledge material is about 30 feet, as shown in a crosscut adit driven about 50 feet below the apex of the outcrop on the hanging-wall side, but the length has not yet been determined.

Although about 1,500 tons of ore that averaged nearly 7 per cent. copper and about $1.50 in gold and silver to the ton was shipped during 1917, it is the opinion of the writer that the proposition would yield better results if a systematic and extensive system of development was followed with the view of determining whether the ore-bodies were of sufficient extent to warrant the installation of a concentrating-mill, as the cost of hand-sorting as closely as is necessary to produce the grade of ore that has been shipped is a great handicap.

Development-work.—The development-work has been chiefly confined to three points, the most northerly being on the *Blue Grouse No. 3* claim, that for convenience is later referred to as No. 1 workings; the next work is about 200 feet southerly, called No. 2 workings; and the third work is about 300 feet south-westerly from the No. 2 workings and called No. 3 workings.

No. 1 workings consist of a deep open-cut made on an outcrop of gossan and chalcopyrite that occurs on the face of a steep bluff, from which a considerable tonnage of ore was mined and shipped.

No. 2 workings consist of an open-cut approach 15 feet long to a crosscut adit 87 feet long, with a drift driven 28 feet to the south and another driven 52 feet to the north. All of this work is in ore except the open-cut approach and first 29 feet of the crosscut adit. At the time of the examination the ore was being stoped from above the adit level, and a very large proportion of the output of the mine has come from this work. In connection with the No. 2 workings there is a wide outcropping of copper ore exposed in an open-cut about 50 feet southerly from the main adit, but no connection between the two ore-bodies had then been determined.

No. 3 workings consist of a series of open-cuts in which are exposed two apparently parallel ore-bodies occupying fissures in the sheared metamorphosed volcanics; each of these open-cuts exposed ore-bodies about 50 feet in length and about 10 feet wide. The ore in these workings showed fairly solid chalcopyrite that would carry about 6 per cent. copper.

At each of the workings mentioned ore-bins have been constructed, and at the No. 2 workings there is an ore-chute down which the ore is conveyed to the loading-bin on the wagon-road about 100 feet lower elevation.

Sunnyside Group.

This group contains two mineral claims, called the *Sunnyside* and *Here-it-is*, situated on the North fork of Sutton creek, which empties into Cowichan lake about six miles north-westerly from the Riverside townsite. The property is being worked by J. D. Grayson, of Victoria, under a lease and bond from the owners.

Geology.—The actual contact between metamorphosed limestone and metamorphosed volcanic rocks is very well defined on the *Here-it-is* claim, which lies westerly from the *Blue Grouse* group, and the copper ore on the former occurs as a contact-metamorphic deposit at the immediate contact and developed in much-altered limestone, hornblende, and garnetite. The contact-metamorphic zone is apparently of very considerable width, possibly about 300 feet, and the ore occurs as lenses, but the boundaries, except on the north-easterly side, are not well defined, as the mineralization gradually fades away or grades into the garnetite gangue.

Characteristics of the Ore-bodies.—Ore-deposits are exposed in three sets of workings: The No. 1 workings expose an ore-body in an open-cut and in the face of an adit 20 feet below the floor of the open-cut; the No. 2 workings expose lenses of ore of irregular shape and extent in a series of open-cuts from which ore is being quarried, scattered over an area of about 2 acres; the No. 3 workings expose a narrow stringer of chalcopyrite in quartz gangue. There has not been sufficient systematic work done to determine what, if any, are the relations between the various lenses or their extent.

A sample representing ore that has been roughly hand-sorted, taken from a width of 6 feet in the floor of the No. 1 open-cut, assayed: Gold, trace; silver, trace; copper, 3 per cent. Judging from the general appearance of the ore-deposits in the other workings, it is the opinion

of the writer that, unless close hand-sorting is adopted, the mine will produce a general product of about the value shown in the sample referred to by rough hand-sorting. There is no doubt but that the future value of this property will depend upon the extent of the ore-bodies and their adaptability for treatment by concentration; consequently a thoroughly systematic plan of prospecting should be adopted to determine whether the extent of the ore-bodies is sufficient to warrant the installation of a concentrating-mill.

Duncan District.

Cornucopia Group.

This group contains four mineral claims, known as the *Cornucopia*, *Old Gentleman*, *Louise*, and *Rebel*, situated about six miles north-easterly from the town of Duncan near the Duncan-Crofton wagon-road. The group of claims occupies practically the same ground as was occupied by the *Yreka* group, located in 1900, on which two shafts were sunk, said to be 210 feet and 140 feet deep, but the old locations were abandoned after the owners bonded the *Yreka* group of mineral claims on the South-east arm of Quatsino sound in 1902. The *Cornucopia* group is owned by J. Mouatt, Edward Ensel, R. N. Ferguson, and Ernest C. Watson, of Victoria.

Geology.—In the vicinity of this group of mineral claims the prevailing country-rock is a belt of metamorphosed rocks converted into schists and classified by Clapp as the Mount Sicker schists. The belt represents an extension or continuation of the same rocks as occur on Mount Sicker, in which the *Lenora*, *Tyee*, and *Richard III.* mines are located, but in the vicinity of the *Cornucopia* group the belt of schists is much narrower than on Mount Sicker, and is flanked on the north and south sides by the Cowichan group of conglomerate, sandstone, and shale.

Characteristics of the Ore-bodies.—The belt or zone of schists is very much sheared and fissured on the *Cornucopia* group of mineral claims, with some of the fissures filled with quartz carrying some copper minerals of considerable width on the surface, but showing indications of lenticular structure and appearing more like gashes occurring in the shear-zone at irregular intervals. The occurrences of the quartz-filled fissures, provided further prospecting determines that the extent is sufficient, may prove of importance as a source to supply siliceous flux to the smelters, as the quartz apparently carries sufficient copper values to avoid robbing other ore for losses in the slag, or further prospecting may determine that the occurrences are of value as concentrating propositions.

Development-work.—The present owners of the *Cornucopia* group had not performed much development-work up to the time that the writer examined the property on November 14th, 1917, and had confined their work to the *Old Gentleman* mineral claim, a considerable distance west of the old workings, where they had sunk a prospect-hole about 12 feet deep, 10 feet long, and 8 feet wide. A sample taken from the dump at this hole assayed: Gold, trace; silver, 0.8 oz.; copper, 2.1 per cent.

About 200 feet west from the prospect-hole just mentioned there is a short adit driven in schist and quartz a distance of about 15 feet, with about 15 feet of backs at the face, and about 400 feet farther in a westerly direction there is a very extensive outcropping of quartz carrying low values, but no development-work, except a short open-cut, has been done at this point.

The old shafts could not be examined because they were full of water. The dumps near the collars of the shafts were in no condition to sample, but the writer remembers seeing sacked ore on these dumps in 1902.

Koksilah River District.

The occurrences of copper ore that occur near the Koksilah river within a few miles of Cowichan Station, on the Esquimalt & Nanaimo Railway, were described in the Report of the Minister of Mines for 1916, and, as there has not been any activity in that section during the past year, it is unnecessary to repeat the description in the present report; but on June 28th, 1917, the writer examined for the first time the property known as the "*Robertson* silver-mine," near the headwaters of the Koksilah river, about eleven miles by the old Jordan Meadows trail, westerly from the head of Shawnigan lake.

Robertson.

This mine was located by W. A. Robertson, of Victoria, in 1880, but silver-bearing ore was discovered by Mr. Robertson in 1865 in float found in the bed of the river. At the present time the property is owned by Dr. Helmcken and W. A. Robertson, of Victoria, and has been Crown-granted for several years, but owing to lack of transportation there has been no activity on the ground since it was Crown-granted. The

camp and mine-workings are situated on the steep bank of the Koksilah river, at the base of a mountain, the summit of which reaches an elevation of about 2,000 feet above sea-level.

Geology.—The geological formation in which the *Robertson* mine occurs is that classified as the Vancouver volcanics, made up of metamorphic andesite, amygdaloid, porphyries, tuff, and breccias. The contact between the metamorphosed volcanics and the Wark gneiss, which latter is made up of batholiths of diorite gneiss and intrusive quartz diorite gneiss, occurs in close proximity to the occurrences of ore on the property. Nowhere was the ore observed to occur immediately at the contact, but invariably it was found developed in shear-zones in the volcanics. The mineralization is made up of galena, iron pyrite, sphalerite, a little molybdenite, and some chalcopyrite in a quartz gangue, with which is mixed breccia, garnetite, and calcite.

Characteristics of the Ore-bodies.—The occurrences of ore on the *Robertson* mine occur as lenses in fissures in a contact-metamorphosed shear-zone in the volcanic rocks. The development-work so far done is not sufficient to determine many facts with regard to extent or structure, and no relationship has been established between the various outcroppings that are exposed on the mountain-side, on the river-bank, and in the bed of the river. Two of these exposures of ore have been prospected to some extent. One is an outcropping about 200 feet elevation above the river-bed, where a quartz vein occurs carrying some little galena disseminated through the quartz for a width of about 18 inches. The strike of the quartz veins is north-easterly and dip nearly vertical, with the high angle towards the south-east. Another outcropping of ore occurs in the river-bank, where a vein-like occurrence has been drifted on for a distance of about 30 feet. The exposure shows a quartz vein about 4 feet wide at the portal of the drift. The mineralization of this ore-body is made up of some galena, iron pyrite, sphalerite, and a little chalcopyrite in a quartz gangue. The outcropping is in line with that farther up the mountain-side, and already referred to, but no connection between the two has been established; the strike of the last mentioned is north-easterly and dip about 55 degrees to the south-east. A grab sample taken from the dump at the portal of the drift assayed: Gold, 0.02 oz.; silver, 6 oz.; copper, trace.

Development-work.—The development-work on the property is considerably more than is usually found on an unproductive prospect, especially when located in as inaccessible situation as this is.

There are two adits, an upper and a lower, as well as a large open-cut about 200 feet above the level of the Koksilah river. The upper adit is 125 feet in length, driven in country-rock the whole distance. This adit was projected to expose the ore-body on the adit level, which is exposed in the open-cut about 70 feet higher elevation, but so far no results have been obtained. The lower adit is about 125 feet in length under cover and is approached by an open-cut 30 feet in length; this latter is through very much weathered, decomposed rock, evidently the walls of a vein, where timbering was necessary, to the portal of the adit, which is in solid rock. A quartz vein is exposed at this point with well-defined walls, and the adit is driven as a drift along the vein for 30 feet, where a winze is sunk, said to be about 20 feet deep, but being full of water could not be examined by the writer. The adit is driven about 95 feet beyond the winze in country-rock.

SUTTON LAKE DISTRICT.

The Sutton Lake district is situated south-westerly from the town of Ladysmith, on the Esquimalt & Nanaimo Railway, and is so named because the late William Sutton several years ago constructed a trail from Ladysmith to Nitinat lake, on the west side of Vancouver island, passing en route a fair-sized lake about eight miles from Ladysmith, which has been called Sutton lake ever since by the prospectors, but is called Coronation lake on the geological maps.

At Sutton lake a trail called the Majuba trail branches off towards the south, while the main or Sutton trail continues towards the south-west. The Majuba trail crosses a low divide to the head of Boulder creek, a tributary of the Chemainus river, and follows down that stream, which some years ago was the scene of considerable activity by prospectors who staked several mineral claims. Owing to inaccessibility because of distance from transportation, as well as the low grade of the ore, most of the locations have been allowed to lapse.

On July 2nd, 1917, this section was visited and an examination made of the *Anita* mineral claim, described as follows:—

Anita. This mineral claim is on Boulder creek, about eleven miles south-westerly from Ladysmith. It is owned by Mrs. E. Forcimer, of Nanaimo. The writer was accompanied by R. Kaplansky, the agent for Mrs. Forcimer, when he made

his examination. About five miles of the distance between Ladysmith and Sutton lake is covered by a logging-railway constructed by the Victoria Lumber Company, of Chemainus, which is at present out of use, but could be put into commission without much difficulty if the condition of the mineral claims warranted such action.

Geology.—The prevailing rock formation in the vicinity of the *Anita* mineral claim is schist, probably an extension of the belt of Sicker schist that is crosscut by the Chemainus river between Mounts Sicker and Brenton. The belt of schist is flanked on its northerly side by a batholith of intrusive igneous rock resembling granodiorite.

Characteristics of the Ore-bodies.—The ore occurs in bodies of quartz which appear to be lenses filling fissures in the schist, and which are mineralized in spots by impregnations of chalcopyrite and iron pyrite. A sample of the mineralized quartz assayed: Gold, trace; silver, 0.3 oz.; copper, 3.3 per cent. This sample did not represent an average of the quartz-body, but only such portion of it as showed mineralization, which is a comparatively small proportion of the whole body at the point where the sample was taken.

The quartz vein can be traced by outcroppings which occur at intervals from Boulder creek for a distance of about 200 feet in an easterly direction. In the bed of the creek, but where there was too much water to admit of a close examination, the quartz-outcroppings appear to be about 15 feet wide. Near the creek where some stripping and open-cut work has been done the vein does not appear to be as wide, although it may be, as the body of quartz has not been fully uncovered.

About 100 feet or so from the creek in an easterly direction there is a shaft, said to be 50 feet deep, but because of being about half-full of water and closely timbered this work could not be examined. Apparently the shaft is sunk in mineralized quartz, but no sample was taken from the dump, as it is some years since the shaft was sunk, and the dump, so the writer was informed by Mr. Kaplansky, had been sorted over several times; consequently no sample would represent a fair average of the material taken out of the shaft at the time it was sunk. About 100 feet easterly from the shaft an open-cut has been made. This is 52 feet long, about 3 feet wide, and of an average depth of about 4 feet, with a maximum depth in places of 7 feet. Some quartz occurs in the northerly end of the cut, but the work had not been continued sufficiently far to the north to expose any extensive body of quartz.

Owing to the demand at present by the Coast smelters for siliceous ores for fluxing purposes, the *Anita* mineral claim may be considered to possess sufficient promising possibilities to warrant further prospecting and some development.

If the main Sutton trail is followed for about ten miles from Sutton lake, beyond the forks where the Majuba trail branches off, it leads to a district where several mineral claims were staked some years ago, and it is reported that quite extensive work has been done on some of them, particularly the *Maple Leaf* group of mineral claims, owned by R. Nichols, at present a member of the C.E.F. on overseas service; also on the *Tyee* mineral claim, owned by W. Beattie, of Ladysmith. The writer was unable to examine these properties during the past summer, owing to the difficulty of procuring a guide who was thoroughly conversant with the claims in the absence of Mr. Nichols and the inability of Mr. Beattie to make the trip.

VANCOUVER MINING DIVISION.

Britannia.

The history of the *Britannia* mines, on Howe sound, dates back to 1898, when outcroppings of copper ore were discovered and the first mineral locations were made by trappers on a branch of Britannia creek, named Jane creek, after the name given to one of the mineral claims of the original group staked on Britannia mountain. This group was purchased during the same year from the original locators by Leo Boscowitz, of the fur-buying firm of Boscowitz & Sons, of Victoria, through a fur-buyer named Thomas T. Turner, and some deveolpment-work was commenced. Owing to this transaction a large number of prospectors were attracted into the neighbourhood of the new strike, and within a few months practically all of the ground between the beach and the *Jane* mineral claim, a distance of about four miles, was located, as well as several mineral claims in what was known as South valley, on Furry creek, lying to the south of the earliest locations, about one mile distant.

In the autumn of 1899 seven-tenths of the original *Britannia* group of four mineral claims was bonded by Boscowitz to Howard Walters and Jos. Adams, of Libby, Montana, who organized the Britannia Copper Syndicate with a capitalization of $250,000 divided into 400 shares of the par value of $625 each.

This syndicate performed considerable development-work, and about 1904 sold a control of the capital stock to George Robinson, of Butte, Montana, and Henry Stern, of New York, on a basis of $1,500 a share, who also later purchased the three-tenths interest retained by Boscowitz; organized the Britannia Mining and Smelting Company, Limited; purchased the smelter built by Breen & Bellinger at Crofton, on the east coast of Vancouver Island; erected a concentrating plant, wharf, and bunkers at Britannia Beach, Howe sound; and connected the mine-workings with the concentrating-mill by an aerial tramway about two miles and a half long, built in two sections.

Operations were carried on under the management of George Robinson until his death, but concentration of the ore by water proved unsuccessful. With the then low price of copper, the ore was of too low grade to be profitably smelted direct, and it appeared as though the enterprise would result in failure. About that time the late G. B. Schley, of New York, acquired control of the company, and commenced a policy of systematic development and thorough prospecting of the property. Although the mine was withdrawn from the list of producers from about 1907 until 1910, the results from the development-work showed that there was about 400,000 tons of ore actually available of sufficiently high grade to be smelted direct. Owing to Mr. Schley's perseverance and indomitable courage, as well as his ability to finance the extensive programme for development which he outlined, the enterprise was changed from a possible failure to a success, and since the introduction of the flotation method of concentration, by which the enormous tonnage of low-grade copper ore occurring in the mine can be successfully treated, the *Britannia* mine ranks among the most important copper-mines in the British Empire.

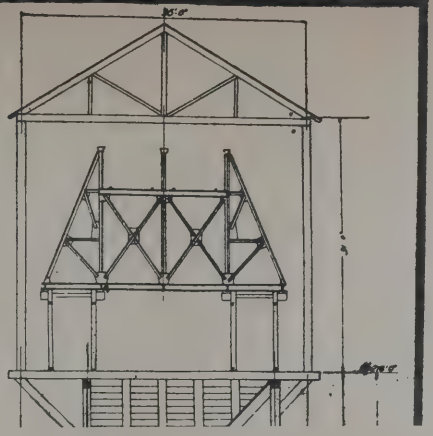
The writer examined the underground workings of the property of the Britannia Mining and Smelting Company, Limited, during the latter part of November, 1917, under the guidance of C. P. Browning, the general superintendent, and was extended many courtesies by E. J. Donohue, secretary-treasurer, who was acting-manager in the absence of J. W. D. Moodie, vice-president and general manager.

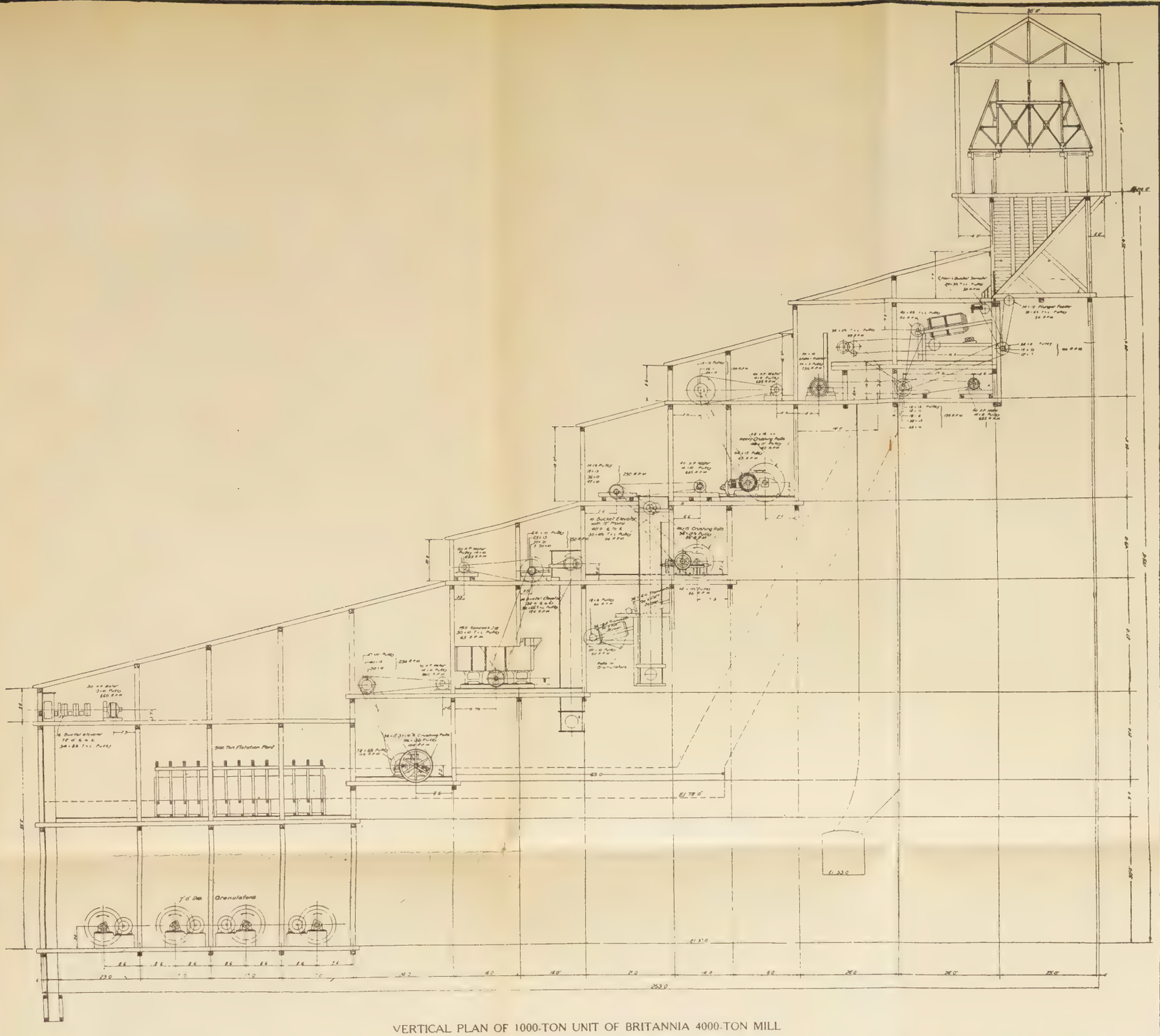
Since the late Mr. Schley acquired the control of the company, the original property has been so greatly enlarged by the purchase of adjoining mineral claims that to-day the holdings are represented by about 350 claims covering an area of approximately 18,000 acres in a solid block. For convenience the present productive part of the property, or that portion from which ore is being mined as distinguished from the claims being prospected, is subdivided into four divisions, known as the *Jane*, *Bluff*, *Fairview*, and *Empress* mines, which adjoin each other and are all connected in the workings. The *Jane* is the most westerly, the *Bluff* is east of and adjoining the *Jane*, the *Fairview* is east of and adjoining the *Bluff*, and the *Empress* is southerly of and adjoining the *Fairview*.

The *Jane* mine is opened underground for a length of 1,000 feet from west to east along the strike of the mineralized zone; the *Bluff* mine extends for 800 feet east from the *Jane;* the *Fairview* mine extends for 2,500 feet east of the *Bluff;* and the *Empress* underground workings extend for 1,200 feet from west to east along the strike of the mineralized zone.

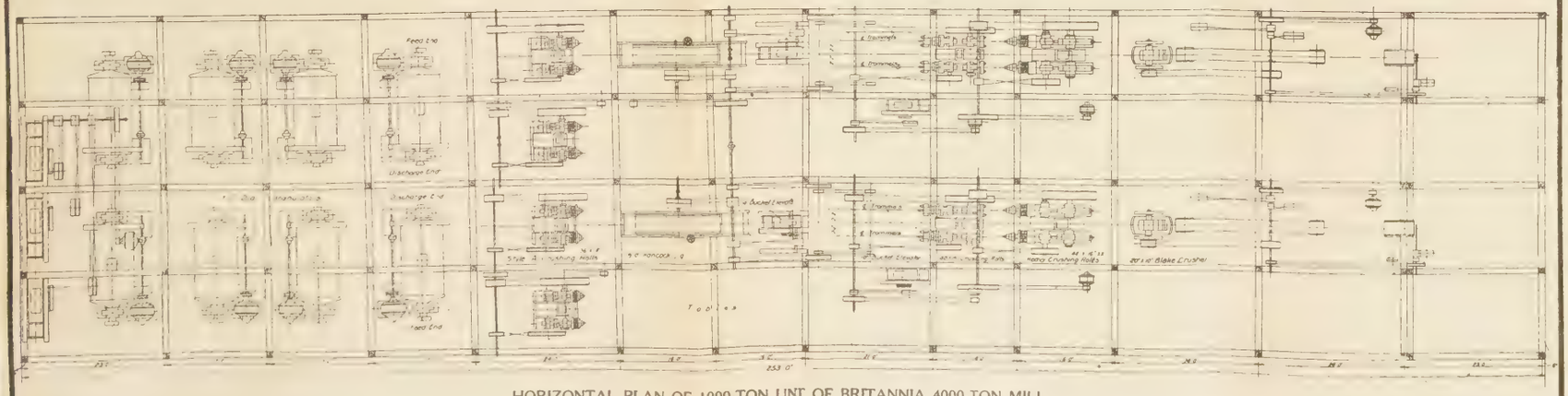
The ore occurrences on the *Britannia* property belong to the replacement type, are very extensive, and occur in what is known as the "Britannia Schist Belt," which extends from the east shore of Howe sound at and near Britannia Beach in a general S. 80° E. direction for a distance of at least about five or six miles. The formation is a silicified greenstone-schist from one to two miles wide, which is very much fissured and occurs between belts of granite. The ore occurs filling fissures in the schist, which have their lines of strike nearly parallel to each other, S. 80° E., conforming with the schistosity, and dip at varying angles from 30 degrees to nearly vertical towards the south. The mineralization in the fissures is chalcopyrite associated with iron pyrite in a siliceous gangue. The fissures are wide but somewhat irregular, and are numbered by the miners for convenience. So far as at present known, there are twelve of these fissures or veins that are numbered from north to south, with the most northerly numbered zero and the most southerly No. 11 vein.

The mine-workings originally were located on and above what is now the 1,000-foot level, at an elevation of about 3,300 feet above sea-level, which was the main haulage-way until the winter of 1915, when the big slide occurred that destroyed the mining camp and terminal of the aerial tramway on that level. Since then a main adit has been driven at the 2,200-foot level, about 2,100 feet above sea-level, which is at present used as the main haulage-way and entrance to the underground workings. This adit is equipped with electric haulage and is 4,712 feet in length,





VERTICAL PLAN OF 1000-TON UNIT OF BRITANNIA 4000-TON MILL



HORIZONTAL PLAN OF 1000-TON UNT OF BRITANNIA 4000-TON MILL

9 feet high by 13 feet wide, driven in a S. 30° E. direction, crosscutting the formation. At a point 3,900 feet from the portal the No. 1 vein is exposed, on which the upraise, known as the No. 1 shaft, is located. This is a vertical upraise to the 1,000-foot level and is the main hoisting-shaft for transporting men, timbers, and supplies to the upper workings.

All of the ore is mined from levels above the 2,200 and transported to the bins on that level by gravity down two rock-raises, the main one known as the No. 68 rock-raise made on the No. 3 vein. This extends from the 850-foot level, at an elevation of 3,500 feet above sea-level, to the 2,200-foot level, and has connections on every level between those two. The other rock-raise is known as the No. 61 or auxiliary, and is made on the No. 1 vein from the 2,200- to the 1,000-foot levels, with connections at every level between.

Above the 850-foot level there are several transfer rock-raises through which ore is transported from the glory-hole and levels between it and the 850, on which electric trains are operated to transfer ore from the bins at the bottom of the raises on that level to the top of the No. 68 or main rock-raise. By this system of transporting ore down to the 2,200-foot main haulage level every economy is exercised and handling of ore is avoided, so that the cost is minimized to the lowest possible figure.

The mine-workings will be described in this report in descending order from their start at the summit of Britannia mountain, at an elevation of 4,350 feet above sea-level, where a glory-hole is opened on veins Nos. 9 and 10, with its dimensions 400 feet in length from west to east by 175 feet maximum width. This glory-hole extends from the surface to the 250-foot level, at an elevation of 4,100 feet above sea-level, and the ore mined in it passes down a rock-raise to the 850-foot level, which is 3,500 feet above sea-level, where the ore is drawn and transferred by electric train to the main rock-raise No. 68, down which the ore passes to the 2,200-foot level, at an elevation of 2,150 feet above sea-level, and which is at present the main haulage-way.

On the 250-foot level there are 2,350 feet of drifts and crosscuts on the veins numbered from 6 to 10, and the workings cover an area of 1,100 feet from east to west by 700 feet from north to south.

On the 250-foot level the tunnel is driven through Britannia mountain, with the northerly portal overlooking the watershed of Britannia creek and the southerly portal overlooking South valley and Furry creek. On the 500- and 1,000-foot levels the mountain has been pierced from side to side by the underground workings, thereby affording easy access from one mine to another, instead of making it necessary to climb over the summit of the mountain by trail to travel from the *Jane*, *Fairview*, or *Bluff* mines to reach the *Empress*, on the opposite side of Britannia mountain.

From the 250-foot level the 500 is reached by way of the *Grandview* hoist, and from the 500-foot level the 1,000 is reached by way of the No. 2 shaft sunk on the northerly side of the workings. Below the 1,000-foot level to the 2,200 access to all levels is by way of the No. 1 or main shaft.

The 500-foot level has up to the present time been one of the most productive levels in the mine. Nine veins carrying commercial ore are exposed on this level, numbered from No. 3 to No. 11, both inclusive, and there are approximately 9,000 feet of drifts and crosscuts.

The 600-foot level, at an elevation of 3,760 feet above sea-level, is opened up with 7,500 feet of drifts and crosscuts.

The 700-foot level, at an elevation of 3,620 feet above sea-level, is opened up with 4,000 feet of drifts and crosscuts.

The 850-foot level, at an elevation of 3,500 feet above sea-level, is opened up with 10,000 feet of crosscuts and drifts. On this level eleven veins, numbered from No. 0 to No. 10, carrying commercial ore, are exposed within a distance of 1,000 feet from north to south, and some of the veins have been drifted on for 1,700 feet from west to east.

The 1,000-foot level, at an elevation of 3,300 feet above sea-level, is opened up with 10,000 feet of drifts and 4,200 feet of crosscuts, without including the old workings done on the *Jane* and *Express* mineral claims by the first operators, amounting to about 1,100 or 1,200 feet. On this level nine veins, numbered from No. 0 to No. 8, carrying commercial ore, are exposed within a distance of 1,000 feet from north to south and a maximum length of 4,000 feet from west to east. This level is the first that enters the ground west of the *Violet* mineral claim, and the lowest level on which connections are made through the *Bluff* mine, on Britannia Creek side of

the mountain, to the *Empress*, overlooking South valley and Furry creek, on the opposite side of the mountain.

The 1,200-foot level, at an elevation of 3,100 feet above sea-level, is opened up with 3,050 feet of drifting and 2,400 feet of crosscuts. On this level five veins, numbered from No. 0 to No. 4, are exposed within a width of 600 feet from north to south and a maximum length from east to west of 2,000 feet. This is the lowest level on which any stoping is done, except the veins numbered No. 3 and No. 1.

The 1,400-foot level, at an elevation of 2,900 feet above sea-level, is opened up with 260 feet of crosscuts and 100 feet of drifting.

The 1,600-foot level, at an elevation of 2,700 feet above sea-level, is opened up with 2,900 feet of drifts and 1,650 feet of crosscuts. On this level four veins, numbered No. 0 to No. 3, carrying commercial ore, are exposed within a width from north to south of about 500 feet.

The 1,800-foot level, at an elevation of about 2,500 feet, is opened up with 800 feet of crosscuts and drifts, in which the No. 3 vein, carrying commercial ore, is exposed. This level is the crusher level, at which all ore mined passes through a crusher and down the rock-raises to the 2,200-foot or main haulage level.

The 2,000-foot level, at an elevation of about 2,300 feet above sea-level, is opened up with about 150 feet of crosscuts and 100 feet of drifting on the No. 2 vein.

The 2,200-foot level, at an elevation of about 2,100 feet above sea-level, is opened up with 4,712 feet of crosscut adit, laid with 45-lb. steel rails and equipped for hauling with electric train by the trolly system. The veins numbered No. 1 and No. 3 are exposed on this level and have been drifted along for about 500 feet on each vein, thereby proving that these two veins at least are persistent to that depth.

On the 2,200-foot level is located the main mining camp, machine-shops, upper terminal of the aerial tramway, and bunkers, from which a part of the ore mined is transferred to the buckets on the aerial tramway, which has a capacity of handling about 700 tons a day. The remainder of the ore mined, or about 1,400 tons a day, is hauled by electric locomotives over three miles and a half of side-hill railroad, which has a maximum grade of 3 per cent. and leads to the head of an incline at an elevation of 1,600 feet above sea-level. This incline is 5,500 feet in length, with an average grade of approximately 30 per cent., and is equipped with standard-gauge double-track railroad, which conveys the ore from bins at the head of the incline to the concentrating-mill bins at the beach.

On the 2,700-foot level, at an elevation of about 1,600 feet, on a level with the head of the incline, an adit is being driven to intersect the main ore-zone at that depth, and when completed will be used as a haulage-way to supplement the electric railroad. This adit is at present about 3,000 feet long, 9 feet high, by 13 feet wide.

On the 4,100-foot level, at the same elevation as the top of the concentrating-mill and about 250 feet from the mill, an adit is being driven into the mountain, and is at present about 3,000 feet long, 9 feet high, by 13 feet wide. It is proposed to continue driving this adit and eventually connect it by upraises with the mine-workings on the upper levels, when it will form an important part of the transportation system between the mine and the concentrating-mill.

The "shrinkage" system of mining is followed throughout the mine, and no timbers are used except in the ore-chutes. By this method about two-thirds of the ore broken in the stopes remains there in reserve to be drawn after the stoping is finished, and in the meantime furnishes a foundation on which to set up the air-drills.

Electrical power is employed throughout the vast system of works operated by the Britannia Company. This power is generated by water-power developed by a system of reservoirs and dams on Britannia creek on the north side of Britannia mountain and Furry creek on the south, from which the water is carried by ditches and pipe-lines to the power plants. These streams drain a very extensive area of mountainous country, and each creek has several tributaries and carries a very large body of water, flowing with a fall of nearly 4,000 feet within the comparatively short distance of about three or four miles.

The water-power system is one of the most perfectly designed and substantially constructed in the Province, and the distribution of the electric current from the power plants to the various units is systematically arranged and works smoothly.

Space in this report will not permit of any attempt to describe the system in detail, but some idea of its immensity can be gathered from the statement that there are electric motors

hauling ore-trains underground as well as in the open on a switchback railway about three miles in length; hoists in the mine operated by electricity in the main shaft from the 2,200-foot level up to the 1,000-foot level or 1,200 feet vertically above the 2,200; also in the shaft from the 1,000-foot level up to the 500; while in the concentrating-mill, machine-shops, and other parts of the works all of the machinery is driven by electricity; and the towns and main mine-workings are also lighted by electricity—in fact, it is the power universally employed throughout the entire year.

The power system has been very much improved and enlarged during the past year since the concrete dam on Furry creek has been built, and the power developed there has been utilized in combination with that developed on Britannia creek.

The Britannia Mining Company was the first company in British Columbia to adopt the Mineral Separation Company's flotation process for concentrating the low-grade copper ore that occurs on the property. This was done after thorough and systematic tests had been made, to ensure that the process would give satisfactory results. The first unit was erected at Britannia Beach with a capacity to treat 1,000 tons of ore a day, and later this increased to about 2,000 tons a day, which is approximately the present capacity. Of this tonnage there is an appreciable quantity of the ore delivered on to the grizzlies at the top of the mill that is sorted out on the picking-tables and shipped to the smelter direct. The remainder is first concentrated by jigs after passing through the crushers and rolls. The product of concentrates made by jigging represents about 40 per cent. of the total product shipped to the smelter. The tailings from the jigs are transferred to the tube-mills, crushed fine, and sent to the flotation cells and the concentrates are shipped to the smelter, while the tailings, after being carried through launders, are deposited on the beach by means of a short tunnel driven from under the side of the mill to low-tide mark, so that when the tide floods the material is carried out to sea.

The mill building is designed so that gravity is employed to the fullest extent possible in handling the ore, which is delivered from the 20-ton skips on the incline railway into the ore-bins at the top of the mill, at an elevation of about 250 feet above sea-level. The ore then passes over the grizzlies, from which the undersize passes direct to the jigs and the oversize to the picking-tables, thence to the rolls and jigs, the tails from which are treated by flotation, and the concentrated product, which represents approximately 60 per cent. of the tonnage, after being dewatered is shipped to the smelter at Tacoma, Washington.

When the concentrating-mill was first erected it was considered necessary to import flint pebbles from Norway for use in the tube-mills, but later it was discovered that there was a sufficient quantity of rock mined with the ore of the necessary hardness for this use; consequently imported pebbles were displaced by the native material, and the milling costs appreciably decreased.

The power used to run all of the machinery is electric, which is generated by water-power and transformed in the power-house built near the mill building on the same level as the picking-table floor; the water, after passing through the turbine-wheels, is piped into the mill, where it is used in the jigs and flotation cells, as well as for protection against fire.

In a short report it is impossible to give a detailed description of the plant, which is as complete in every appointment as mechanical skill can devise. The mill building itself is a model worthy of being copied by any organization; it is much more roomy than such plants usually are, and consequently the ventilation is all that can be desired. Safety appliances have been installed with a consideration for the employees such as is seldom evidenced by large corporations.

The concentrates and sorted ore are transported to the smelter in the company's own steam-freighter, which was originally the lighthouse tender, the S.S. "Quadra," then owned by the Dominion Government, which was purchased some time ago by the Britannia Company, remodelled, and placed under the command of Captain Cutler, one of the veteran skippers on the Pacific Coast.

Indian River District.

The Indian River district extends from the head of that river, in the Coast range, about twelve miles south-easterly from Squamish, at the head of Howe sound, to its confluence with the North arm of Burrard Inlet, about twenty miles northerly from the city of Vancouver. So far as known at present, the mineralized zone only extends from near the head of Indian river to the *Calcdonia* group of mineral claims about eight miles down the river in a south-easterly

direction. Owing to the fact that this section is almost directly on the line of strike of the "Britannia Schist Belt," but about eight miles easterly from the *Britannia* mine-workings, and that the rock formations are somewhat similar to those surrounding the *Britannia* mine, the Indian River district has become very attractive to the prospector. During the past year a larger number of mineral claims have been staked in this section than during previous years. An examination of the more important properties in this district was made in September.

The writer started from the town of Squamish, the terminus of the Pacific Great Eastern Railway, on September 10th, and followed the old Squamish-Seymour Creek trail to the head of Stawamus creek. This trail practically parallels the creek from its mouth, near Squamish, to the forks, about three miles from its source in Stawamus lake. At the forks of Stawamus creek the trail leading down Seymour creek to its mouth, on Burrard inlet, branches towards the south, along the South fork of Stawamus creek, past Stawamus lake and Loch Lomond, in which Seymour creek has its source, while the Indian River trail follows the North fork of Stawamus creek to its source, near the summit of the Coast range, across the summit to the head of Indian river, down that river to its mouth, at the head of the North arm of Burrard inlet.

The trail from Squamish to the head of Indian river was in very bad condition, as no work, other than that done by S. A. Habrich, the owner of the *Belle* group of mineral claims, situated near the head of Indian river, has been done on it for some years past, although the route is used considerably by trappers and prospectors and was laid out by the Government as a highway more than twenty-five years ago. The trail from the summit down Indian river has had a great deal of work done on it during 1916 and 1917, and was found to be in fair condition, with all of the bridges in good shape.

The writer visited this section in 1913, when the *Belle* group of mineral claims was almost the only mineral location on Indian river or in the surrounding country, and his report was published in the Report of the Minister of Mines for that year.

The elevation of the summit where the trail crosses is 2,200 feet above sea-level, and as it is reached within about ten miles of Squamish the grade is much steeper than on the Indian River or southerly side, and the deep snow remains as a covering over the surface to a much later date in the spring of the year than on the Squamish side. In the event of productive mines being developed the ore would be transported to Burrard inlet, a distance of about twenty miles (by trail), rather than the shorter distance to Squamish over the summit.

A.B.C. Group. This group of mineral claims consists of the *A.B.C. No. 1*, *A.B.C. No. 2*, *A.B.C. No. 3*, and *A.B.C. No. 4*, situated at the head of the Indian river, about twenty miles (by trail) from the head of the North arm of Burrard inlet. The country-rock is a greenstone rendered somewhat schistose through shearing. In the west bank of the river there is an outcropping of iron-stained rock in which are visible some grains of iron pyrite and chalcopyrite disseminated through the rock, but no work has been done at that point. On the opposite side of the river an adit has been driven 30 feet in length, 15 feet of which is close timbered, and there is no evidence of any ore in the workings, unless it is behind the timber, out of sight.

There was no one on the property to guide the writer over it, but from the most reliable information he could obtain, no other work had been done on any of the claims contained in the group.

Belle Group. This group of mineral claims consists of five Crown-granted claims, known as the *Ethel*, *Rose*, *Irish Molly*, *Lucky Jack*, and *Jenny*, owned by S. A. Habrich and Peter Herress, of Squamish, B.C. A tributary of Indian river known as Canyon creek flows across the north-westerly end of the *Irish Molly* claim, and another tributary of Indian river known as Copper creek flows across the *Ethel* mineral claim. A good log cabin forms the mining camp, and is located on the *Irish Molly* mineral claim, on which most of the development-work has been done.

At a point 150 feet higher elevation than the cabin, which is 2,150 feet above sea-level, there is an adit 100 feet in length driven in a south-westerly direction through country-rock to intersect an ore-body that outcrops on the surface, about 60 feet higher in elevation than that at the portal of the adit, which apparently has not yet been driven sufficiently far. The outcropping, which the adit is expected to develop at about 60 feet depth, is about 10 feet wide and carries a good grade of chalcopyrite in a schistose gangue. In addition to the outcrop just mentioned, there

are four others on the *Irish Molly* claim to the west of it, as well as several in an easterly direction from it. These outcroppings are found at intervals along a general east-west course for a distance of about 850 feet, and so far as the surface showings indicate are not related to each other, but are apparently outcroppings of separate lenses.

The most important of these outcroppings is one which the writer sampled in 1913. The sample was taken across 25 feet in width and while it is not to be considered as an average of the showing, it represented such ore as could be roughly sorted from the ore-body, and assayed: Gold, trace; silver, 2 oz.; copper, 5.3 per cent. There is an intrusive igneous dyke occurring in this outcrop which is from 12 inches to 3 feet wide, with ore on both sides of the igneous rock. The length of the outcropping exposed by stripping is about 50 feet.

The three other outcrops referred to are exposed by shallow open-cuts. The work done is not sufficient to furnish any data as to the full extent, strike, or dip of the ore-bearing zone.

Grab samples from two of these outcroppings assayed 1.3 and 0.5 per cent. copper, with traces of gold and silver. A grab sample from another outcropping about 60 feet easterly from the outcroppings that occur directly over the adit assayed: Gold, 0.02 oz.; silver, 0.6 oz.; copper, 1.3 per cent.

On the *Ethel* mineral claim, about 400 feet from the south-easterly line of the *Irish Molly* claim, there is a wide outcrop, on the steep bank of a small creek that flows into Copper creek, of iron-stained schistose rock, in which occur particles of iron pyrite and chalcopyrite. This outcropping appears to be a separate lens from the others, but occurs in a general westerly direction from them and under very similar geological conditions.

The *Belle* group appears to be a very promising prospect, but is handicapped by lack of transportation facilities, although, if thoroughly prospected and the work demonstrated that there was an occurrence of ore of sufficient extent to warrant the installation of a concentrating plant, the property is very well located with regard to water-supply for concentrating and power purposes.

Along the bed of Copper creek in a south-easterly direction towards its confluence with the Indian river other outcroppings of iron-stained sheared rock, practically gossan, are found on the *Ethel* mineral claim. These indicate the occurrence of bodies of copper ore underlying the gossan, but apparently have no connection with the outcroppings already referred to, although there is a possibility that there may be some connection; systematic development-work would determine the question.

The bed of Copper creek is for the most part in a deep canyon which crosscuts the formation and exposes several igneous dykes which intrude into light-grey coloured rock similar to a lime silicate, but much altered and sheared. Farther down the creek there appears to have been a great fault, as the rock formation instead of striking to the east (mag.) strikes N. 10° W. (mag.). This rock is apparently a sedimentary only partially metamorphosed, as the bedding-planes are well defined, dipping easterly at about 45 degrees.

Bulliondale Group.

This group of mineral claims consists of the *Lady of the Lake* and the *Bulliondale Nos. 1, 2, 3, 4,* and *5* claims, with the *Bulliondale No. 1* adjoining the *Rose* claim of the *Belle* group on the south-easterly side. This property, owned by Robert Mungall, of Vancouver, is situated on the westerly side of the Indian river. The *Bulliondale No 1* claim is crosscut by a torrential stream called Windy creek, and the *Lady of the Lake* claim, which is separated from the *Bulliondale No. 1* by the *Bulliondale No. 2* claim, is crosscut by a smaller stream called Mungall creek. Both of these creeks are tributaries of the Indian river flowing in from the west side. The main trail down the Indian river crosses both of the creeks mentioned about 200 feet higher in elevation than the level of the river.

At an elevation of about 600 feet above the trail on the *Lady of the Lake* mineral claim, and above a rock-slide on the south bank of Mungall creek, there occurs an outcropping of gossan of considerable superficial extent, in which are impregnations of iron pyrite and chalcopyrite. The strike is south-easterly, but the dip is undetermined, and no work has been done. A grab sample assayed: Gold, trace; silver, trace; copper, 0.9 per cent.

At the head of a gulch, a tributary of Mungall creek on the north side of the creek and about 800 feet elevation above the trail, on the *Lady of the Lake* mineral claim there is an adit 100 feet in length, driven in a S. 75° W. (mag.) direction, which crosscuts three bodies of low-grade

copper minerals. The first ore is exposed near the portal of the adit and apparently is crosscut along the top. This body dips into the mountain about 30 feet from the portal of the adit. The second body of ore exposed in the adit is about 60 feet from the portal; it shows for 10 feet in width, and is drifted on to the south-easterly a short distance. A sample taken across 3 feet at the face of the drift assayed: Gold, trace; silver, trace; copper, 0.5 per cent. A third body of low-grade copper mineral is exposed near the face of the adit, where the indications show that the ore is continuing beyond the face and that the full width is not exposed.

The rock formation on the *Bulliondale* group of mineral claims is apparently a continuation of the shear-zone of igneous rock that occurs through the *Belle* group, or possibly a parallel zone. The country-rock is dark green in colour, and so is referred to in this report as greenstone; a microscopic examination would be required to give it a definite name, but in appearance it looks like a diorite.

Roy Group.

This group contains eight mineral claims, known as the *Roy Nos. 1* to *8*, inclusive, located on the east side of the Indian river, about fifteen miles above its mouth. The property is owned by the Copper Exploration and Development Company, of Vancouver, and is reached by a switchback trail constructed up the mountain-side on the east side of Indian river, that branches off from the main trail on the west side of the river, which is crossed on a good log bridge.

At an elevation of about 2,000 feet above sea-level and 1,200 feet above the bridge across Indian river the mountain-side shows evidence of considerable erosion. In this particular vicinity there are mineralized outcroppings made up mostly of chalcopyrite of somewhat marked extent, and portions of which show bodies of high-grade copper ore. The country-rock appears to be diabase, and the ore-bodies are apparently developed on the slope of the hill within a zone that in this particular vicinity has suffered so much from erosion that the hanging-wall has been entirely carried off, as well as much of the ore that underlaid it. Apparently the ore dips at about 25 degrees towards the south-east (mag.) and strikes north-east (mag.).

The development-work consists of a series of open-cuts and shallow prospect-holes made on both sides of an intrusive dyke which has its line of strike almost at right angles to that of the ore-bearing zone. There have also been three diamond-drill holes bored into the country-rock, none of which exposed any ore, but the writer is of the opinion that these holes were bored into the foot-wall below where any ore would likely be found.

Outcroppings of chalcopyrite are uncovered at intervals for a distance of about 300 feet along the apparent strike, and a width varying from a few feet to about 15 feet. The intrusive dyke appears to have exercised but little, if any, influence over the deposition of the ore. It is possible that systematic prospecting lower down the mountain-slope, below where the hanging-wall has been carried on by erosion, may expose an extension of the ore-bearing zone.

At the time of the writer's visit there was possibly about 400 tons of shipping-ore piled in dumps around the various open-cuts, which apparently would equal in grade the sample reported by Robt. Musgrave, M.E., when he examined the same property for the British Columbia Bureau of Mines in the summer of 1916, which assayed as follows: Gold, trace; silver, 1.6 oz.; copper, 12.4 per cent.

There are three other prominent groups of mineral claims on the east side of Indian river which were examined by Robt. Musgrave in 1916, known as the *Caledonia*, *Myrtle*, *Princess*, and *London*. These were not examined in 1917, for the reason that no further work had been done since Musgrave's examination, and there was no one on any of the properties representing the owners to show the locations of the workings or the outcrops. Therefore the writer postponed visiting these groups until some future time when the owners are actively operating them. According to Musgrave's report made to the Provincial Mineralogist, there are promising prospects on some of the mineral claims in these groups, but systematic prospecting is required to determine their possibilities, especially when the lack of transportation is considered.

Although there are altogether about 150 mineral claims staked and recorded in the Indian River district or belt, the writer was unable to find the owners or representatives on any other claims than those he has described; consequently no other examinations were made.

The mineralized zone in the Indian River district apparently extends for about eight miles from north-westerly to south-easterly, following the general course of the river and occupying a position nearly due east of the property of the Britannia Company, about six miles distant.

Seymour Creek District.

The portion of the Vancouver Mining Division included in the Seymour Creek district commences at North Vancouver and extends to the head of Seymour creek, at Loch Lomond, about twenty-five miles northerly from Burrard inlet. Loch Lomond is about seven miles easterly from Britannia Beach, on the eastern slope of the Britannia range of Coast mountains, and near the peak named Ben Lomond, one of the loftiest peaks in that part of the Province. Seymour Creek valley is comparatively quite narrow and the mountains on both sides rise abruptly to considerable altitudes, but the grade of the creek-bed is quite gradual, so that any trails or roadway can be constructed with easy gradients. From North Vancouver there is an automobile-road to the intake, about six miles up the creek, from which the waterworks of the city of Vancouver derives much of its supply of water for domestic use. Above the intake a trail has been constructed up the creek, which is a portion of the old trail to Squamish, at the head of Howe sound, that was used twenty-five years ago by settlers and trappers.

The section of the district that has been the most extensively prospected for minerals commences to the north of the First West fork of Seymour creek, about eighteen miles due north of the city of North Vancouver, and extends to the north of Loch Lomond. There has been, however, some prospecting done in the mountains west of the intake, where several mineral claims were staked some years ago on the divide between Seymour and Lynn creeks.

The writer visited the Seymour Creek district on July 23rd, 1917, for the purpose of examining a group of mineral claims located on the Second West fork of the creek, and but for the fact that from the best information he could obtain there were none of the claim-owners at that time working or living on any of the properties farther north, he would have continued his trip to Loch Lomond.

The Britannia Mining and Smelting Company has for some time past been paying considerable attention to mineral claims located near the head of Seymour creek, and is reported to have purchased some of the most promising prospects.

Travelling along the trail, there is little opportunity to examine the geology, as the rock formations are hidden by overburden of soil, and until the Second West fork is reached there are very few exposures of rock in-place.

Sun Group. This group, consisting of the *Rainy Day*, *Hydro*, *Sunshine*, *Sunrise*, *Sunray*, *Sunlight*, *Sundog*, and *Sunset* claims, is located on the Second West fork of Seymour creek, and is owned by R. D. Watson and Thomas Fry, of 318 Main street, Vancouver. The prospecting and development work has been chiefly confined to the *Hydro*, *Rainy Day*, and *Sunshine* mineral claims.

The creek flows through the *Hydro* and *Rainy Day* claims, with very steep banks, affording a good opportunity to drive along the strike of the mineralized zone and gain considerable backs within a comparatively short distance.

On these claims there is a wide mineralized zone in breccia country-rock, the strike of which is apparently north-westerly. The extent of this zone is at present undetermined, but from the exposures of copper minerals and iron-stained outcroppings it seems as though there is a possibility that the mineralized zone may reach a width of approximately 100 feet. The length is demonstrated to probably exceed 100 feet, as a drift-adit has been driven on the *Hydro* claim for 100 feet in length, through mineralized breccia from a point about 25 feet from the portal to the face, with mineral still showing in the face. The mineralization is a combination of impregnations of iron pyrite and chalcopyrite, of which a grab sample assayed: Gold, trace; silver, trace; copper, 1 per cent.

Open-cuts on the *Rainy Day* and *Sunshine* mineral claims expose the same character of mineralized rock, but the mineralization appears to gradually disappear, for on the *Sunshine*, near what appears to be the north-easterly boundary of mineralization, a grab sample taken from an open-cut assayed only: Gold, trace; silver, trace; copper, 0.1 per cent.

From the samples taken it would appear as though the values carried by the breccia are too low to permit of satisfactory commercial results, unless further prospecting exposes bodies of mineralized material that carry higher values in copper. The apparent considerable extent of the mineralized zone is such that further prospecting is advisable.

The present prohibitive conditions with regard to transportation would undoubtedly be removed should sufficient tonnage of ore of commercial value be developed. The conditions with regard to water-supply for concentrating as well as possibly for power purposes are excellent.

LYNN CREEK DISTRICT.

Lynn creek has its source in Lynn lake, about twelve miles north from the city of North Vancouver. The creek flows southerly to its mouth, in the Second Narrows of Burrard inlet, and roughly almost parallel to the course of Seymour creek, the mouth of which is about one mile east from the mouth of Lynn creek.

About twenty years ago there was considerable prospecting in the mountains adjacent to the creek and near its head, when a group of mineral claims was located for copper ore about three miles above the intake of the Vancouver waterworks, and later several claims were staked farther up the creek and above the forks on a discovery of zinc-blende.

The writer visited the district on August 2nd, 1917, for the purpose of examining the property of the Lynn Creek Zinc Mines, Limited, and to make a general examination of the district, but, as no one was working or living on any of the other mineral claims, the examination was confined to the one group of claims.

In 1913 the same property was examined by the Assistant Mineralogist, Mr. Galloway, and his report was published in the Report of the Minister of Mines for that year.

Lynn Creek Zinc Mines, Ltd.

The group of mineral claims owned by this company contains the following eight claims and a fraction: *Kemptville Extension*, *Evening Star*, *Pretty Bess*, *Fleming*, *Morning Star*, *Cascades*, *Jersey*, *Russell*, and *Lucky Star*. W. C. Woods is president of the company and G. Phillips is secretary, with the head office in Vancouver. The property is located on the West fork of Lynn creek, and is reached by street-car from North Vancouver to the intake, about three miles, and by pack-trail from there to the mining camp. During the past summer a logging company was engaged in constructing a logging-railroad up the creek to the forks, a distance of about four miles from the intake, and the completion of this road will remove to a great extent the transportation difficulties that exist at the present time.

The conditions on the property so far as development is concerned were found to be very similar to those described in Mr. Galloway's report, except that an effort had since been made to intersect the main ore-body with a crosscut adit at a depth of about 150 feet below the outcrop. This adit is known as the Russell tunnel; it is about 162 feet long and at the time of examination there was no ore exposed in it. A survey is necessary to determine whether the adit has been driven sufficiently far to reach the ore-body, if it maintains its continuity to the level of the adit. George Bower, one of the locators of the group, who accompanied the writer over the property, informed him that considerable surface stripping had been done since the visit of the Assistant Mineralogist. The writer does not deem it to be necessary to repeat the details of the development-work, which are fully described in the Report of the Minister of Mines for 1913, pages 307-309, and in the present report is merely giving the assay results from his samples, as well as the assay returns given in the previous report, as follows:—

Assistant Mineralogist's Samples.

Sample No.	Description.	Zinc.	Lead.	Silver.
		Per Cent.	Per Cent.	Oz.
1	No. 1 East working (15 feet)	8.3	....	Trace.
2	West side, A drive (20 feet)	10.8	....	"
3	Face of A drive (3 feet)	5.3	....	"
4	Open-cut, West ore-body (4 feet)	3.2	....	"
5	Cross-fissure (3 feet)	8.1	....	"
6	First-class ore, Pearson drive	18.4	35.0	1.4
7	Second-class ore, Pearson drive	10.3	14.4	2.8
8	Open-cut, Evening Star (4 feet)	13.7	....	Trace.
9	Open-cut, Evening Star (14 feet)	8.4	....	"
	Average	9.4	....	....

Wm. M. Brewer's Samples.

1	Broken across 20 feet from south-east wall towards north-west on East ore-outcrop	14.2	....	Trace.
2	Face of crosscut on East ore-body	5.0	....	"
3	From outcrop about 200 feet north-west from sample No. 2 and 100 feet higher elevation	21.0	....	"

A considerable tonnage of shipping-ore can be mined from the surface workings, but development at deeper levels is essential to determine the advisability or otherwise of investing the amount of capital necessary to install transportation facilities.

Jervis Inlet District.

Jervis Inlet district includes all of the western and north-western parts of Vancouver Mining Division west of and including the Sechelt peninsula, as well as the islands in Malaspina strait at the entrance to Jervis inlet, and the mountains on both sides of that inlet; also its West fork, known as Hotham sound, and the South-east fork, known as Sechelt inlet, which forms the eastern boundary of Sechelt peninsula, with Salmon and Narrows arms, which penetrate into the mainland coast towards the north-east from Sechelt inlet.

Jervis inlet penetrates into the mainland about fifty miles in a northerly direction; it is a comparatively narrow fiord, remarkably deep, with the mountains on each side rising very abruptly, and the summits reaching elevations of 5,000 to 6,000 feet within three or four miles from the shores.

Points in this district are reached by steamer or launch from Vancouver to Pender Harbour, on the west side of Sechelt peninsula, from which settlement launches can be secured to make the trip to the various camps on the inlets.

It is interesting to note that Dr. George M. Dawson, in the Reports of Progress published by the Geological Survey of Canada for 1876-77, refers to the fact that copper ore had been discovered in the mountains in this vicinity in the following language: "The most promising locality at present known is situated among the mountains between Howe sound and Jervis inlet, at a height of about 3,000 feet above the sea. Very fine specimens of purple copper ore, associated with quartz, mica, and molybdenite, are brought from this place, which is now in course of development. The country-rock is a granite or diorite of the Cascade crystalline series."

In the Annual Report, Vol. III., Part II., of the Geological Survey for 1887-88, Dr. Dawson again refers to the occurrence of copper ore in this section, as follows: "In the vicinity of the coast the copper-deposit which has received most notice is situated near the head of Salmon arm of Jervis inlet and between that inlet and Howe sound. This is owned by the Howe Copper Mining Company. The ore is chiefly bornite or purple copper ore and the deposit is not far from the coast, but at an elevation of 3,000 feet above sea-level. It was discovered about 1874 and was worked at intervals between the years 1877-83, though rather with the view of developing the property than for the actual extraction of the ore for shipment. Three levels have been driven on veins which are reported to be from 2 feet 6 inches to 3 feet 6 inches in width. Assays have shown 50 oz. of silver to the ton and 58 per cent. copper. An assay of an average specimen in the laboratory of the Geological Survey showed 40 per cent. copper. The veins traverse granitic rocks like those generally met with in the Coast ranges."

About ten days were spent in making examinations of mineral claims in this district during the past summer. No examination was made of the property referred to in the early reports by Dr. Dawson, as no work had been done on it for several years past, and no one could be found who had ever visited the claim to act as guide.

The properties examined were the *Mendella*, *Norman*, *Treasure Mountain*, and *Red Jacket* groups, on Jervis inlet, and the *Baramba* and *Jolley* groups, on Hotham sound.

Mendella Group. This group of mineral claims contains the *Mendella*, *Levinie*, *Katie*, *Della*, *Piney*, and *Ruth* claims, and is owned by Thomas Lillie and associates, of Pender Harbour. The group is located on the north shore of Princess Royal reach, in Jervis inlet, about thirty-five miles from Pender Harbour and three miles above the mouth of the Britain river. The mineral claims are located adjoining each other from south-east to north-east in the order in which they are named above, with the *Mendella* claim commencing

at the beach and extending up the mountain-slope to the southerly line of the *Levinie* claim, on which most of the prospecting-work has been done, at an elevation of about 850 feet above sea-level.

Geology.—The prevailing rocks on both sides of Princess Royal reach are metamorphosed sedimentaries with schistose structure alternating with belts of granite with gneissoid structure. On the *Mendella* group the altered sedimentaries have a width of from 300 to 400 feet in width, and are mineralized to a greater or less extent for the entire width. The mineralization is made up of particles of zinc-blende, galena, iron pyrite, and marcasite disseminated through the banded quartzose country-rock. The strike of the bedding-planes of the country-rock is north-west, with the dip of the planes 85 degrees to the south-west.

Development-work.—The development-work consists of a series of open-cuts, the largest of which is 15 feet long with the strike, 10 feet high at the face, and 10 feet wide. An average sample chipped across the face of the cut assayed: Gold, trace; silver, 0.8 oz.; copper, trace; lead, 2 per cent.; zinc, 6 per cent.

Possibilities.—A close examination of the surface, down the mountain from the work mentioned, also across the zone of altered sedimentaries at the beach, shows that there is a possibility of the zone carrying in places sufficient mineralization to warrant prospecting to ascertain whether or not some parts of the zone carry ore in quantity and quality to be of commercial value.

Norman Group.

This group of mineral claims consists of the *Norman*, *Porcupine*, and *Josie* Crown-granted claims, and the *Haskell*, *Francis*, and *Leslie* not Crown-granted. The group is owned by the Norman Copper Company; James McMurray, of Vancouver, president. At the time of the writer's visit development-work was being carried on by R. J. McLean and associates, of Vancouver, under a bond. The property is located on the west side of Prince of Wales reach, in Jervis inlet, three miles below Britain river, which flows in from the north-west. The south-easterly boundary of the claims is about one mile from the beach and is reached by a fairly good trail.

Geology.—The prevailing rock formations in the vicinity of the group of mineral claims are of an andesitic type, which are much sheared, faulted, and fissured. The north-westerly part of the property extends up a steep mountain-side to a series of red bluffs at an elevation of about 3,500 feet above sea-level. The red stain on these bluffs is so deep a colour that they make a prominent landmark which can be easily seen from the sea. The ore-bodies on the property occur in fissures in shear-zones in the igneous country-rock, which fissures appear to cut the shearing-planes almost at right angles. The strike of the ore-bearing fissure is north-westerly and that of the shearing-planes is north-easterly. The dip of the ore is south-west at a steep angle. There appears to have been much disturbance in the vicinity of the ore occurrences, and a well-defined fault occurs on the east of the main ore-body, where it is exposed at an elevation of 1,500 feet above sea-level, which apparently cuts off the ore-bearing fissure. The mineralization occurs as impregnations of iron pyrite associated with chalcopyrite, magnetite, and a little molybdenite in a breccia gangue which is very quartzose.

Development-work.—The work consists of two adits and several open-cuts on a steep mountain-side at an elevation of about 1,500 feet above sea-level. The lower adit is driven 95 feet in length in a N. 50° W. (mag.) direction. Except where the adit cuts 4 feet of low-grade ore about 60 feet from the portal, there is no mineralization showing along the main adit, but in a short drift to the easterly there is a little copper ore showing in the cleavage-planes and in narrow quartz stringers, not sufficient, however, to establish any commercial value to the property.

In the upper adit, driven about 100 feet higher elevation than the lower one just described, the mineralized zone or fissure appears to be upwards of 20 feet wide, and is partially crosscut by the open-cut approach to the adit, as well as by a few feet of the adit under cover. The total length of the main drive is 20 feet under cover, with 20 feet of open-cut approach, together with a drift about 20 feet long in an easterly direction and a drift about 10 feet long driven in a north-westerly direction. The east drift is in the country-rock, but the other drift appears to be following the strike of the ore-bearing fissure.

Samples were taken across 18 feet in the floor of the open-cut approach and a few feet beyond the portal of the adit, also across the face of the north-west drift, 4 feet wide. The first of these samples assayed: Gold, trace; silver, 1.8 oz.; copper, 1 per cent. The second sample assayed: Gold, trace; silver, trace; copper, 0.2 per cent. Both of these samples were taken

to include all of the gangue material occurring with the ore, in order to determine whether or not the entire body of gangue and mineral in the fissure could be considered of commercial value if treated by concentration.

At a point about 50 feet higher than the upper adit there is an outcropping of gossan 12 feet wide, with impregnations of chalcopyrite, iron pyrite, magnetite, and a little molybdenite in a gangue made up of breccia, very quartzose, and, judging from the surface, as no work had been done, carrying quite low-grade values. Similar outcroppings can be seen at intervals up the mountain for about 500 feet, also in the creek at about 200 feet lower elevation.

Copper Group.

This group contains seven mineral claims, known as the *Eldorado*, *Colorado*, *Portland*, *Columbia*, *Beaver*, *Coon*, and *Otter*, situated on Beaver creek, which empties into Prince of Wales reach in Jervis inlet, on the east side, about five miles south from Vancouver bay. The group is owned by H. W. Treat, of Seattle, Wash. The mineral claims are located on the southern slope of a prominent peak known as Treasure mountain, and the *Eldorado* claim adjoins the *Bonanza* Crown-granted mineral claim, surveyed as Lot No. 1870, on the south-east side.

Geology.—The prevailing rock formation in the vicinity of this group of mineral claims is either an igneous rock very much altered or metamorphosed sedimentaries, the metamorphism having been caused by the intrusion of the Coast granite, but to classify which a petrographic examination is necessary. The rock is sheared, fractured, and fissured to a very marked degree, with some of the fissures apparently of great width, which are filled with extensive bodies of solid pyrrhotite and magnetite carrying low copper values in a gangue of brecciated country-rock. The outcroppings of the mineralization occur along a line of strike apparently nearly east (true), and extend for an undetermined distance in that direction, with the cleavage-planes dipping towards the north nearly vertical.

Development-work.—A force of miners has been working continuously during the past summer, making open-cuts and driving adits to determine the extent of the mineralized zone in width as well as in depth. The occurrence of the outcroppings on the slope of the mountains offers facilities to develop the ore at depth by a series of adits driven one below the other. The highest open-cut is at an elevation of about 2,000 feet above sea-level and forms an approach to an adit driven 30 feet, mostly in gravel, but at the face a body of solid magnetite and pyrrhotite is exposed. A sample from this work assayed: Gold, trace; silver, trace; copper, 0.4 per cent.; iron, 27.5 per cent.

There is another large open-cut on the No. 2 level and two short adits at an elevation of about 70 feet lower than the work just described. This lower open-cut is about 30 x 18 feet, with its face 7 feet high, exposing solid pyrrhotite and magnetite, and in the face in two places short adits are driven, one 18 feet in length, the other 8 feet in length. A grab sample taken from the dump on this level assayed: Gold, 0.02 oz.; silver, 1.2 oz.; copper, 1.1 per cent.; iron, 33.9 per cent.

The No. 3 level is about 40 feet below the No. 2, and the work on that level consists of an open-cut approach to an adit driven about 20 feet in length as a diagonal crosscut, or nearly a drift in the ore-body. A sample taken across 4 feet in the face of the adit assayed: Gold, trace; silver, 0.8 oz.; copper, 1 per cent.; iron, 19.3 per cent. Another sample taken as a grab from the dump at this work assayed: Gold, trace; silver, 0.6 oz.; copper, 1.3 per cent.; iron, 23.4 per cent. On the No. 3 level the work is all in ore, with no rock walls exposed.

Red Jacket Group.

The property known as the *Red Jacket* is made up of two groups of mineral claims and comprises twenty-four claims in all. The groups are called the *Red Jacket* and *Prospector*. The claims are numbered from No. 1 to No. 14 in the *Red Jacket* group and from No. 1 to No. 10 in the *Prospector*. The property is owned by E. Prendergast and associates, of Vancouver, and was examined by the writer on September 22nd, 1917.

The *Red Jacket* group is situated at an elevation of about 3,500 feet above sea-level, at the head of an unnamed creek which flows into Jervis inlet from the south-east near Egmont point, and the claims are reached by following a switchback trail up the mountain from the beach for a distance of about four miles.

The most prominent outcropping of a mineralized zone occurs on the *Red Jacket No. 4* claim, near the boundary between that claim and the *Red Jacket No. 2*, where there is a ledge

or zone of schistose rock that appears to be several hundred feet in width, crosscut by the canyon at the head of the unnamed creek.

Geology.—The prevailing rock formation in the vicinity of the groups of mineral claims is a metamorphic rock that is sheared, fractured, and fissured to such a degree as to be almost a schist. The metamorphosed rock contacts with the granite of the Coast range, which forms the southerly boundary of the mineralized zone that occurs in the schistose metamorphosed rock. There are also some intrusive dykes of igneous rocks which have intruded into the schistose rocks, and will probably be found to have influenced the mineralization. The walls of the canyon, of which the schistose rocks form the bed, are exceedingly precipitous and reach an elevation of about 100 feet higher than the bed. Apparently the walls, which are heavily stained a reddish colour from iron oxides, are made up of the same schistose rock as occurs in the bed of the canyon, which appears to crosscut that formation, in which there occur zones where the fissuring is very pronounced. It is in these zones that mineralization occurs.

Mineralization.—The mineralization is most pronounced along the planes of the schistosity in the rocks, but there are also particles of chalcopyrite, iron pyrite, pyrrhotite, and specks of molybdenite occurring disseminated through the rock itself. Thorough prospecting should be done in order to determine the extent of the mineralization as well as the grade of the ore. It appears as though a very extensive body of mineralized schistose rock occurs on this property that would possibly develop into an important concentrating proposition.

Development-work.—There has been but little development attempted, except prospecting at various places on the surface where the iron-stained rock-outcrops indicated the occurrence of ore. One of such occurrences is located at an elevation of about 3,200 feet above sea-level, another about 400 feet higher elevation, and still others, farther up the canyon. It is practically impossible to sample the mineralized zone unless a great deal of time is occupied and several holes drilled and blasted; consequently the writer only took one grab sample across 6 feet of outcropping at an elevation of about 3,600 feet above sea-level, which assayed: Gold, trace; silver, 0.6 oz.; copper, 0.5 per cent. The above-mentioned sample must not be considered as an average or as representing the values that may be found generally on the property, provided thorough prospecting is carried out. It was merely taken to determine whether the iron-stained outcroppings carried any values.

Baramba Co.

The property owned by the Baramba Mining Company, Limited, consists of eight mineral claims, known as the *Evelyn*, *Leonard*, *Mary*, *Copper Princess*, *Third Chance*, *Archie*, *Silver Star*, and *Baramba*, located from the beach on the east side of and near the head of Hotham sound, back into the mountains to an elevation of about 1,500 feet above sea-level. Hotham sound is the West arm of Jervis inlet, with its entrance near the junction of Jervis inlet with Malaspina strait, and is about ten miles long.

Geology.—The rock formation is made up of metamorphosed sedimentaries which have been rendered more or less schistose from shearing movement. The rocks are fractured and fissured; some show much epidote and are feldspathic. Some of the fissures are filled with such minerals as magnetite, iron pyrite, chalcopyrite, and pyrrhotite. The mineral-bearing zone appears to confine itself to a width of about 16 feet, although the shear-zone is apparently very much wider, being estimated by the owners as 800 feet, and there is the possibility of discovering more ore-bodies, as the property has not been thoroughly prospected.

Ore Occurrences.—The main outcropping of magnetite-copper ore so far found on the property occurs on the *Third Chance* mineral claim, at an elevation of about 1,200 feet above sea-level and about one mile and a half from the beach by trail. This outcropping, which strikes about N. 70° E., has been developed by an open-cut about 80 feet long by about 12 feet wide, in which an ore-body is exposed dipping 80 degrees northerly and lenticular in structure. The mineralization in this body is generally made up of magnetite, iron pyrite, pyrrhotite, and a little chalcopyrite, but possibly specimens can be selected that carry a good grade of copper ore.

At the time of examination no samples were taken from the open-cut, because the ore exposed appeared to be of such low grade that concentration would be necessary in order to obtain a commercial product.

Attempts have been made to intersect the ore-body on levels under the outcropping at depths of about 25 feet, 50 feet, and 250 feet by driving adits at those levels. There is ore exposed in only one of the adits, that known as No. 2, in which, at a point about 100 feet from the portal, mineral is exposed for 16 feet in the adit. An average sample taken by the writer across the 16 feet assayed: Gold, trace; silver, trace; copper, 0.3 per cent.

Development-work.—The development-work consists of four adits and a series of open-cuts, as follows: Open-cut about 80 feet long by about 12 feet wide, at an elevation about 1,200 feet above sea-level; No. 1 adit, 54 feet long, at an elevation of about 1,175 feet; No. 2 adit, 152 feet long, at an elevation of about 1,150 feet; No. 3 adit, 220 feet long, at an elevation of about 975 feet; No. 4 adit, 40 feet long, at an elevation of about 100 feet and overlooking the beach.

The adits are all planned with the intention of cutting the ore-body exposed in the open-cut at the various levels, but the No. 2 adit is the only one in which the attempt has succeeded; all of the others are driven in country-rock. The No. 4 adit is a most ambitious project, as it will be necessary to drive more than 3,000 feet to reach a point where it could possibly intersect the ore-body exposed in the open-cut and No. 2 adit, at an elevation of about 1,000 feet above the level of the No. 4 adit.

Jolley Group.

There are six mineral claims in the *Jolley* group, which are known as the *Perfection*, *Don*, *Jolley*, *Copper Prince*, *Hilltop*, and *Hillside*, situated on a tributary of Baramba creek and adjoining the *Baramba* group on the north. The property is owned by Harry and C. Jolley and was being worked at the time the writer examined it (September 23rd, 1917) by Geo. A. McLeod and R. E. Marvin, of Vancouver, under a bond and lease. The property is at an elevation of about 1,900 feet and is reached by following a good switchback trail up the mountain-side from the *Third Chance* claim of the *Baramba* group.

Geology.—There appears to have been very much disturbance of the rock formation on the *Jolley* group, and several wide igneous dykes with porphyritic structure have intruded into a zone of metamorphosed sedimentaries, very much sheared, fractured, and fissured, which have a banded or gneissoid structure. Erosion has caused the formation of deep gorges or gulches in the mountain-side and has left peaks with very precipitous slopes. The occurrences of copper ore are found in close proximity to the igneous dykes, and the mineralized zone appears to be of considerable width, but sufficient work had not been done to permit of reaching any definite conclusions as to the extent of the ore-bodies. Apparently there are two distinct ore-bodies, one occurring on the *Don* claim, the other on the *Perfection* claim, but further work may demonstrate that there is a connection between them. The ore-bodies may be considered as belonging to the shear-zone type.

Mineralization.—The work so far done shows that the mineralization is a combination of magnetite, iron pyrite, chalcopyrite, and a little bornite in a gangue made up of a graphitic metamorphosed rock, with some epidote, calcite, and apparently some feldspar. The average grade of the ore-bodies is low, and suggests that concentration will be necessary in order to obtain a commercial product.

Development-work.—The development-work consists of a short adit driven at an elevation of about 1,900 feet above sea-level at the head of a gulch on the *Don* mineral claim, also another short adit driven at an elevation of about 1,700 feet on the *Perfection* mineral claim.

Samples from both of these workings were taken by the writer. The sample from the *Don* adit is a grab from the dump; this assayed: Gold, trace; silver, 0.5 oz.; copper, 2 per cent.; iron, 22 per cent. The sample from the *Perfection* adit is an average across 3 feet in the face of the adit, and assayed: Gold, trace; silver, trace; copper, 2.6 per cent.

NEW WESTMINSTER MINING DIVISION.

Owing to the demands on the writer's time in other sections of the Western Mineral Survey District, he was unable to devote as much attention to the New Westminster Mining Division during the season of 1917 as he would have liked to have done. The examinations of mineral claims made in the Division were confined to two examinations of the *Empress* group of mineral claims and an examination of the clay-deposits on Blue mountain, near Whonnock Station, on the Canadian Pacific Railway. Late in the season an attempt was made to examine a deposit of molybdenite near Cheam View Station, on the Canadian Northern Pacific Railway, but snow-storms prevented this.

Another discovery of molybdenite was reported by T. B. Hicks, of St. Elmo, on the Canadian Northern Pacific Railway. This is located about seven miles east of Agassiz Station, on the Canadian Pacific Railway, and about one mile and a half from the railway, and would have been examined by the writer at the same time as he proposed to examine the discovery reported near Cheam View Station, but owing to the severe storms at the time he had to abandon both examinations until the coming spring.

Horse Shoe, Anzac, Pay Roll, Monarch, and Steel Trust Groups.—These groups of mineral claims, containing in all twenty-four claims, are owned by Paul Briant and associates, of Vancouver. The groups are situated near the head of Pitt lake, about ten miles from the lake, and were prospected to a considerable extent during 1917 by the owners. The locations were not brought to the attention of the writer until in November, 1917, when it was too late in the season to attempt to make an examination, so it was postponed until 1918 by arrangement with Mr. Briant, who informed the writer that the minerals found on the property consisted of copper, molybdenite, magnetite, and hæmatite ores.

Lucky Four and Lucky Jack Groups.—These two groups contain in all seventeen mineral claims, situated at an elevation of about 4,000 feet above sea-level, near Jones lake, to the east of Cheam View Station, on the Canadian Northern Pacific Railway, and about ten miles from the railway. As the writer found that these groups are recorded in the Yale Mining Division in the Central Mineral Survey District, although it is a question as to whether the locations are in that Division or in the New Westminster Mining Division, he did not visit the property, but is reliably informed that considerable prospecting-work was done with diamond-drills during the past season, with very satisfactory results.

Empress Group. This group of mineral claims is situated about four miles northerly from Agassiz Station, on the Canadian Pacific Railway, which is seventy miles east from Vancouver. There are five claims in the group, four of which are Crown-granted; the fifth one was staked during 1916. The Crown-granted claims, known as *Empress Nos. 1, 2, 3,* and *4,* are amongst the oldest locations in the Mining Division and were partially developed in 1897 and 1898, since which time until last year but very little work had been done. The claim not Crown-granted is called *Empress No. 5.* The property is owned by Barclay and Alex. Bonthrone, of Vancouver.

Geology.—Agassiz is virtually at the head of the Fraser delta, its elevation being only 54 feet above sea-level. The elevation of the highest outcroppings of ore on the *Empress* group of mineral claims is about 800 feet above sea-level. The prevailing rocks are the granites of the Coast Range batholith, but on the *Empress* group there occurs a belt of limestone which contacts with the granite, and the ore-bodies are developed at that contact. The limestone is very erratic in the extent of the tongues or wedges in which it occurs, as well as along its strike and dip, and, as the ore does not appear to occur except at the immediate contact, the extent of the deposits is also very erratic.

Mineralization.—The minerals occurring in the contact deposits are chiefly chalcopyrite, with some bornite, associated with magnetite, iron pyrite, and with variable quantities of molybdenite, in a gangue of garnetite, limestone, and feldspar, the latter being usually decomposed and altered to kaolin.

Under the superintendence of C. M. McDonald the following work has been done since September, 1916: Construction of a jig-back aerial tramway 1,100 feet long connecting the No. 1 adit with the wagon-road; about one mile of wagon-road and trail from the main wagon-road; extension of the No. 2 adit, at an elevation of about 200 feet above the valley; sinking winze 8 feet deep and making drive 18 feet long in the No. 1 adit, at an elevation of 550 feet above the valley; making open-cuts on an outcrop about 50 feet above the No. 3 adit and mining ore from the cuts; building an ore-shoot 3 feet wide, 22 feet long, to connect the open-cuts with the portal of the No. 3 adit; driving the No. 2 adit 60 feet long and connecting it with the east drive in the No. 1 adit by an upraise 30 feet in height.

In the construction of the road and trail it was the intention to build a good wagon-road the whole distance between the main road to Agassiz and the mine-workings, but about an eighth of a mile from the latter point a rocky side-hill that skirted a swamp intervened and work on the road was stopped, but a trail was built across the swamp. This is constructed with corduroy where necessary, but is not sufficiently substantial for hauling heavy loads of ore over, except when sleighing is good.

Two adits or tunnels were driven several years ago, one called No. 3 or Bonthrone adit, at an elevation of about 200 feet above the valley, the other called No. 1 adit, at an elevation of about 350 feet above the No. 3. There is no evidence, so far as the writer could see, to suggest any connection between the ore-outcrops on these two levels. Bunches of chalcopyrite are cut

at each of the portals, but no ore is exposed in either of the adits beyond the portal. In a winze and drive on the easterly side of the No. 1 adit, at a point 30 feet from the portal, a lens of ore is exposed on the south side of the drive. This does not show on the opposite side, but may possibly extend southerly towards the portal. The maximum width is about 4 feet, for 18 feet, the length of the drive, and at the face the width of ore has narrowed to about 15 inches. The mineralization is chiefly chalcopyrite, but with some magnetite and garnetite associated with it. A sample representing about an average of the dump, on which there are several tons, assayed: Gold, trace; silver, 1.4 oz.; copper, 5.2 per cent.

About 30 feet below the No. 1 adit another adit, called the No. 2, is driven 60 feet in length in a north-westerly direction along a well-defined limestone wall. The adit is driven in an ore-body about 4 feet wide, made up of chalcopyrite and some magnetite in a garnetite gangue. An upraise made in ore connects the No. 2 adit with the drive on the easterly side of the No. 1.

At the portal of the No. 3 adit there is a well-defined contact between granite and limestone, with a lens of chalcopyrite in the contact, but this does not extend into the adit, although there are some indications that ore may occur lying parallel to the course of the adit on the easterly side of the portal, but no work has been done to prove it. A sample representing an average of a small dump of ore, apparently mined from the portal, assayed: Gold, trace; silver, 2.8 oz.; copper, 9.3 per cent.

The contact between granite and limestone extends up the face of the mountain for an undetermined height above the No. 3 adit, and at two points above the adit, one about 50 feet, the other about 20 feet higher, there are outcrops of chalcopyrite, with which is associated some bornite. Open-cuts have been made into both of these.

In the face of the upper cut there was a width of about 1 foot of ore, in rotten garnetite, in the contact between granite and limestone. This open-cut at the time of the examination was little more than surface stripping and not sufficiently advanced to furnish much data as to permanency of the ore.

The lower open-cut was about 15 feet square by about 16 feet high at the face, and from it several tons of charcopyrite had been quarried. There was a face of ore in the cut 4 feet wide which the writer sampled by taking an average section across the full width at one point. This assayed: Gold, trace; silver, 2 oz.; copper, 5.5 per cent.

Fire-clay and Shales.

The occurrences of fireclay and shales in a portion of the New Westminster Mining Division are of such importance, and the industry built up by the Clayburn Company that has resulted from the development of the extensive deposits has grown to such dimensions, that no report on the mineral industry is complete unless reference is made to these deposits. For that reason the following brief description of the occurrences, taken from the report of Heinrich Ries and Joseph Keele on the "Clay and Shale Deposits of the Western Provinces" in Memoir No. 24E, Canadian Department of Mines, is given:—

"*Clayburn Co., Ltd.*—One of the most interesting series of clay-deposits found in the Western Provinces is that lying in Sumas mountain, east of Clayburn, on the Seattle branch of the Canadian Pacific Railway. About 1,000 feet from the brick-works along the narrow-gauge railway is a bank of blue-grey surface clay, which is dug with a steam-shovel. This is used for common brick and is the same kind of clay that is found and worked at New Westminster.

"The first shale-outcrops are reached about two miles up the railway, in S.E. ¼ Section 31, Township 19, Sumas Municipality. At this point the shale outcrops on both sides of the track and is overlain by a coarse conglomerate composed of fragments of shale, granite, feldspar, etc. The outcrop is not of great length, but from what scant evidence there is we are inclined to believe that the shale-deposit may be of lenticular character.

"The shale is separable into two beds—viz., a lower grey shale of smooth plastic character and an upper purplish one which is harder and grittier. The former is buff-burning and on the south side of the track is at least 6 feet thick, while the upper or grey-burning shale is 4 to 6 feet thick.

"A test made of the buff-burning or lower shale, which is the one most used, showed it to be of good plasticity, and with one exception the most plastic of the Clayburn series tested. It worked up with 17 per cent. of water to a mass whose air-shrinkage was 6.1 per cent. and

average tensile strength 100 lb. a square inch. A full-sized brick cracked slightly in rapid drying. The wet-moulded bricklets behaved as follows in burning:—

Cone.	Fire-shrinkage.	Absorption.	Colour.
	Per Cent.	Per Cent.	
010	0.85	14.32	Pale salmon.
03	2.7	9.20	Buff.
1	5.0	7.0	"
5	6.0	1.43	Brownish.
9	7.0	....	Grey.
12	Thoroughly vitrified.	....	....

"A dry-pressed bricklet was good and hard at cone 05 and pink-buff colour, but in practice it is burned somewhat higher.

"The upper bed of grey-burning shale worked up with 15 per cent. of water to a moderately plastic mass, with much grit, whose air-shrinkage was 3.6 per cent. Following are the fire-tests:—

Cone.	Fire-shrinkage.	Absorption.	Colour.
	Per Cent.	Per Cent.	
010	Slightly swelled.....	15.82	Pink-white.
03	0.4	14.28	Grey.
1	1.7	11.0	"
5	3.7	3.06	"

"This is an interesting shale. It burned to a grey brick of low fire-shrinkage and low absorption, and could be used for pressed brick.

"Two miles and a half up the railway, on N.E. ¼ Section 30, Township 19, there is a shale-bank on the right side of the track which shows the following section:—

Red-burning shale	40 feet.
Coal	6 to 8 inches.
Buff-burning shale of ferruginous appearance	12 feet.

"The section extends down to the floor of the pit, which is about 15 feet above the track-level.

"The hill-slope extends upwards beyond the top of the excavation, and more shales occur higher, but these are not at present worked.

"A sample of the 40-foot bed of shale from the pit described above was tested, with the following results: It worked up with 19 per cent. of water to a mass of low plasticity and much fine grit, so that the body is somewhat short. Its air-shrinkage was 5 per cent. and average tensile strength 196 lb. a square inch. A full-sized brick stood fast drying without cracking. In burning, wet-moulded bricklets behaved as follows:—

Cone.	Fire-shrinkage.	Absorption.	Colour.
	Per Cent.	Per Cent.	
010	0.3	16.16	Red.
03	4.0	8.28	"
1	6.0	3.34	"
3	7.0	2.9	"

"The shale burned steel-hard at cone 03. This seems to be a shale of slow vitrifying qualities and is worth trying for a paving-brick, or even sewer-pipe. It would be better to weather it or mix it with more plastic material.

"A test was also made of a sample of shale underlying the above. It took 22 per cent. of water to work it up and gave a mass of good plasticity, whose air-shrinkage was 4.8 per cent. The fire tests of wet-moulded bricklets are given below:—

Cone.	Fire-shrinkage.	Absorption.	Colour.
	Per Cent.	Per Cent.	
010	2.2	15.54	Red.
03	4.0	11.93	"
1	7.0	7.57	"

"At the end of the narrow-gauge road, three miles and a half from the works, in N.W. ¼ Section 29, Township 19, Sumas Municipality, the company obtains its fireclays. The section as near as can be made out shows: —

Sandstone.
Upper fireclay ..... 8 feet.
Coal with flint-clay partings ..... 6 inches to 1 foot.
Lower fireclay ..... 7 feet.
Ferruginous clay ..... 4 feet.
China-clay ..... 10 to 15 feet.

"In mining the material no attempt has been made in the past to keep the two fireclay-beds separate, but this should be done, unless it is known that they are alike. The need of care in mining is well shown by our tests. The first of these was made on an average sample of 75 lb. collected from the stock-pile at the brick-works, and said to represent the run of the mine. This sample worked up with 16 per cent. of water to a very gritty mass of moderate plasticity, whose air-shrinkage was 3 per cent. and average tensile strength 75 lb. a square inch. In burning, the wet-moulded bricklets behaved as follows:—

Cone.	Fire-shrinkage.	Absorption.	Colour.
	Per Cent.	Per Cent.	
010	1.45	15.89	Light pink.
03	2.3	13.63	Buff.
1	3.1	12.30	"
5	3.6	10.96	"
9	4.0	9.75	"

"The clay was unaffected at cone 13, but thoroughly fused at cone 17. At cone 1 numerous small iron specks developed, and it became steel-hard at cone 5.

"At the time this sample was collected it seemed to us that the stock-pile contained a great deal of inferior material, which had been included because of carelessness in mining. In order to corroborate our results, we tested sample of best-grade fireclay taken from a bin at the mine, and found this to have a fusion-point at cone 32. We then tested a sample of firebrick made at these works for delivery at one of the British Columbia smelters, and also a sample of Glenboig brick collected at the same plant. Both of these stood cone 31. Our conclusions are that the mine on Sumas mountain contains some good fireclay, but that in mining the several beds in the deposit should be kept separate until their qualities are thoroughly known.

"The china-clay is a fine-grained, whitish shale, sometimes soft and smooth, at other times hard and porcelain-like, with a conchoidal fracture. It grades upwards into an iron-stained whitish shale. There are numerous small limonite spots scattered through it. When ground to pass through a 20-mesh sieve it worked with 16 per cent. of water to a feebly plastic mass,

whose air-shrinkage was 3.2 per cent. The wet-moulded bricklets gave the following results in burning:—

Cone.	Fire-shrinkage.	Absorption.	Colour.
	Per Cent.	Per Cent.	
010	Slightly swelled	14.57	Pinkish-white.
03	"	13.53	"
1	0.3	12.76	"
5	0.6	11.21	"
9	1.2	9.72	"

"At cone 20 the cone of china-clay was erect, but was glassy and contained many fused iron spots. It probably will not stand much above cone 22. Even at cone 03 the bricklets show many small iron spots, which are fused at cone 9. It is barely steel-hard at cone 9. It is doubtful if this clay would be suitable for anything better than boiler-brick. The iron could not be washed out of it. The clay seems to dry-press if ground fine.

"No analyses of the Clayburn materials were made for this report, but the following two may be quoted from a report on the clay industry of the Coast, published by the Provincial Mineralogist of British Columbia in the Annual Report of the Minister of Mines for 1908. No. 1 corresponds with the bed underlying the coal-parting in the fireclay-mine at the end of the narrow-gauge road, while No. 2 lies above the coal.

Silica (SiO_2)	60.85	58.80
Alumina (Al_2O_3)	35.27	30.55
Ferrie oxide (Fe_2O_3)	2.75	0.65
Lime (CaO)	0.25	None.
Magnesia (MgO)	Trace.	0.5
Alkalies (Na_2OK_2O)	1.88	...
Water and loss	...	9.50"

The report also described other occurrences of clay and shale in the vicinity of the Clayburn Company's property, owned by J. C. Maclure, which description will be found on pages 131 to 138 in the Memoir No. 24E, from which the foregoing quotations are copied.

Blue Mountain Co.

The property owned by this company consists of six mineral claims, known as the *Blue Mountain* group, situated in Section 2, Township 4, Range 4 west of the 7th meridian, about six miles northerly from Whonnock Station, on the Canadian Pacific Railway, at an elevation of about 1,200 feet above sea-level. The claims were located by George H. Turner because of the occurrence of very extensive deposits of clay and shale very similar to the clays and shales occurring in Sumas mountain, already described in this report, but owing to the lack of transportation the development of the deposits has been retarded, and the work done is limited to one adit about 60 feet long and several large open-cuts. Industrially, the owners have demonstrated that the clay and shale are well adapted for the manufacture of several grades of pottery, as well as for vitrified brick.

The extent of the deposits is very considerable, judging from the outcrops exposed by nature on two creeks which flow through portions of the property, and from the fact that above a point on Tunnel creek an adit is driven for 60 feet in length in red shale that underlies a bluish clay underlying sandstone.

There are apparently four distinct varieties of clay and shale, occurring in separate deposits. These are whitish and bluish clay and red and brown shale.

ALBERNI DISTRICT.

ALBERNI MINING DIVISION.

JOHN E. HOOSON, GOLD COMMISSIONER.

I have the honour to submit a brief annual report on mining in the Alberni Mining Division during the year ending December 31st, 1917.

Monitor Group.—Situated on the west side of the Alberni canal. This group has been continuously worked during the year, but no shipments have been made. The work has been performed on what is known as the "New Discovery vein" or "Lower Ore-zone," and consists of approximately 500 feet of drifting and crosscutting; the tunnel enters the mountain 78 feet above salt-water level and gives a vertical depth of 250 feet. This work has proven the existence of a large tonnage of shipping-ore, together with a large tonnage of concentrating-ore.

The installation of a 5-drill compressor and 60-horse-power boiler, also an ore-bunker with a capacity of 700 to 1,000 tons crude ore, is about complete; these are situated at the water's edge, below the portal of the new tunnel, and will enable the ore to be loaded from the bunker to the ship without handling.

It is the intention of the management to push further development with all speed, and to make regular shipments as soon as the preparations for same are complete.

Bunk-house and cook-camp accommodations for twenty-five or thirty men have been provided.

The average number of men employed during the year was twelve.

Marble Cove Group.—Situated on Copper island, Barkley sound. This group has been developed considerably during the year; an expenditure of over $4,000 by J. MacD. Russell, as payment for a half-interest in the group, has been made, with encouraging results. The work consisted of two tunnels of 22 and 44 feet length respectively, with numerous open-cuts, two crosscuts, and one upraise.

Big I. Group.—Situated in the Big Interior basin. The owners of this group have during the year installed a 6½-horse-power engine and erected a diamond-drill building, but have not done actual mining development, other than several open-cuts and general prospecting-work.

OFFICE STATISTICS—ALBERNI MINING DIVISION.

Mineral claims recorded	59
Certificates of work recorded	34
Bills of sale, etc., recorded	19
Free miners' certificates issued	61

CLAYOQUOT MINING DIVISION.

REPORT OF WALTER T. DAWLEY, MINING RECORDER.

I have the honour to submit the annual report on mining operations in the Clayoquot Mining Division for the year ending December 31st, 1917.

The outstanding feature for the year has been the steady development of the *Indian Chief* group of claims, situated on Sidney inlet, Clayoquot sound, by the Tidewater Copper Company under the management of Sam I. Silverman. During the latter part of the year the newly erected concentrating plant has been working day and night, and over 400 tons of copper concentrates has been shipped to Tacoma Smelter, and its value placed at over $15,000. Steady employment has been given to an average of over forty men.

Kalappa Group.—Situated on Disappointment inlet. This group consists of the four claims, *Kalappa, Golden Gate, Jack of Clubs,* and *Sninnik Fractional.* Early in the year certificates of improvements were recorded covering these claims; since then Crown grants have been issued to the owner, Mrs. Elizabeth Ann Chesterman. Further details respecting this group will be found in the report of the Minister of Mines for 1916, page 362.

ASSESSMENT-WORK.

Assessment-work has been recorded as follows:—

White Mine.—Situated on Tofino inlet and owned by William Norman Walton (who has since left with the C.E.F. overseas) and Duncan McMillan, of Bamfield, B.C. Thirty feet of open-cut, 8 feet wide; 3 feet of tunnelling, 7 x 5 feet rock; 300 feet of surface work; and about one mile and a quarter of trail. (*See also* Report of the Minister of Mines, 1916, page 362.)

War.—Situated on Kennedy lake and owned by Duncan Grant, of Clayoquot. Twenty-five feet cut rock, and earth 3 x 3 feet; widened tunnel on one side 4 x 2 feet, and other prospecting-work.

Lucky Jim.—Situated on Elk river and owned by William Spittal. Side-cut 10 x 16 feet, rock-work, and 4 feet on the ore-shoot.

Empress.—Situated on Bear river and owned by J. W. McIntosh, of New Westminster, B.C. Uncovering and stripping ore-body for a distance of 200 feet in one place and 20 feet in another.

Ex, Ten. You, and Eight.—Known as the *You* group. Situated at Bear river and owned by J. D. McLeod, of Vancouver, B.C. The work was done in the *You* claim—viz., 50 feet of tunnelling.

Northern Crown.—Situated on Clayoquot river and owned by J. E. Marten. Seven feet of tunnelling, about 3 feet 8 inches by 6 feet, and two days' stripping.

Lucky Jim.—Situated on Bear river and owned by J. D. McLeod, of Vancouver, B.C. Sinking shaft, 4 x 5 feet by 8 inches; also open-cut, 3 x 4 x 3 feet by 15 feet long.

Ivanhoe and Double Standard.—Adjoining mineral claims situated at Camp bay, Nootka, B.C. Twenty feet rock-work, 6 feet high by 6 feet wide; also 25 feet stripping on surface, and open-cut.

OFFICE STATISTICS—CLAYOQUOT MINING DIVISION.

Free miners' certificates (individual)	33
Free miners' certificate (special)	1
Mineral claims recorded	41
Certificates of work recorded	20
Certificates of improvements	4
Payments in lieu of assessment-work	2
Powers of attorney, transfers, etc., recorded	16
Other receipts issued	6

Revenue.

Free miners' certificates	$166 50
Mining receipts, general	431 00
Total	$597 00

QUATSINO MINING DIVISION.

REPORT OF O. A. SHERBERG, MINING RECORDER.

I have the honour to submit the annual report on the mining operations in the Quatsino Mining Division for the year ending December 31st, 1917.

The *Old Sport* property has been developed continuously during the year, with an average crew of about twenty-five men. The principal work consisted of sinking a winze 400 feet in the main lead and running drifts about 400 feet at that level. The ore-showing is sufficiently good to justify further development. Applications for Crown grants applied for the *Old Sport Nos. 1, 2, 4, 6, 7, 8, 9,* and *11;* the *Shamrock Nos. 1, 2,* and *3;* the *Idaho;* the *Idaho Fraction;* and the *Black Jack Fraction,* all of which belong to the same company.

At the first part of the year the progress of work and showings at the *Yreka* mine was very promising, but on account of financial troubles in the spring and early summer the work was closed down in August.

During the summer and fall a party was working with a diamond-drill on the *Teta River* property. No report of result of the work received.

With the exception of the above-mentioned properties, very little work was done beside the regular assessment-work.

Office Statistics—Quatsino Mining Division.

Mineral claims recorded	103
Certificates of work recorded	140
Powers of attorney, transfers, etc.	20
Free miners' certificates issued	107
Certificates of improvements recorded	2

NANAIMO DISTRICT.

NANAIMO MINING DIVISION.

REPORT OF S. McB. SMITH, GOLD COMMISSIONER.

I have the honour to submit herewith the annual report on the mining operations in the Nanaimo Mining Division for the year ending December 31st, 1917.

During the past year the *Marble Bay* group, situated on Texada island, shipped 11,697 tons of gold-silver-copper ore. The company employed throughout the year an average of eighty-eight men in connection with the operations.

Wm. McDonald and W. Lee bonded the *Retriever* group, Texada island, and there was shipped about 400 tons of ore. Considerable development-work has been done, including the building of a tram-line from the beach to the mine, a distance of about three-quarters of a mile, also constructing wharf and bunkers at the beach.

On the property known as the "Iron Mine property," on Texada island, a tram-line was built to the beach, also bunkers and wharf; beyond this very little work was done on the property.

The *Little Billie*, *Copper Queen*, *Cornell*, and *Loyal* (Texada island) have been leased by a Seattle syndicate, which has done some development-work preparatory to shipping.

The Valdes Island Copper Company is developing the *Ingersoll* group, on the south end of Valdes island, near Quathiaski cove.

The Santa Anna group, situated on the south end of Valdes island, near Bold point, had a little development-work done during the year, and will likely have considerable work done during the ensuing year by capitalists who have leased the property.

During the year Wm. Brewer, Resident Engineer for Western Mineral Survey District (No. 6), which includes the whole of the Nanaimo Mining Division, has examined a great many properties in this Mining Division. His report will contain descriptions and details of the important properties in this Mining Division, so I shall not attempt detailed descriptions.

With the exception of the above, very little work has been done, other than the annual assessment-work, which has been recorded on a large number of claims, as shown by the accompanying office statistics.

OFFICE STATISTICS—NANAIMO MINING DIVISION.

Mineral claims recorded	179
Certificates of work	290
Bills of sale, etc.	73
Free miners' certificates	125

Revenue.

Free miners' certificates	$1,311 00
Mining receipts, general	2,225 00
Total	$3,536 00

VICTORIA DISTRICT.

VICTORIA MINING DIVISION.

Report of Herbert Stanton, Gold Commissioner.

I have the honour to submit the annual report on the mining operations in the Victoria Mining Division for the year ending December 31st, 1917.

Lode-mining.

There has been considerable activity in mining in this Division during this past year, with already some material shipments, and if one can judge from the success met with by several of the companies in their development-work, there should be within the next few years an output of copper ore which will place this Division in the list of important copper-producing districts.

In the Cowichan Lake district the *Blue Grouse* shipped approximately 1,500 tons of ore averaging nearly 7 per cent. copper, while the *Sunnyside*, in the same locality, also made some small shipments.

The *Blue Grouse* has been bonded by the Consolidated Mining and Smelting Company, of Trail, and is now being worked by that company.

In the Sooke district, the *Margaret*, operated by a Victoria company, shipped some 600 tons of 5-per-cent. copper ore, and the indications are that during the coming year regular shipments will be made.

The *Willow Grouse* did not make any shipments this year, but has been bonded to the Ladysmith Smelting Corporation, under which company systematic operations and development has been instituted, and a programme of prospecting the property on scientific lines is already under way.

Both these properties are sufficiently near the navigable waters of Sooke harbour to permit of shipments being made by scows.

The geological formation upon which both the *Willow Grouse* and *Margaret* are located has been found to extend at least to the Jordan river, where a syndicate known as the Sunloch Mining Company, composed of R. H. Stewart, J. M. Turnbull, etc., has been opening up what promises to be a very extensive low-grade copper property within two miles from the power-station of the British Columbia Electric Company.

As the Victoria Mining Division is included within the Western Mineral Survey District, and the Resident Engineer, W. M. Brewer, is making a very detailed report thereon, it will be unnecessary for me to enter into further particulars.

Placer-mining.

I am not aware of any placer-mining having been carried on in the Division this past year, although it is possible some small amount of gold may have been taken out from the Leach, Jordan, and Sooke rivers which has not been reported.

Non-metallic Minerals.

The non-metallic minerals in this section have chiefly been utilized in some form of building material, and, as the building trade and allied industries have been nearly dormant for the past two years, this branch of the mineral industry has been seriously depressed.

Cement.—There are two large and well-equipped cement plants in the Division, both situated on Saanich inlet. The Vancouver Portland Cement Company, of Tod inlet (R. P. Butchart, president, Board of Trade Building, Victoria), made an output of Portland cement, of a value of nearly $500,000. This year's output is much larger than that of 1916, as this company also manufactured for the Associated Cement Company, whose works at Bamberton were not operated this past year.

Lime.—The Rosebank Lime Company (W. F. McTavish, manager), Esquimalt, produced burnt lime to a value of about $6,000, which is about the same as last year's output. The Lime Producers, Limited, made almost $5,000 worth of lime.

Of pottery, tile, etc., there was produced, this past year, material valued at about $40,000, chiefly by the British Columbia Pottery Company, whose plant is situated in Victoria district.

In normal times there is a large number of red brick, etc., made in this Division, but this past year it is estimated that the production would not exceed in value $20,000, produced chiefly by the Victoria Brick Company and the Sidney Island Brick Company.

OFFICE STATISTICS—VICTORIA MINING DIVISION.

Free miners' certificates issued	427
Free miners' certificates issued (special)	2
Mineral claims recorded	122
Placer claims recorded	6
Certificates of work recorded	51
Bills of sale recorded	33
Abandonments recorded	1
Certificates of improvements issued	16

Revenue.

Free miners' certificates	$3,771 25
Mining receipts, general	959 70
Total	$4,730 95

VANCOUVER MINING DIVISION.

REPORT OF A. P. GRANT, MINING RECORDER.

I have the honour to submit the following report of mining operations in the Vancouver Mining Division, from August 1st to December 31st, 1917:—

The following list gives the number and localities of the recorded claims in this Division:—

MINERAL CLAIMS.

Howe sound	54
Gambier island	19
Seymour creek (West branch)	60
Staamus lake and river	8
Furry creek	13
Lynn creek	2
Salmon arm	13
Nelson island	10
Jervis inlet	59
Sechelt peninsula	8
Pacific Great Eastern Railway	22
Indian river	33
Bowen island	5
Princess Royal reach	12
Potlatch creek	2
Capilano	15
Deserted bay, Vancouver bay	5
Daisy lake	3
Cypress creek	7
Bargain harbour	1
Mamquam river	24
Prince of Wales reach	15
Sproat mountain	13
North arm	2
English bay	4
Squaka river	10
Total	419

More prospecting has been done in the Jervis Inlet vicinity than formerly, and according to the reports from the different locators it seems a very promising locality.

The Red Jacket Development Company, Limited, was organized in November last, and intends to start development-work at once on the *Red Jacket* group, situated near Egmont point.

On the *Jolley* group, situated on the northern spur of Mount Calder, about one mile and a quarter from the easterly side of Hotham sound, development-work was carried on during the summer months by MacLeod & Marvin. Mr. Marvin states that the mineralization is very extensive and can be traced for a long distance. It consists of iron pyrite, pyrrhotite, chalcopyrite, and bornite. Two short tunnels—one 17 feet and the other 10 feet long—and several open-cuts were made. About 20 tons of shipping-ore, as well as considerable concentrating-ore, was extracted in the driving of these tunnels, but no drifting or further work was done on the ore exposed.

C. J. West, secretary of the Baramba Mining Company, Limited, states that on its property at Hotham sound, a 60-foot tunnel was run at an elevation of about 50 feet above the beach to crosscut a dyke showing in a bluff, and carrying chalcopyrite and iron pyrite ores in the open-cut. A very encouraging feature in evidence is a well-defined vein, carrying good copper ore, running through the Baramba claims, with a strike of N. 70° W. (mag.). The vein dips southerly, necessitating the location of a further four claims on the southern border of the property. This has been done, and it is the intention of the directors, as soon as the weather permits, to prospect further by open-cuts the north-westerly extensions through the property and the new locations.

Prospecting-work has been carried on by J. M. Carlyle and associates throughout the year on the *Bonanza* group, situated near Elkin's point, Gambier island. Numerous trenches and open-cuts have been made and a tunnel has been driven on the *Winnie* claim. The work done satisfies the owners that there is a large and persistent body of ore, and the assays taken run from 1 to 3 per cent. copper, with a small amount of gold and silver.

C. M. Oliver, secretary of the Bowena Copper Mines, Limited, states that development-work was carried on continuously at the *Bowena* mine, Bowen island, during 1917. A trial shipment of 10 tons of sorted ore was sent to the Ladysmith smelter, and assayed 3.38 per cent. copper, 1.16 oz. silver, and 0.12 oz. ($2.40) in gold to the ton.

G. S. Eldridge, Provincial Assayer and Metallurgist, recently sampled ten dumps on the property for the purpose of making a mill test. He obtained an average of 2.42 per cent. copper from these dumps, and his report of concentration and flotation tests shows that a profit of $2.27 a ton can be made in milling this grade of ore, with copper figured at 17 cents a pound. The company contemplates the erection of a 100-ton mill when sufficient tonnage has been blocked out. A crosscut is now being run from the main tunnel to tap the bottom of the shaft, where there is a good showing of shipping-ore.

Britannia.

The following statement concerning the operations and construction-work at the *Britannia* mines for the year 1917 has been furnished me by Mr. Donohue, secretary-treasurer of the company. The final figures are not yet available owing to delay in receipt of settlement sheets from the smelter, but the approximate results for the year in question are as follows:—

"*Operations*—

Tons mined	669,500
Tons transported to mill	672,000
Tons milled	662,000
Tons mill production shipped to smelter	57,217
Contents of above mill production—	
Lb. copper	16,325,000
Oz. silver	91,125
Oz. gold	974

"*Development.*—Footages of drifts crosscuts, etc., being development-work in the mine during the year—

Drifts	13,000
Crosscuts	7,000
Winzes	110
Chutes	2,200
Raises	10,000
Total	32,310

"The 'glory-hole' system of mining on the surface, reference to which was made in our 1916 report to you, was developed considerably during 1917, and at present we have five distinct 'glory-holes' in operation. Ore from this source is transported with one handling underground through long rock-raises to crushers on our 1,800-foot level, thence direct to the chute for loading on the 2,200-foot level. During the year electric blasting was introduced in our 'glory-hole' work and the results have been most satisfactory.

"Two tunnels through Britannia mountain to South valley, one on the 500 and the other on the 1,000-foot level, were completed prior to January 1st, 1917, and during the past twelve months another was added on the 250-foot level, and work commenced on additional ones on the 600-, 1,600-, and 1,800-foot levels.

"The supplementary rock-raise from the 2,200-foot level to the 1,000-foot level was completed during the year, and connections from the 2,000-, 1,800-, 1,600-, 1,400-, 1,200-, and 1,000-foot levels have been made to it. This raise can be used either for an ore or waste chute.

"A drift has been started west on the 2,200-foot level to connect with the 8- x 10-foot tunnel which was started from a point on Mineral creek above the head of the incline on a level corresponding with the 2,200 of the mine. The latter is known as the Daisy tunnel and has now advanced a total of 340 feet.

"More extensive development of the *Bluff* ore-body was carried on during 1917, principally on the 1,200-foot level, where a series of raises and drifts are blocking out ore for stoping operations.

"A drift has been completed connecting Jane Creek tunnel with the 1,200-foot level, thus affording a portal on this level.

"In the *Empress* mine, adjoining the *Fairview* on the east, ore is being developed by drifts, crosscuts, and raises, the principal work having been done on the 1,000-, 850-, and 700-foot levels.

"The crosscut tunnel driven south from Mineral creek on the 3,100-foot level was not advanced during the year, but a drift to the east from the crosscut progressed 367 feet.

"The 4,100-foot level, the portal of which is situated about 250 feet from the top of the Beach mill, was advanced 807 feet during 1917. This work was not carried on continuously and the face is at present 2,485 feet from the portal.

"Considerable expenditure was made in the way of prospecting on outlying claims, particularly the Queen tunnel, which was driven 326 feet; the Lanz tunnel, 630 feet; Mountain Lake tunnel, 330 feet; and the Harp tunnel, north end 750 feet and south end 420 feet; the two last-mentioned tunnels running through the *Leora*, *Tintic*, and *Mask Fr.* claims, as well as the *Harp*.

"During the last half of 1917 four diamond-drills were working on the property, drilling an aggregate footage of 8,500 feet.

"*Equipment.*—Four additional Westinghouse, oxide-cell type, storage-battery locomotives, each weighing 3½ tons, were placed in service. Additional equipment of this type is now under order, and it is the intention to utilize storage-battery locomotive haulage more extensively in future. In connection with the storage-battery locomotives, sixty 2-ton automatic side-dump cars were put into commission and orders placed for fifty more of the same type.

"The No. 2 shaft was equipped with two larger skips, giving increased hoisting capacity for both men and supplies.

"Several new shops for steel-sharpening have been installed underground to serve the workings close at hand. At present we have one each on the 250-, 500-, 850-, and 1,200-foot levels. The following drill-sharpeners are now in service: Four Sullivans, one Waugh, and eight Leyners.

"A 24 x 36 Buchanan jaw-crusher was placed in service on the 1,800-foot level to serve as an auxiliary to the 7½-K Gates gyratory crusher.

"Two new compressors have been placed in the tunnel power-house—one is a 3,600-cubic-foot Rogler type Rand compressor, a duplicate of the 1916 installation, and the other a 1,500-cubic-foot Rand cross-compound compressor. The former is driven directly by a 550-horse-power Pelton water-wheel and the latter by a synchronous motor, which is brought to speed by a Pelton water-wheel. A synchronous motor was also put in operation in the tunnel power-house to drive the 1,177-cubic-foot Rand compressor, taking the place of the Pelton water-wheel formerly in use.

"A 700-cubic-foot cross-compound Rand compressor has been placed in service at the head of the incline. This compressor is belted to the main drum-shaft of the incline lowering hoist and acts as a brake for the hoist, as well as pumping air into the main line.

"An auxiliary motor-generator set for the operation of the tunnel to incline railroad was built of the 200-k.w., a.c. generator with water-wheel and a new 600-volt, 200-k.w. Westinghouse d.c. generator.

"*New Buildings.*—Two new boarding-houses have been erected on the South Valley side of Britannia mountain—one at the 1,000-foot level, known as the Empress camp, and the other at the portal of the 1,600-foot level, known as the Beta camp. These houses are similar to those erected during the previous year at our Barbara camp, each one having accommodation for forty men and being provided with hot and cold water, heat, electric light, etc.

"At the Beach two five-room dwellings for employees were built, as well as a six-room residence, serving as dwelling and office for the Customs Inspector.

"*Construction.*—The principal construction job at the Beach during 1917 was the completion of the South Valley water project. This necessitated the building of a concrete dam at Furry creek, 207 feet in length and 77 feet in height. The water stored in this reservoir is conveyed to the Beach power-house through: 3,100 feet of tunnel, 5 x 7 feet; 200 feet of 60-inch continuous wood-stave pipe; 2,700 feet of 48-inch continuous wood-stave pipe; 2,480 feet of 42-inch continuous wood-stave pipe; 6,460 feet of 36-inch continuous wood-stave pipe; 3,000 feet of 34-inch continuous wood-stave pipe; 1,410 feet of 32-inch continuous wood-stave pipe; 680 feet of 30-inch steel pipe; 140 feet of 28-inch steel pipe; a total length of 20,170 feet.

"For service in connection with this South Valley line we installed at the Beach power-house two 3,750-horse-power Pelton water-wheels, driving two 2,500-k.w. Canadian Westinghouse Company's generators.

"The completion of this project has eliminated one of the principal sources of interference with continuous operation—namely, shortage of power—which condition formerly prevailed when the high intakes along Britannia valley were unable to serve our requirements."

No placer-mining has been carried on during the past year; but five new leases have been applied for, and the owners intend to work the properties as soon as leases are in order.

As will be seen by the following statistics, the business in this Division is increasing each year; the revenue for 1917 being over 50 per cent. in advance of the preceding year.

There is marked increase in the number of free miners' certificates issued. The numbers of claims recorded, certificates of work issued, and the surveys that have been made and recorded as work shows that a monetary interest is being taken in the mining industry.

Office Statistics—Vancouver Mining Division.

	1916.	1917.
Free miners' certificates issued	1,382	1,880
Special free miners' certificates issued	17	15
Quartz claims recorded	384	419
Abandonments recorded	10	4
Certificates of work issued	466	617
Surveys recorded as work	38	123
Receipts issued for money in lieu of work	5	28
Notices filed	44	118
Conveyances recorded	225	98
Certificates of improvement recorded	50	36
Powers of attorney recorded	1	5
Placer leases applied for	..	5
Crown grants applied for	74	35
Revenue.		
Free miners' certificates	$7,879 50	$10,402 25
Mining receipts	3,538 90	5,954 35

NEW WESTMINSTER MINING DIVISION.

REPORT OF IRVING WINTEMUTE, MINING RECORDER.

I have the honour to submit the following report of mining operations in the New Westminster Mining Division for the year ending 1917:—

The list below gives the number and vicinities of claims recorded in this Division during the past year:—

Pitt lake	69
Harrison lake	39
Stave river	10
Jones lake	89
Chilliwack river	11
Sumas river	2
Lillooet river	3
Coquitlam river	1
Kanaka creek	4
Total	228

There has been quite an increase over the previous year in the number of new claims located, and, in fact, I am pleased to say there is an improvement in the office statistics all along the line.

As you will see from the above list, the greatest activity in the New Westminster Mining Division during 1917 was around Jones lake, in the Cheam range of mountains, about thirty miles east of Chilliwack City.

Lucky Four.

Chief among the prospects developed in this vicinity is the *Lucky Four* group. I am indebted to A. S. Williamson, superintendent for Sperry & White, for the following report on this property:—

"The *Lucky Four group* consists of twelve claims, situated on the summit of the Cheam range, at the headwaters of Jones creek, about fourteen miles south of Laidlaw, on the Canadian Northern Pacific Railway, the outcroppings being at an altitude of 6,250 feet. These claims were located in the fall of 1915 by prospectors from Hope, and were bonded by Sperry & White, of Vancouver, B.C., in October, 1916.

"This discovery caused considerable excitement in mining circles owing to the size and high values of the ore-body—a huge outcrop dividing two glaciers. The ore-zone is of a contact-metamorphic type. The ore-bodies appear to have an irregular outline, though in general following the line of the granite-contact. The ore consists of a mixture of chalcopyrite, bornite, chalcocite, pyrrhotite, and pyrite, and some magnetite, occurring in a gangue of quartz and lime-silicate minerals—epidote, hornblende, pyroxene, and garnetite.

"The ore-bodies occur in the contact between the igneous rocks and the older sedimentaries. Exploratory work done this year demonstrated the continuance of the ore-bodies along the strike for 2,600 feet.

"The last ore-body uncovered was found on the south slope 600 feet below the apex of the original discovery. Work was carried on for six months, during which time a good horse-trail was built by the company into the mine from Laidlaw, a distance of fourteen miles; a considerable amount of diamond-drilling was done and open-cut work along the strike of the ore-zone, all of which produced satisfactory results.

"The company intends starting operations again in the spring, as soon as the snow settles."

Prospecting-work was performed with satisfactory results on Alexandra, Anaconda, and Butte mountains, near the head of Pitt lake, on several groups of mineral claims.

Considerable work was done on the *Empress* group, situated about three miles east of Agassiz, during the early summer, but has, unfortunately, been suspended owing to litigation. During the period of operation about 100 tons of ore was shipped to Trail smelter.

OFFICE STATISTICS—NEW WESTMINSTER MINING DIVISION.

Free miners' certificates issued (individual)	242
Free miners' certificates issued (company)	2
Free miners' certificates issued (special)	1
Mineral claims recorded	228

Abandonments recorded	3
Placer claims recorded	12
Certificates of work issued	103
Certificates of improvements issued	4
Powers of attorney recorded	12
Conveyances, etc., recorded	63
Grouping notices filed	11

Revenue.

Free miners' certificates	$1,125 00
Mining receipts	1,568 75
Total	$2,693 75

INSPECTION OF MINES.

REPORT OF GEORGE WILKINSON, CHIEF INSPECTOR.

I have the honour to submit my first annual report as Chief Inspector of Coal and Metalliferous Mines covering the year ending December 31st, 1917.

The reports of the District Inspectors relative to production of coal and coke, the number of persons employed, list of accidents and prosecutions, and a brief description of the mines in the several inspectorates, and also reports of the Instructors in Mine-rescue Work and First Aid, are hereto appended.

PERSONNEL OF STAFF OF INSPECTORS AND INSTRUCTORS.

The personnel of the staff of Inspectors and Instructors is as follows:—

Inspectors.

Geo. Wilkinson	Chief Inspector, Victoria.
James McGregor	Inspector, Nelson District.
Robert Strachan	Senior District Inspector, Fernie.
John Newton	Inspector, Nanaimo District.
Henry Devlin	Inspector, Nanaimo District.
Wm. Lancaster	Inspector, Fernie District.
J. H. McMillan	Inspector, Prince Rupert District.
H. H. Johnstone	Temporary Inspector, Nelson.

Instructors, Mine-rescue Stations.

John D. Stewart	Instructor, Mine-rescue Station, Nanaimo.
Charles O'Brien	Instructor, Mine-rescue Station, Fernie.
John Thomson	Instructor, Mine-rescue Station, Cumberland.

Organizer and Instructor, First Aid.

Dudley Michell	Instructor, Victoria.

CHANGES IN THE INSPECTION STAFF DURING THE YEAR 1917.

On April 5th Thomas Graham resigned as Chief Inspector of Mines and George Wilkinson was appointed. On August 31st, George O'Brien resigned his position as District Inspector for the North-east Kootenay District. On September 30th Thomas H. Williams resigned his position as District Inspector for the South-east Kootenay District.

In the reorganization of the inspection staff for this district, Inspector Strachan was transferred from the Nicola-Princeton District to the Crowsnest Pass District as Senior Inspector of the Crowsnest Pass District, and Wm. Lancaster was appointed as District Inspector to fill the vacancy.

The Nicola-Princeton District was divided for the remainder of the year, the coal-mines being inspected by Inspector Newton, of the Island District, and the metalliferous mines by Inspector McGregor, of Nelson.

John Thomson was appointed on November 9th as instructor and caretaker of the Mine-rescue Station at Cumberland.

TONNAGE OF COAL PRODUCED.

The total gross tonnage produced by the coal-mines of the Province for the year ending December 31st, 1917, was 2,398,715 long tons, a decrease of 86,865 from the production of 1916.

This output would have been considerably larger had not the production of the Crowsnest collieries been cut down by a strike lasting three months and a series of misfortunes. There was also a serious shortage of labour. With the exception of the Crowsnest Pass District, all the others showed an increase of production.

The Vancouver Island collieries increased their production from 1,492,761 tons in 1916 to 1,695,721 tons in 1917, an increase of 202,960 tons; this is the largest production the Vancouver Island collieries have ever made.

The Nicola-Princeton District collieries increased their production from 110,549 tons in 1916 to 151,243 tons in 1917, an increase of 40,694 tons.

The Crowsnest Pass collieries showed a decrease from 882,270 tons in 1916 to 551,751 tons in 1917, a decrease of 330,519 tons, due to the conditions mentioned above.

ACCIDENTS IN COAL-MINES.

The fatalities in and around the coal-mines during the year totalled forty-four, of which number thirty-four were killed in one accident and four in another, both of these accidents being mine explosions; the first of which occurred in No. 3 mine, Coal Creek Colliery, on April 5th, 1917, and the second in No. 6 mine, Comox Colliery, on June 3rd, 1917. This total is an increase of sixteen over 1916, due to those explosions.

The other fatal accidents which occurred during the year totalled six, a decrease of ten from that of the previous year.

There were 5,170 persons employed in and around the coal-mines.

The ratio of fatal accidents per 1,000 persons employed was 8.51, compared with 5.53 for 1916 and 10.42 for 1915. The ratio for the last ten-year period was 5.089.

The following table shows the collieries at which fatal accidents occurred during 1917, and their relation to accidents which occurred at the colliery for 1916:—

Name of Company.	Name of Colliery.	1917.	1916.
Canadian Collieries (D.), Ltd.	Comox Colliery	8	6
Canadian Collieries (D.), Ltd.	Extension Colliery	..	..
Western Fuel Co.	Nanaimo	1	3
Pacific Coast Coal Mines, Ltd.	South Wellington Colliery	..	2
British Columbia Coal Mining Co., Ltd.	East Wellington Colliery	..	..
Nanoose Collieries, Ltd	Nanoose Colliery	..	..
Middlesboro Collieries, Ltd.	Middlesboro Colliery	..	..
Merritt Collieries, Ltd.	Merritt Colliery	..	..
Inland Coal and Coke Co.	Coal Hill Colliery	..	..
Pacific Coal Syndicate.		..	..
Princeton Coal and Land Co.	Princeton Colliery	..	..
Crow's Nest Pass Coal Co.	Coal Creek Colliery	34	5
Crow's Nest Pass Coal Co.	Michel Colliery	1	12
Totals		44	28

The following table shows the various causes of the fatal accidents and their percentage of the whole, with corresponding figures for the previous year:—

Cause.	1917.		1916.	
	No.	Per Cent.	No.	Per Cent.
Fall of rock	3	6.818	7	25.000
Fall of coal	..	....	3	10.705
Haulage	2	4.545	5	17.860
Asphyxiation	..	....	1	3.570
Explosion	38	86.364	12	42.865
Miscellaneous (electrocuted)	1	2.273	..	.....
Totals	44	100.00	28	100.000

The following table shows the number of tons of coal mined for each fatal accident in their respective classes in the years 1917 and 1916:—

Cause.	1917.		1916.	
	No. of Fatal Accidents.	No. Tons mined per Fatal Accident.	No of Fatal Accidents.	No. Tons mined per Fatal Accident.
Fall of rock	3	799,572	7	355,403
Fall of coal	None.	.....	3	829,273
Haulage	2	1,199,357	5	497,564
Asphyxiation	None.	.....	1	2,487,820
Explosion	38	60,493	12	207,318
Miscellaneous	1	2,398,715	None.	.....

TONNAGE OF METALLIFEROUS MINES.

The output from the metalliferous mines for 1917 was 2,761,579 tons, being a decrease of 427,286 tons under the tonnage for 1916. This tonnage was produced from 193 shipping mines, eighty-seven of which shipped over 100 tons.

ACCIDENTS IN METALLIFEROUS MINES.

There were fifteen separate fatal accidents in and around the metal-mines during the year, causing the death of seventeen persons, being a decrease of one in number of accidents, and a decrease of three in number of fatalities compared with the figures of 1916.

There were 5,488 persons employed in and around the metalliferous mines, an increase of 183 persons compared with the figures of 1916.

The ratio of fatal accidents per 1,000 persons employed was 3.228, compared with 3.71 for 1916. The ratio for the last ten-year period was 3.449.

The mines at which fatalities occurred are:—

District.	Mine.	Number of Accidents.
Rossland	Centre Star-War Eagle	1
Kamloops	Iron Mask	1
Skeena	Anyox	3
Rossland	Le Roi	1
Osoyoos	Nickel Plate	2
Vancouver	Britannia	1
Ainsworth	Florence	1
Ainsworth	Blue Bell	3
Omineca	Rocher Déboulé	1
Boundary	Granby-Phoenix	1
Ainsworth	No. 1	1
Slocan	Hewitt	1
Total		17

Pacific Coast Coal Mines, Washery, Boat Harbour.

Pacific Coast Coal Mines, Morden Colliery.

The following table gives the cause and percentage to the whole of the fatal accidents, with corresponding figures for 1916:—

Cause.	1917.		1916.	
	No.	Per Cent.	No.	Per Cent.
Fall of ground	6	35.294	6	30.00
Falling into chutes, raises, winzes, etc	2	11.764	2	10.00
Shafts	1	5.883	1	5.00
Mine-cars and haulage	1	5.883	2	10.00
Picking or drilling into unexploded powder	2	11.764	..	.....
Asphyxiation from powder-fumes	..	.....	2	10.00
Returning on unexploded shots	..	.....	1	.....
Premature blasts	3	17.646	2	10.00
Electricity	..	.....	1	5.00
Hit with flying rock from shots on surface	..	.....	1	5.00
Broken compressed-air pipe on surface	..	.....	2	10.00
Falling material in shafts and chutes	1	5.883	..	5.00
Killed while unloading timber from wagon on surface	1	5.883	..	.....
Totals	17	100.000	20	100.00

Fall of ground caused six deaths, or 35.294 per cent. of the whole, which is an increase in percentage of 5.294 per cent. over last year, but being the same number of deaths from the same cause.

Explosives in various forms account for five lives, or 29.41 per cent., a decrease of one in number from the same cause last year.

Chute accidents caused the loss of two lives, or 11.764 per cent. of the total this year, which is the same number of lives as last year, but an increase in percentage of 1.764 over last year. Shaft accidents were responsible for one death, the same number as the previous year, but a slight increase of percentage. Mine-cars and haulage was the cause of one death, being one less than last year from the same cause, and a decrease in percentage of 4.117.

Falling material in shafts and chutes was the cause of one death, being the same number as was killed last year from the same cause, but a slight increase in percentage. One man was killed this year unloading a wagon of timber by pure carelessness; after knocking out the stakes from the side of the wagon instead of stepping to one side while the timber rolled off, he just stooped down by the side of the wagon to let the momentum of the rolling timber carry it right over him, but one of the timbers swung around and squeezed him into the wagon.

During the year the production of mineral in tons was less than 1916, but greater than 1915.

There was a general scarcity of labour, and that obtainable, generally, was less experienced than usual, considerably increasing the risk of accident.

A great deal of work has been done in both coal and metal mines in formation of safety committees with the view to educational work on prevention of mine accidents.

At some of the metalliferous mines lectures are being arranged where the more intelligent of the foreign element are educating their fellow-workmen along lines of safety first. This should be productive of good results among that class of labour.

Explosives.

During the year two supplementary orders were issued, adding to the permitted explosives contained in the previous Explosives Order No. 2 of September 8th, 1915, and supplementary of February 4th, 1916, and August 8th, 1916. The full list of explosives now on Permissible Order and Supplementary Orders are as follows:—

Monobel A1 ..... British List.
Monobel No. 1 ..... "
Dynobel No. 2 ..... "
Polar Permitite* ..... "

* Polar Permitite is known on the British List as "Super-Rippite."

Monobel*	United States List.
Monobel No. 4	" "
"Giant" Coal-mine Powder No. 5	" "
"Giant" Coal-mine Powder No. 6	" "
"Giant" Coal-mine Powder No. 7	" "
"Giant" Coal-mine Powder No. 8	" "
Polar Brushite†	" "
Vigorite No. 1	" "
Vigorite No. 2	" "
Vigorite No. 3	" "
Vigorite No. 4	" "
Miner's Friend No. 1	" "
Miner's Friend No. 2	" "
Miner's Friend No. 3	" "
Miner's Friend No. 7	" "

The following table shows the quantity of explosives used in the coal-mines during the year 1917, together with the number of shots fired, how shots were fired, tons of coal produced per pound of explosives used, and average pounds of explosive per shot fired:—

District.	Quantity of Explosives used in Pounds.	Tonnage of District.	No. of Shots fired by Electricity.	No. of Shots fired by Fuse.	Total No. of Shots fired.	Tons of Coal per Pound of Explosive.	Average Pounds of Explosive per Shot fired.
Vancouver Island	510,892	1,695,721	604,039	176,546	780,585	3.31	0.65
Nicola-Similkameen	36,883	151,243	34,960	.....	34,960	5.64	0.76
East Kootenay	14,382	551,751	10,129	433	10,562	38.36	1.36
Totals	552,157	2,398,715	649,128	176,979	826,107	4.34	0.66

The production of coal per pound of explosive used is 0.60 ton less than that of the previous year.

The Crowsnest Pass District showed an increase of 18.69 tons per pound of explosive used, the yield being 38.36 tons, compared with 19.67 for 1916.

The Nicola-Princeton District showed an increase of 1.36 tons per pound of explosive used, the yield being 5.64 tons, compared with 4.28 tons for 1916.

The Vancouver Island mines showed a decrease of 0.14 tons per pound of explosive used, the yield being 3.31 tons, compared with 3.45 tons for 1916.

Machine-mined Coal.

During the year mining-machines produced 262,507 tons of coal, or 10.94 per cent. of the whole. This is a slight decrease under the figures of 1916, when the percentage of the machine-mined coal was 11.24 per cent.

Of the total machine-mined coal, the Western Fuel Company produced 182,492 tons, or 69.52 per cent.; the Canadian Collieries (D.), Limited, 44,051 tons, or 16.76 per cent.; and the Princeton Coal and Land Company, 36,000 tons, or 13.72 per cent.

* Monobel is known on the United States List as "Monobel No. 1," but is designated "Monobel" on this list to prevent confusion with "Monobel No. 1" on the British List.

† Polar Brushite is known on the United States List as "Carbonite No. 1."

The following table gives the district, number of machines, how driven, tons of coal produced, and types of machines in use:—

District.	Number driven by		Tons of Coal produced.		Total in Tons.
	Electricity.	Compressed Air.	Electricity.	Compressed Air.	
Nicola-Similkameen	..	3	.....	36,000	36,000
Vancouver Island	5	13	44,015	182,492	226,507
Totals	5	16	44,015	218,492	262,507

Types of Machines in Use.

Type.	District.		Total.
	Nicola-Similkameen.	Vancouver Island.	
"Percussive" Post	3	8	11
"Bar" Longwall	..	5	5
"Chain" Longwall	..	5	5
Totals	3	18	21

Safety-lamps.

There were 4,176 safety-lamps in use in the coal-mines of the Province, an increase of 412 over the previous year. Of this number, 2,618 were flame-lamps of the Wolf type and 1,558 were electric lamps of various makes, an increase of 1,456 in this latter type of lamp during the year. The following table shows the distribution of lamps by districts, methods of locking, and the illuminant used:—

District.	Magnetic.	Screw or Automatic Clip.	Naphtha.	Electricity.
East Kootenay	165	960	165	960
Nicola-Similkameen	284	43	284	43
Vancouver Island	2,169	555	2,169	555
Totals	2,618	1,558	2,618	1,558

Mine-air Sampling in Coal-mines.

During the year 179 mine-air samples were taken in the coal-mines of the Province. Of this number, twenty-nine samples were spoiled in transit, accidents in laboratory, or by reason of incomplete record.

Much valuable information has been obtained from these samples relative to the flow of methane from the various coal-seams mined; from the data acquired it has been proved that the coal-seams operated by the coal-mines of the Crow's Nest Pass Coal Company, Limited, at Coal Creek and Michel, may be classed as being among the most gaseous seams being operated anywhere in the world. During the months of April, May, and June of this year, when the mines were idle in the Crowsnest Pass District, mine-air samples were taken regularly each month to determine the gas-flow while no coal was being mined. The results obtained were astonishing; in some cases the flow of gas was as large at the end of seventy days as when the mine was working, proving that the outflow of gas does not depend on the breaking of the coal alone, but is constantly being given off by the exposed surface of the coal and strata.

The following table shows the tabulated data obtained from the mine-air sampling in coal-mines during 1917:—

RETURNS FROM MINE-AIR SAMPLES TAKEN IN THE VARIOUS COAL-MINES OF THE PROVINCE OF BRITISH COLUMBIA DURING THE YEAR 1917.

Coal Creek Colliery.

Sample No.	Date.	Mine.	Ventilating District.	Mine Working or Idle.	Tonnage of Mine per Day.	Tonnage of Split per Day.	Chemical Analysis. CO_2.	O.	CH_4.	N.	Velocity of Air in Feet per Minute.	Quantity of Air in Feet per Minute.	Hygrometer. Barometer.	Dry Bulb.	Wet Bulb.	Humidity.	Cubic Feet of Methane per Minute.	Cubic Feet of Methane per Day.	Lb. of Methane per Day.	Cubic Feet of Methane per Ton of Coal mined.
82	Mar. 21	"B"	Main return airway	Working	300	....	0.11	20.53	1.13	78.23	550	37,000	25.6	47	46	92	418.0	601,920	22,331	2,006
83	" 21	"	Incline and left of slope	"	300	200	0.22	20.25	2.15	77.38	220	12,000	25.6	50	50	100	258.0	371,520	13,783	1,857
84	" 21	"	Right side of slope	"	300	100	0.05	20.61	0.86	78.48	200	8,000	25.6	47	46	92	68.0	97,920	3,632	979
94	May 2	"	Main return airway	Idle 26 days.	300	...	0.09	20.62	0.77	78.52	470	42,300	26.0	49	48	92	325.0	468,000	17,362	1,560
95	" 2	"	Right side of slope	"	300	100	0.10	20.54	1.14	78.22	200	8,000	26.0	45	44	92	91.0	131,040	4,861	1,310
96	" 2	"	Left side of slope	"	300	200	0.04	20.76	0.44	78.76	200	12,000	26.0	50	49	93	52.0	74,880	2,778	374
106	June 5	"	Main return airway	Idle 61 days.	300	....	0.08	20.66	0.62	78.64	280	28,000	26.0	49	48	92	173.0	249,120	9,242	830
107	" 5	"	Right side of slope	"	300	100	0.04	20.79	0.32	78.85	75	6,500	26.0	47	45	85	21.0	30,240	1,121	302
108	" 5	"	Left side of slope	"	300	200	0.10	20.56	1.04	78.30	210	12,000	26.0	49	49	100	125.0	180,000	6,678	900
137	Nov. 20	"	Incline split	Working	300	140	0.19	20.21	2.37	77.23	200	14,000	26.0	52	51	93	331.0	476,640	17,683	3,404
138	" 20	"	Slope split	"	300	160	0.21	20.42	1.59	77.78	140	9,400	26.0	53	53	100	149.0	214,560	7,960	1,341
139	" 20	"	Main return airway	"	300	....	0.17	20.49	1.54	77.80	400	31,000	26.0	52	51	93	477.0	686,880	25,483	2,289
85	Mar. 21	No. 1 North	"	"	150	....	0.29	20.27	0.28	79.16	500	33,000	25.6	56	54	87	92.0	132,480	4,915	883
97	May 2	"	"	Idle 26 days.	150	....	0.26	20.44	0.18	79.12	500	36,000	26.0	56	56	100	64.0	92,160	3,419	614
112	June 15	"	"	Idle 71 days.	150	....	0.25	20.42	0.11	79.22	650	36,400	26.2	56	54	87	40.0	57,600	2,136	384
136	Nov. 20	"	"	Working	210	....	0.16	20.56	0.51	78.77	100	9,300	25.7	58	58	100	47.0	67,680	2,510	322
98	May 2	No. 1 South	"	Idle 26 days.	500	....	0.36	19.80	1.56	78.28	600	24,000	26.0	58	58	100	374.0	538,560	19,980	1,077
111	June 15	"	"	Idle 71 days.	500	....	0.27	20.10	1.07	78.56	520	26,000	22.2	60	58	88	278.0	400,320	14,851	800
127	Oct. 23	"	Main return airway; time, 11 a.m.	Working	700	...	0.15	20.09	2.20	77.56	300	22,500	25.5	56	54	87	495.0	712,800	26,444	1,018
128	" 23	"	Main return airway; time, 2.30 p.m.	"	700	....	0.13	20.09	2.24	77.54	300	22,500	25.5	56	54	87	504.0	725,760	26,925	1,036
130	" 23	"	Main return airway; time, 9.10 p.m.	"	700	....	0.15	20.03	2.58	77.24	300	22,500	25.5	56	54	87	580.0	835,200	30,985	1,193
149	Dec. 19	"	Main return airway	"	650	....	0.12	20.29	1.52	78.07	430	32,250	24.8	53	53	100	489.0	704,160	26,124	1,083
93	Mar. 23	No. 1 East	No. 10 East	"	650	620	0.18	19.89	2.78	77.15	310	24,800	25.8	46	45	92	689.0	992,160	36,809	1,600
102	May 3	"	"	Idle 27 days.	650	620	0.12	20.49	1.37	78.02	230	18,400	26.0	48	47	92	252.0	362,880	13,462	558
103	" 3	"	Main return airway	"	650	....	0.09	20.54	0.99	78.38	1,700	136,000	26.0	46	45	92	1,346.0	1,938,240	71,908	2,980
109	June 5	"	No. 10 East	Idle 61 days.	650	520	0.10	20.32	1.59	77.99	500	36,000	26.0	56	50	75	572.0	823,680	30,558	1,267
110	" 5	"	Main return airway	"	650	...	0.09	20.43	0.85	78.63	1,750	140,000	26.0	49	48	93	1,190.0	1,713,600	63,574	2,636
113	" 15	"	No. 10 East	Idle 71 days.	650	....	0.07	20.46	1.35	78.12	300	16,800	26.2	54	52	86	227.0	326,880	12,127	502
125	Oct. 17	"	"	Working	600	....	0.18	19.89	3.04	76.89	620	49,650	26.2	62	62	100	1,507.0	2,170,080	80,509	3,616
126	" 23	"	No. 10 East; time, 8.30 a.m.	"	600	....	0.20	19.98	2.81	77.01	200	16,000	26.0	56	53	81	449.0	646,560	23,977	1,077
129	" 23	"	No. 10 East; time, 3.30 p.m.	"	600	...	0.19	20.00	3.01	76.80	200	16,000	26.0	56	53	81	481.0	692,640	25,696	1,154
131	" 23	"	No. 10 East; time, 10 p.m.	"	600	...	0.19	19.90	3.38	76.53	200	16,000	26.0	56	53	81	540.0	777,600	28,848	1,296
143	Dec. 12	"	Main return airway	"	600	....	0.12	20.52	0.90	78.46	1,000	140,000	25.9	62	62	100	1,260.0	1,814,400	67,314	3,024
144	" 12	"	South side split	"	600	200	0.11	20.40	1.12	78.37	700	79,800	25.9	48	48	100	893.0	1,285,920	47,707	6,429
145	" 12	"	North side split	"	600	400	0.11	.....	0.92	.....	700	56,000	25.9	50	50	100	515.0	741,600	27,513	1,854
99	May 2	No. 2	Main return airway	Idle 27 days.	300	....	0.22	20.43	0.72	78.63	600	42,000	26.0	55	54	93	302.0	434,880	16,134	1,449
105	June 4	"	"	Idle 60 days.	300	...	0.23	20.36	0.59	78.82	600	39,600	26.0	54	53	93	233.0	335,520	12,447	1,118
141	Nov. 22	"	Rock tunnel split	Working	250	200	0.21	20.25	1.49	78.05	100	9,600	26.2	60	60	100	143.0	205,920	7,639	1,029
142	" 22	"	High Line split	"	250	50	0.09	20.74	0.47	78.70	160	4,800	26.4	43	43	100	22.0	31,680	1,175	633
90	Mar. 23	No. 3	South level	"	350	....	0.38	19.87	3.43	76.32	145	13,000	25.8	59	57	88	445.0	640,800	23,773	1,830
91	" 23	"	Main return airway, S. level, excluding last three places on air	"	350	....	0.34	20.08	1.28	78.30	670	53,000	25.8	62	62	100	678.0	976,320	36,221	2,789
92	" 23	"		"	350	310	0.23	20.23	1.99	77.55	220	17,160	25.8	58	57	93	340.0	489,600	18,164	1,579
104	June 7	"	South level at Draper's slope*	Idle	.....	....	0.10	20.54	0.98	78.38	500	33,000	26.0	57	55	93	323.0	465,120	17,255	.....
122	Oct. 11	"	Main return at Draper's slope*	"	.....	....	0.07	20.51	0.83	78.59	500	35,000	26.1	66	61	73	290.0	417,600	15,492	.....
123	" 11	"	Main return near fan*	"	.....	....	0.25	20.31	0.55	78.89	700	58,000	25.9	66	61	73	319.0	459,360	17,042	.....

* Mine idle since April 5th, 1917.

Michel Colliery.

68	Mar. 7	Old No. 3	No. 2 slope split	Working	190	....	0.14	20.24	1.96	77.66	400	24,000	26.3	50	49	93	470.0	676,800	25,109	3,562
70	" 7	"	West incline split (idle since 1915)	"	190	....	0.05	20.78	0.17	79.00	100	6,000	26.3	46	46	100	10.0	14,400	534	75
71	" 7	"	Main return airway	"	190	....	0.16	20.30	1.48	78.06	800	80,000	26.3	46	46	100	1,184.0	1,704,960	63,254	8,973
81	April 4	"	No. 3 slope split	Idle 96 hours	190	190	0.13	20.33	1.62	77.92	700	28,000	26.0	46	46	100	453.0	652,320	24,201	3,433
82	" 4	"	Main return airway	"	190	....	0.15	20.29	1.48	78.08	800	80,060	26.0	48	46	85	1,184.0	1,704,960	63,254	8,973
89	May 3	"	No. 3 slope split	Idle 33 days.	190	....	0.13	20.56	1.53	77.78	800	32,000	25.7	47	47	100	489.0	704,160	26,124	3,706
90	" 3	"	Old works on east side	"	190	...	0.15	20.42	2.00	77.43	400	24,000	25.7	50	50	100	480.0	691,200	25,643	3,637
91	" 3	"	Main return airway	"	190	....	0.19	20.50	1.55	77.76	850	85,000	25.7	48	48	100	1,317.0	1,896,480	70,359	9,981
95	June 5	"	No. 3 slope split	Idle 66 days.	190	....	0.12	20.41	1.04	78.43	750	30,000	26.0	48	48	100	312.0	449,280	16,668	2,364
96	" 5	"	Old works on east side	"	190	....	0.11	20.36	1.71	77.82	400	28,000	26.0	51	51	100	479.0	689,760	25,590	3,630
97	" 5	"	Main return airway	"	190	....	0.15	20.29	1.08	78.48	760	76,000	26.0	49	49	100	821.0	1,182,240	43,861	6,222
110	Oct. 4	"	Return from Nos. 1 and 2 slopes	Idle 7 mos.	190	....	0.20	20.15	1.89	77.76	270	11,340	26.2	59	56	85	213.0	306,720	11,379	.....
112	Nov. 20	"	" "	Idle 8 mos.	190	....	0.19	20.21	1.45	78.15	400	20,000	26.2	62	62	100	290.0	417,600	15,492	.....
113	" 20	"	Main return airway	"	190	....	0.17	20.41	0.93	78.49	660	59,400	26.2	60	60	100	552.0	794,880	29,490	.....
76	Mar. 9	No. 3 East	No. 6 East split	Working	100	100	0.06	20.61	0.78	78.55	700	46,200	25.9	44	44	100	360.0	518,400	19,232	5,184
78	" 9	"	Main return airway	"	100	....	0.06	20.62	0.83	78.49	1,300	91,000	25.9	41	41	100	755.0	1,087,200	40,335	10,872
83	April 4	"	No. 6 East split	Idle	100	100	0.08	20.58	0.79	78.55	700	42,000	26.0	42	42	100	331.0	476,640	17,683	4,766
84	" 4	"	Main return airway	"	100	....	0.05	20.60	0.90	78.45	1,350	94,500	26.0	43	43	100	850.0	1,224,000	45,410	12,240
92	May 3	"	No. 6 East split	Idle 33 days.	100	100	0.08	20.61	0.76	78.55	800	48,000	25.7	44	44	100	364.0	524,160	19,446	5,241
93	" 3	"	West side split	"	100	....	0.07	20.65	0.77	78.51	700	42,000	25.7	42	42	100	323.0	465,120	17,225	4,651
94	" 3	"	Main return airway	"	100	....	0.05	20.62	0.87	78.46	1,300	91,000	25.7	42	42	100	791.0	1,139,040	42,258	11,390
98	June 5	"	No. 6 East split	Idle 66 days.	100	100	0.09	20.57	0.74	78.60	750	49,500	25.8	45	45	100	366.0	527,040	19,553	5,270
99	" 5	"	West side split	"	100	....	0.06	20.65	0.73	78.56	650	42,900	25.8	44	44	100	313.0	450,720	16,721	4,507
100	" 5	"	Main return airway	"	100	....	0.07	20.62	0.77	78.56	1,300	104,000	25.8	44	44	100	801.0	1,153,440	42,792	11,534
109	Oct. 4	"	"	Working	200	..	0.13	20.49	0.93	78.45	1,400	101,500	26.1	49	49	100	944.0	1,359,360	50,432	6,796
114	Nov. 21	"	No. 6 East split	"	380	200	0.09	20.39	1.11	78.41	410	36,000	26.2	62	62	100	399.0	574,560	21,216	2,872
115	" 21	"	West side split	"	380	160	0.09	20.54	1.07	78.30	300	12,600	26.5	54	54	100	134.0	192,960	7,158	1,206
116	" 21	"	Main return airway	"	380	....	0.12	20.43	1.24	78.21	1,050	69,300	26.3	50	50	100	859.0	1,236,960	45,891	3,255
72	Mar. 8	New No. 8	No. 6 incline split	"	430	205	0.58	20.02	0.24	79.16	200	10,000	25.4	52	50	86	24.0	34,560	1,282	168
73	" 8	"	No. 4 incline split	"	430	75	0.04	20 81	0.06	79.09	120	12,000	25.4	45	45	100	7.0	10,080	373	134
75	" 8	"	Main return airway	"	430	....	0.07	20.73	0.13	79.07	750	47,250	25 4	42	42	100	61.0	87,840	3,258	204
85	April 5	"	No. 6 incline split	Idle 5 days.	430	205	0.15	20.28	0.46	79.11	340	10,200	25.3	52	50	86	47.0	67,680	2,510	394
86	" 5	"	No. 4 incline split	"	430	75	0.05	20.68	0.11	79.16	300	10,800	25.3	48	46	85	12.0	17,280	641	230
87	" 5	"	No. 1 incline split	"	430	150	0.09	20.59	0.18	79.14	250	15,000	25.3	44	42	84	27.0	38,880	1,442	259
88	" 5	"	Main return airway	"	430	....	0.09	20.55	0.19	79.17	700	44,100	25.3	40	40	100	83.0	119,520	4,434	277
101	June 5	"	No. 6 incline split	Idle 66 days.	430	205	0.34	20.22	0.28	79.16	100	10,000	25.4	54	52	86	28.0	40,320	1,495	196
102	" 5	"	No. 4 incline split	"	430	75	0.18	20.31	0.24	79.27	300	10,800	25.4	46	46	100	26.0	37,440	1,389	499
103	" 5	"	No. 1 incline split	"	430	150	0.10	20.76	0.06	79.08	250	15,000	25.4	44	44	100	9.0	12,960	480	86
104	" 5	"	Main return airway	"	430	....	0.20	20.43	0.17	79.20	700	44,100	25.4	42	42	100	75.0	108,000	4,006	251
108	Oct. 4	"	"	Working	460	....	0.07	20.68	0.10	79.15	870	52,200	25.7	50	49	93	52.0	74,880	2,778	162

Corbin Colliery.

79	Mar. 27	No. 4	400 level	Working	200	200	0.11	20.59	0.91	78.39	120	12,000	23.9	40	40	100	109.0	156,960	5,823	784
106	Sept. 17	"	500 level	"	220	....	0.10	20.66	0.38	78.86	180	18,000	24.4	47	47	100	68.0	97,920	3,632	443

Nicola-Similkameen District.

24	May 21	Princeton No. 1	Main return airway	Working	110	....	0.12	20.53	0.39	78.96	340	24,200	27.7	53	52	93	94.0	135,360	5,211	1,230
30	Aug. 11	"	"	"	120	....	0.10	20.60	0.27	79.03	260	23,400	27.9	56	55	90	63.0	90,720	3,492	756
25	June 4	Middlesboro No. 4	"	"	100	....	0.12	20.65	0.05	79.18	220	23,700	28.2	52	51	93	12.0	17,280	665	172
26	" 4	Middlesboro No. 4, E.	"	"	60	....	0.09	20.79	0.03	79.09	260	19,500	28.2	53	52	93	6.0	8,640	332	144
27	" 5	Middlesboro No 7	"	"	160	....	0.06	20.72	0.16	79.06	600	30,000	27.8	50	50	100	48.0	69,120	2,661	432

RETURNS FROM MINE-AIR SAMPLES TAKEN IN COAL-MINES—*Concluded.*

Coast District.

Sample No.	Date.	Mine.	Ventilating District.	Mine Working or Idle.	Tonnage of Mine per Day.	Tonnage of Split per Day.	Chemical Analysis. CO_2.	Chemical Analysis. O.	Chemical Analysis. CH_4.	Chemical Analysis. N.	Velocity of Air in Feet per Minute.	Quantity of Air in Feet per Minute.	Hygrometer. Barometer.	Hygrometer. Dry Bulb.	Hygrometer. Wet Bulb.	Hygrometer. Humidity.	Cubic Feet of Methane per Minute.	Cubic Feet of Methane per Day.	Lb. of Methane per Day.	Cubic Feet of Methane per Ton of Coal mined.
51	April 23	No. 1 North side	N. of No. 1 slope, N.E slope, and S. of No. 2 slope	Working	900	272	0.15	20.33	0.11	79.41	900	27,000	30.1	62	61	94	29.0	41,760	1,787	153
52	" 23	"	N.E. slope, No. 1 slope	"	900	160	0.32	20.00	0.23	79.45	400	24,000	30.1	68	68	100	55.0	79,200	3,389	495
53	" 23	"	No. 3 slope and N. side of No. 2 slope	"	900	468	0.87	18.61	0.80	79.72	330	17,160	30.1	61	59	93	136.0	195,840	8,381	418
63	Oct. 11	"	Newcastle level	"	720	280	0.31	20.24	0.31	79.14	200	12,000	30.3	60	60	100	37.0	53,280	2,280	190
64	" 11	"	Nos. 1 and 2 slopes	"	720	440	0.19	20.50	0.11	79.20	800	32,000	30.3	60	60	100	35.0	50,400	2,158	114
65	" 11	"	Main return airway	"	720	....	0.15	20.47	0.09	79.39	750	30,000	30.3	61	59	88	27.0	38,880	1,664	149
42	Feb. 12	No. 1 South side	"	"	650	....	0.29	20.12	0.30	79.29	1,000	50,000	30.5	66	64	88	150.0	216,000	9,244	332
44	" 12	"	No. 2 split	"	650	240	0.12	20.46	0.25	79.17	260	10,410	30.5	64	62	88	26.0	37,440	1,602	156
45	" 12	"	S.E. heading and No. 6 South	"	650	290	0.17	20.31	0.30	79.22	240	14,400	30.5	62	62	100	43.0	61,920	2,650	213
59	Sept. 6	"	Main return airway	"	800	....	0.35	19.97	0.30	79.38	800	48,000	30.1	65	65	100	144.0	207,360	8,875	259
41	Jan. 23	Reserve	"	"	500	....	0.04	20.71	0.10	79.15	1,000	80,000	30.2	54	52	86	80.0	115,200	4,930	230
46	Mar. 12	"	No. 1 split, East side	"	600	240	0.06	20.69	0.07	79.18	420	33,600	29.9	55	54	93	23.0	33,120	1,417	138
47	" 12	"	No. 2 split, East side	"	600	180	0.04	20.78	0.07	79.11	212	17,000	29.9	57	56	93	11.0	15,840	677	88
48	" 13	"	No. 1 split, West side	"	600	100	0.05	20.70	0.51	78.74	220	17,000	30.0	55	53	86	86.0	123,840	5,300	1,238
49	" 13	"	No. 2 split, West side	"	600	80	0.05	20.70	0.08	79.17	180	14,400	30.0	56	54	86	11.0	15,840	667	198
58	July 25	"	Main return airway	"	500	....	0.07	20.73	0.14	79.06	1,150	86,250	30.2	59	59	100	120.0	172,800	7,395	345
62	Sept. 20	Harewood	"	"	300	....	0.07	20.72	0.07	79.14	250	10,000	28.9	52	50	86	7.0	10,080	431	33
50	Mar. 15	E. Wellington	"	"	360	....	0.13	20.61	0.14	79.12	860	51,600	29.3	57	55	87	72.0	103,680	4,437	345
56	June 22	"	No. 1 split	"	250	60	0.07	20.71	0.07	78.96	300	18,000	30.0	57	55	87	47.0	67,680	2,896	1,128
57	" 22	"	No. 2 split	"	250	190	0.14	20.64	0.12	79.10	670	30,150	30.0	62	61	94	36.0	51,840	2,218	272
54	May 3	Morden	Main return airway	"	504	....	5.06	20.45	0.66	78.83	500	40,000	30.0	52	50	86	264.0	380,160	16,270	754
61	Sept. 13	"	"	"	400	....	0.07	20.69	0.47	78.77	700	49,000	29.9	56	56	100	230.0	331,200	14,175	828
55	June 9	Grant	"	"	95	....	0.98	20.80	0.04	79.08	350	8,750	30.1	49	48	92	3.0	4,320	184	45
61	Aug. 24	Extension No. 1	East side split	"	140	70	0.29	20.51	0.05	79.15	250	11,250	29.7	....	....	....	5.6	8,064	345	115
62	" 24	"	West side split	"	140	70	0.17	20.51	6.08	79.24	180	9,900	29.7	....	....	....	8.0	11,520	493	164
70	Oct. 23	"	Main return airway	"	77	....	0.29	20.45	0.06	79.20	600	32,400	29.3	....	....	....	19.0	27,360	1,171	355
63	Aug. 24	"	"	"	140	....	0.35	20.39	0.09	79.19	520	29,120	29.7	....	....	....	26.0	37,440	1,602	267
48	June 26	Extension No. 2	No. 2 East split	"	210	38	0.40	19.93	0.08	79.59	310	6,820	29.8	....	....	....	5.4	7,776	332	204
49	" 26	"	West side split	"	210	96	0.45	19.66	0.35	79.54	300	9,000	29.8	....	....	....	31.5	45,360	1,940	472
50	" 26	"	No. 4 East split	"	210	76	0.38	20.28	0.03	79.31	500	12,000	29.8	....	....	....	3.6	5,184	221	68
51	" 26	"	Main return airway	"	210	....	0.39	20.14	0.08	79.39	600	30,000	29.8	....	....	....	24.0	34,560	1,479	164
67	Oct. 17	"	"	"	230	....	0.36	20.05	0.09	79.50	500	30,000	29.5	....	....	....	27.0	38,880	1,664	169
41	April 24	Extension No. 3	No. 2 split	"	275	100	0.05	20.69	0.42	78.84	300	9,600	29.8	....	....	....	40.0	57,600	2,465	576
42	" 24	"	No. 1 split	"	275	175	0.61	19.59	0.19	79.61	275	11,550	29.8	....	....	....	22.0	31,680	1,355	182
43	" 24	"	Main return airway	"	275	....	0.47	19.84	0.18	79.51	350	26,250	29.8	....	....	....	47.0	67,680	2,896	246
68	Oct. 17	"	"	"	250	....	0.39	19.92	0.19	79.50	520	28,080	29.5	....	....	....	53.0	76,320	3,266	305
64	Aug. 28	Extension No. 4	East side split	"	400	225	0.05	20.80	0.06	79.09	520	26,100	29.6	....	....	....	15.5	22,320	955	99
65	" 28	"	Main return airway	"	400	....	0.08	20.77	0.07	79.08	680	47,600	29.6	....	....	....	33.3	47,952	2,052	120
66	" 28	"	West side split	"	400	175	0.07	20.74	0.16	79.03	350	16,500	29.6	....	....	....	26.4	38,016	1,627	217
69	Oct. 18	"	Main return airway	"	450	....	0.06	20.79	0.09	79.06	750	45,000	29.6	....	....	....	40.0	57,600	2,465	128
40	Feb. 12	Comox No. 4	No. 1 slope split	"	850	340	0.19	20.24	0.87	78.70	750	33,750	29.6	....	....	....	293.0	421,920	15,058	1,240
44	May 5	"	"	"	750	271	0.25	20.00	1.25	78.50	430	24,080	29.6	....	....	....	300.0	432,000	18,489	1,597
45	" 5	"	East side, No. 2 slope	"	750	239	0.37	19.79	1.57	78.27	650	22,750	29.6	....	....	....	356.0	512,640	21,940	2,144
46	" 5	"	West side, No. 2 slope	"	750	240	0.10	20.57	0.20	79.13	600	18,000	29.6	....	....	....	36.0	51,840	2,218	216
47	" 5	"	Main return airway	"	750	....	0.48	19.64	0.71	79.17	2,000	120,000	29.6	....	....	....	852.0	1,226,880	52,510	1,635
72	Nov. 10	"	"	"	650	....	0.65	19.21	1.09	79.05	2,200	158,400	29.4	....	....	....	1,726.0	2,485,440	106,376	3,823
57	Aug. 10	Comox No. 5	West side split	"	800	125	0.10	20.69	0.10	79.11	680	20,400	29.8	....	....	....	20.0	28,800	1,232	230

58	Aug.	10	Comox No. 5	Main return airway	Working	800	....	0.10	20.57	0.13	79.20	1,500	120,000	29.8	...	....	...	156.0	224,640	9,614	280
59	"	10	"	East side of No. 1 dip	"	800	512	0.10	20.64	0.25	79.01	370	22,200	29.8	....	....	....	45.0	64,000	2,773	126
60	"	10	"	West side of No. 1 dip	"	800	163	0.05	20.82	0.04	79.09	400	20,000	29.8	....	....	....	8.0	11,520	493	70
73	Nov.	16	"	Main return airway	"	600	....	0.13	20.38	3.31	79.18	1,500	120,000	29.8	....	....	....	372.0	535,680	22,927	892
52	July	11	Comox No. 7	"	"	310	...	0.11	20.62	5.24	79.03	1,500	144,000	30.0	....	....	....	345.0	496,800	21,263	1,602
53	"	11	"	No. 1 East split	"	310	42.5	0.13	20.65	0.17	79.05	350	25,200	30.0	....	....	....	42.0	60,480	2,588	1,423
54	"	11	"	No. 2 East split	"	310	94.5	0.07	20.79	0.05	79.09	400	14,400	30 0	....	....	....	7.0	10,080	431	106
55	"	11	"	No. 1 West split	"	310	29.0	0.12	20.59	0.29	79.00	400	16,000	30.0	....	....	....	46.0	66,240	2,835	2,284
56	"	11	"	No. 2 West split	"	310	144	0.17	20.35	0.48	79.00	480	14,400	30.0	....	....	....	69.0	99,360	4,252	690
71	Nov.	8	"	Main return airway	"	300	....	0.12	20.63	0.24	79.01	2,000	120,000	29.8	....	....	...	288.0	414,720	17,750	1,382

NOTE.—In compiling the above tables it has been necessary, in cases where the samples were taken when a mine was idle, to assume the output of a working-day, so that the relative cubic feet of methane per ton of coal mined could be computed.

OUTBURST OF "BUMPS," AND AIR-BLASTS.

On November 8th, 1917, a blow-out of coal and gas occurred in No. 1 East mine, Coal Creek Colliery; details of same as furnished by Inspector Strachan are herewith given:—

"*Report of Blow-out in No. 1 East Mine, Coal Creek Colliery, on the Morning of November 7th, 1917.*

"I have the honour to confirm my telegram of the 7th inst.: 'Blow-out in No. 3 North room, No. 1 East, Coal Creek, about 2.20 a.m. this morning, displacing about 100 tons fine coal and liberating large body of gas. Workmen all safe.'

"The blow-out caused quite a panic in the mine, the workmen running out in most cases without their dinner-pails or coats. The fireboss was outside the mine at the time, and R. J. Brown, who has lately been appointed assistant manager for the afternoon shift, was on his way in when he met the workmen running out. The workmen, who are mostly foreigners, according to Mr. Brown were so scared that he found it almost impossible to get an intelligent account of the accident, but gathered from one that his partner was buried with a 'bump.' Mr. Brown, accompanied by the fireboss, who had joined him, proceeded in by the diagonal to No. 10 East entry.

"Reaching No. 22 room they found the air-current was carrying a cap of gas of over an inch, so they opened the doors on No. 10 East to allow this to clear off quicker, and proceeded in by No. 9 East and got up to where the blow-out had occurred in No. 3 North. The slack coal had filled the entire place, blocking the airway, so they broke the brattice as close up as they could reach. They then searched, but did not find any traces of any of the workmen.

"In the meantime they had sent word out to the lamp-room to see if any of the men were missing, and it was found that they had all reported, so they left the gas to drain off.

"About 8 a.m., with Mr. Caufield I visited the place, and we found the gas had considerably abated, and in the return at point marked 'A' on sketch we found 3.2 per cent. Proceeding in to No. 3 room, we tried it at the No. 9 East and found 0.6 per cent.; at point 'B' we found 2.9 per cent. on first reading, second 3.9 per cent. Sample 132 will check the latter. The gas seemed to act strangely here, varying from ½-inch cap to over 1 inch within a short space of time. I am inclined to think this was due to the opening and shutting of doors and movements of cars.

"On the inside of the break made by Mr. Brown the gas was very strong and with a peculiar odour, so I took a sample (133) and made a note on it to the effect it would be interesting to test it for some of the higher hydrocarbons.

"The blow-out had filled the place up to the roof with fine coal-dust, so we could not see the face, and at least 10 feet of the roadway was filled solid, tapering out for about 40 feet, the surface being nicely swept just as if a blast had passed over it.

"With the exception of one post which had been dislodged, the timbers did not seem to be disturbed, and even the brattice had not been blown down, the fine coal filling right up on both sides of it.

"It seems that the workmen have been troubled for some time past with slight 'bumps'; these seemed to get worse just before the blow-out, so much so that the workmen withdrew and were outside of the face when it occurred. An interesting description is given by the brattice-man, who was coming from No. 4 North to No. 3 at the time. He had just reached the parting when he felt four very distinct 'bumps,' and was waiting until the roof settled, when he heard a loud rumbling (just like beating a large sheet of iron); this seemed to travel right across in the roof over No. 4 and 3 North and towards No. 1 and 2 North, when it seemed to return, and to turn right into No. 3 room. The time from the 'bumping' till the rolling or rumbling would be about four minutes; then the whole air-current seemed to fill with very fine dust, making it almost impossible to see for a few minutes. This place is an ordinary room about 16 feet wide, and is in that part of the mine where we have always regarded the cover or surface as light, and the coal has generally been considered hard, although in this place for some days past the mining has been very easy.

"Although the cover is light, these places are in the gully which cuts the measures a little east of the mine entrance and are entering into the next mountain. It may be that there is some conditions between the mountains that contribute to these blow-outs.

"In the meantime all the places from No. 3 North and below have been stopped, and the intention is not to drive any farther through this gully or beyond it until well under the flat ground which is on to top of the mountain.

"Blow-outs have been very rare in Coal Creek, although common in Morrissey, which lies directly across the hill, when it was working. A slight blow-out did occur about two years ago, but this was in the inside workings.

"To prevent accidents from this cause drilling may be suggested, but from the close texture of the coal I am afraid this will prove of very little value.

"The only remedy which I can see that will be of permanent value for blow-outs and 'bumps' is for some seam of coal to be worked long-wall, so as to allow the settlement of the upper measures; this I think would allow the gas to drain off slowly.

"It is interesting, when we consider that, according to Mr. Rice, the caves which have been caused in the strata from the No. 2 workings, and causing the parting of the rocky strata higher up, to know why such settlements have not in some manner liberated such pockets of gas. While this place is not directly above the old workings in No. 3, still it is close enough, I should think, to be affected by them.

"The question of long-wall does not seem to be very favourably received here; still we have the conditions; if we take out a large percentage of coal, it will to a certain extent allow the roof to break and the gas to bleed off and prevent blow-outs; on the other hand, it certainly contributes to 'bumps.'

"I am sending you by express a jarful of coal-dust taken from the blow-out; I thought you might wish to send it either to Ottawa or Pittsburgh for analysis.

"What probably contributed to the general panic in the mine, and caused lots of comment, is the fact that exactly one year ago began that series of 'bumps' which cost one life and imprisoned several workmen."

"Bumps."

No severe "bumps" have been experienced in the mines of the Coal Creek Colliery during the year 1917, but light "bumps" have taken place frequently.

No work except repairs has been done in the area affected by the severe "bumps" of November 7th and 8th, 1916, in No. 1 East mine, Fernie.

Mine Fires and Explosions.

There were several mine fires and signs of fires reported during the year, which were all dealt with safely. They occurred at the following mines: Corbin No. 4 mine, of the Corbin Coal & Coke Company; No. 1 mine and the Reserve mines, Nanaimo Colliery, Western Fuel Company; Michel Colliery, Crow's Nest Pass Coal Company; Jingle Pot mine, British Columbia Coal Mining Company; No. 4 mine, Middlesboro Colliery; and Morden mine, Pacific Coast Coal Mines, Limited.

The most serious fire of the year was in the No. 1 mine, Western Fuel Company, a description of which is herewith appended; the others are mentioned in the reports of the Inspectors of the respective districts in which they occurred.

Fire, No. 1 Mine, Western Fuel Company.

This fire was started at the face of No. 11 North slant of Main heading, No. 3 wall, No. 1 shaft, at 7 p.m. on July 9th, 1917. The cause of the fire was due to Charles Styles, machineman, igniting some gas with his naked light. The fire was kindled three times and had not been properly extinguished. Some time later Richard Jackson, machineman, smelt smoke coming along the face-line with the return air. He investigated and found the big machine-mining had caught on fire. He sent for Wm. Halliday, fireboss in charge of that part of the mine on the afternoon shift, who, upon arriving, decided to short-current the air and keep it away from the fire. At 9 p.m. a telephone message was sent to Mr. Jackson, the mine manager, that some big machine-minings were on fire in No. 3 wall, but not giving him any particulars. He at once telephoned David Brown, overman, North side, and Wm. Neave, fireboss, No. 3 wall, to that effect, and asked them to hurry out and see for themselves what was the matter. In the meantime Mr. Jackson sent word to Mr. Hunt, superintendent, to have the Draeger apparatus ready if required.

T. R. Jackson, mine manager; David Brown, overman; and William Neave, fireboss, hurried to the scene of the fire, carrying with them six tins of pyrene. Upon arrival Mr. Jackson ordered the ventilating-current to take its proper course to better determine what the fire was like. This was done, and Jackson, Brown, and Neave went to within 15 feet of the fire, but found it was too large to deal with and at once dispatched a messenger to hurry the Draeger apparatus in and to bring more tins of pyrene.

That evening the writer arrived in that district by the evening train, and about 10 p.m. received a telephone message from Inspector Newton that there was a fire in No. 3 wall, No. 1 mine. He immediately hurried to the mine-rescue station, where preparation was being made to send in the Draeger apparatus. Soon after arrival the apparatus was ready, and a party consisting of John Hunt, superintendent of mines, Western Fuel Company, Inspector Newton, Instructor Stewart from the mine-rescue station, and several others and the writer immediately left by electric motor for the scene of the fire, carrying with them the apparatus. On the way in the party met the messenger sent out by Mr. Jackson. After arriving on the scene and examining the fire area, it was apparent that nothing could be done by the use of the apparatus and pyrene extinguishers; it was therefore decided to get water to it at the earliest possible moment; with this in view the compressed-air pipe-line was used for a water-line; one party was put on attaching the fire-hose on the end near the face, and another party was put on breaking the large air-line out at No. 2 wall and connecting it with a large duplex pump situated at that point. After considerable delay, owing to the water-pressure breaking the line at various places, the water was eventually gotten to the seat of fire about 5 a.m. next morning, the 10th. By this time the smoke was back a considerable distance from the face, and it was only by the use of the Draeger apparatus that the water could be poured on the fire; the men using the apparatus could get up close to the fire with the hose and had two streams of water under a pressure of 120 lb. playing on the fire. After the use of the apparatus for some time the smoke had been sufficiently cleared away to allow the men to work without the use of the apparatus. After thoroughly cooling off the place the men were put to work to load out the burned coal and other material, water being constantly used for cooling purposes, and by 7 a.m. of July 11th, 1917, all danger was past. But for the use of the Draeger apparatus the fire might have resulted in the sealing-off of the whole of the North side, and a consequent large loss of tonnage and a large number of men thrown out of employment for some time.

Great praise is due to the officials and workmen for their promptness in reporting for service and their zeal in dealing with the fire.

EXPLOSIONS.

Two explosions occurred during the year 1917. The first one occurred on April 5th at 3 p.m. at No. 3 mine, Coal Creek Colliery, of the Crow's Nest Pass Coal Company, in which thirty-four lives were lost. The second one occurred on June 3rd at No. 6 mine, Comox Colliery, operated by the Canadian Collieries (D.), Limited. These disasters are fully treated by separate reports.

AIR-BLASTS.

There were no air-blasts in the metalliferous mines during the year.

IMPROVEMENTS INAUGURATED IN THE MINES OF THE PROVINCE DURING THE YEAR.

During the year 1917 many improvements were inaugurated around the mines of the Province, such as reducing the number of naked lights in mines, installation of electric lamps, introduction of the Burrell gas-detector, treatment of coal-dust, limit of gas in the mine-air, governing withdrawal of workmen, etc. The following is a brief summary:—

Reduction of Naked Lights in Use.—After the explosion at Cumberland, which was caused by a naked light coming in contact with a small accumulation of gas, it was deemed advisable by the Department to try to displace the naked lights in the mines of the Province and replace them if possible by electric safety-lamps. With this end in view a circular letter was sent out to the different operating companies who were using naked lights in their mines, asking them to replace them with safety-lamps. The operators all readily agreed to meet the wishes of the Department, with the exception of one small company.

Since this request was made the number of naked lights in use in the mines has been reduced 60 per cent. and the remainder are being rapidly displaced.

Introduction of Electric Safety-lamps.—There has been installed in the mines of the Province during the year electric safety-lamps, distributed as follows:—

Vancouver Island mines	555
Nicola and Princeton mines	43
Crowsnest Pass mines	960
Total	1,558

The total number of electric safety-lamps in use in the Province at the end of 1917 is 1,558, and 1,456 of these have been installed during the year. Practically 37.3 per cent. of the safety-lamps in use in the Province are electric safety-lamps. Large quantities are on order by the operating companies and are being installed as fast as deliveries are made.

Introduction of the Burrell Gas-detector.—The Burrell gas-detector is being introduced for detecting smaller percentages of gas than can be detected on the safety-lamp. This apparatus has been tried out and found to give very good results, and will detect as low as $^1/_{10}$ of 1 per cent. of methane. During its trial it has been checked by chemical analysis of samples taken at the same time, and it checked very closely. On a series of tests it checked out to not more than $^3/_{10}$ of 1 per cent. in any case, and exactly with the analysis in many cases. This should prove a very valuable instrument in keeping down percentages of gas in mine atmospheres. Ordinarily to find anything below 2 to 2½ per cent. methane required a mine-air sample to be taken; this sample had to be sent to Ottawa for analysis, necessitating a delay of about fourteen days before returns could be got; whereas it is now possible to read percentages as low as $^1/_{10}$ of 1 per cent. in two minutes with the Burrell gas-detector. All the Inspectors are now equipped with this detector and six are in use at the Crowsnest Pass mines for company officials.

Treament of Coal-dust.—Considerable attention has been given to the treatment of coal-dust to minimize the dangers from this source. In the Crowsnest Pass mines the roadways in the mines have been treated with second-burnt ashes to neutralize the explosibility of the dust. Rock-dust barriers have been erected at the entrance to the different districts. Some 50,000 feet of pipe-lines have been installed in the mines to water the coal-faces and keep down the dust; this work is still in progress and is being pushed as rapidly as pipes can be secured.

Protection from Electrical Storms.—Lightning-arresters were installed at the mouth of No. 3 East and fan-drift of Old No. 3 mine, Michel Colliery.

Ventilation.—A good deal of attention has been given to the ventilation of the mines in the Crowsnest Pass District. The airways are being cleaned up, enlarged, and timbered, and two intakes and two returns have been made in some of the mines. It is the ultimate object to try and have three intakes and three returns in the larger mines to get large volumes of air in circulation at safe velocities, and to split the air frequently so as to reduce to a minimum the percentages of gas in the ventilating-currents.

A more permanent class of stopping is being put in to avoid the enormous leakages which have existed in these mines, and a large force of men is employed on this work.

"Bumps" and Installation of Seismograph.—To safeguard operations against "bumps" the services of G. Rice, Chief Engineer, United States Bureau of Mines, was secured to make an examination and report on conditions. Mr. Rice made an examination and report, giving certain recommendations; these are being largely carried out; new methods of work are being inaugurated in the mine where the "bumps" have taken place and many other precautions taken.

To try and give warning of impending "bumps" a special seismograph is being constructed by Mr. Denison, of the Meteorological Station, Victoria. This instrument will record the slow movements of the rocks, and in addition to giving a visible reading will also make a chart which can be developed and will show the reading every minute of the day; by this a complete record can be kept of the slight movements of the rocks, and it is hoped that warning of approaching heavy "bumps" will be given several days before they actually take place.

Withdrawals of Men from Faces.—In the Crowsnest Pass mines a rule has been put in force that the workmen must be withdrawn when the percentage of gas in the air is 2½ per cent. or upwards. Tests were made to establish what cap on a Wolf safety-lamp represented 2½ per cent. by analyses and tests by the Burrell gas-detector. These tests proved that a ¼-inch cap on a Wolf safety-lamp represented 2½ per cent., and orders were given that workmen must be withdrawn when the air in a working-place shows ¼-inch cap.

Co-operation with Gas Committees.—A closer co-operation now exists between the Inspection Department and the gas committees. By request from the Department of Mines the gas committee now send a report of their inspection to the Mines Department at Victoria, so that the Department is in touch with the committees' work, and their reports on conditions are compared with reports of the Inspectors from the same mines.

Much credit is due to W. R. Wilson and the officials of the Crowsnest Pass coal-mines for their co-operation with the Inspection Department in adopting any means at their disposal to render operations safe.

Many improvements are also being inaugurated by the Canadian Collieries (Dunsmuir), Limited, and the Western Fuel Company, of the Coast District, both companies having started to equip their mines with the Edison electric safety-lamps. The Western Fuel Company has also done considerable work along the lines of treatment of coal-dust and erection of rock-dust barriers. They have also appointed two safety inspectors to patrol the various mines, and have adopted other methods to foster first aid, details of which are given in Inspector Newton's report.

MINE-AIR SAMPLING IN METALLIFEROUS MINES.

During the year 1917 sixty mine-air samples were taken in the metalliferous mines of the Province. Of this number, eight samples were spoiled in transit accidents, laboratory, or by reason of incomplete record. Much valuable information has been obtained from these samples in reference to the hydrogen, carbon-monoxide, and carbon-dioxide contents.

The following table shows the tabulated data obtained from mine-air sampling in metalliferous mines:—

Returns from Mine-air Samples taken in the Various Metalliferous Mines of the Province of British Columbia, 1917.

East Kootenay District.

Sample No.	Date.	Mine.	Location in Mine.	CO_2.	O.	CO.	H.	N.	Dry Bulb.	Wet Bulb.	Humidity.	Remarks.
1	May 22	Sullivan	100 feet from face of 3,900-foot tunnel	0.19	20.22	.....	.....	79.59	.....	.....	.....	
2	" 22	"	1,085 stope	0.09	20.66	.....	.....	79.25	.....	.....	.....	

West Kootenay District.

1	Jan. 3	War Eagle	1,301 drift	0.07	20.78	.....	.....	79.15	73	68	74	Sample taken 40 minutes after blasting.
2	" 3	"	1,301 drift	0.06	20.79	.....	.....	79.15	70	65	74	Sample taken 7 hours after blasting.
3	" 3	"	1,301 drift	0.15	20.70	.....	.....	79.15	70	68	89	Sample taken 15 hours after blasting.
7	" 17	"	1,651 stope	0.74	20.06	.....	.....	79.20	86	85	95	Stope not working.
5	" 17	Le Roi	2,052 drift	0.07	20.80	.....	.....	79.13	75	72	84	Sample taken 6½ hours after blasting.
6	" 17	"	2,052 drift	0.10	20.75	.....	.....	79.15	75	74	94	Sample taken 14½ hours after blasting.
8	" 27	White Bear	1,000-foot level (205 feet east of shaft)	0.41	19.51	.....	0 04	80.04	62	59	82	Candle would not burn.
9	" 27	"	702 crosscut (165 feet east of shaft)	0.43	19.48	.....	0.03	80.06	56	55	93	Candle would not burn.
10	" 27	"	Pump Station, 300 level	0.07	20.82	.....	0.02	79.09	55	53	83	
11	Feb. 2	Galena Farm	Shaft 2 feet below 100 level	0.10	20.79	.....	trace	79.11	48	47	92	
12	" 2	"	100 level	0.10	20.75	.....	.....	79.15	48	46	85	
13	" 2	"	200 level	0.08	20.79	.....	.....	79.13	48	46	85	
15	Aug. 13	"	Shaft 2 feet below 100 level	62.7	7 17	.....	trace	30.6	50	48	85	
16	" 18	"	Shaft 2 feet below 100 level	62.1	1.7	.....	trace	30.2	50	48	85	

Nicola-Similkameen District.

2	Jan. 26	Erin	No. 2 level	0.05	20.78	.....	.....	79.19	48	48	100	Sample taken 20 hours after blasting.
3	Feb. 9	Nickel Plate	Old incline	0.12	20.75	.....	trace	79.13	40	38	84	Sample taken 8 hours after blasting.
6	May 30	Aberdeen	200 level	0.21	20.61	.....	0.02	79.16	65	65	100	Sample taken 13 hours after blasting.

Coast District.

4	Mar. 20	Maple Bay	Face of 1,503 raise	0.38	20.20	trace	0.04	79.28	58	56	87	Sample taken 10.30 hours after blasting.
5	" 20	"	Face of 900 water raise	0.31	20.50	trace	....	79.19	65	60	73	Sample taken 12 hours after blasting.
6	" 20	"	100 feet from 1,500-foot station	0.21	20 58	.....	trace	79.21	59	58	93	Sample taken 12½ hours after blasting.
7	" 23	Britannia	Manson West stope, 850 level	0.05	20.79	.....	0.03	79.13	42	40	84	Sample taken 10½ hours after blasting.
8	" 23	"	Parker stope, 850 level	0.08	20.76	.....	0.03	79.13	46	43	78	Sample taken 10½ hours after blasting.
9	" 23	"	Manson East stope, 850 level	0.07	20.77	.....	0.04	79.12	44	44	100	Sample taken 11 hours after blasting.
10	" 23	"	Perry stope, 600 level	0.09	20.78	.....	0.04	79.09	48	44	73	Sample taken 10½ hours after blasting.
11	" 23	"	Brand stope, 500 level	0.11	20.74	.....	0.02	79.13	45	44	92	Sample taken 13 hours after blasting.
12	" 23	"	McLeod stope, 500 level	0.08	20.76	.....	0.04	79.12	45	44	192	Sample taken 13 hours after blasting.
13	" 24	"	Copeland stope, 1,000 level	0.02	20.78	.....	0.03	79.17	45	45	100	Sample taken 2½ hours after blasting.
14	" 24	"	Sleeman slope, 1,000 level	0.04	20.78	.....	0.03	79.15	45	44	92	Sample taken 10 hours after blasting.
15	" 24	"	Barbara Glory-hole stope, 250 level	0.04	20.81	.....	0.03	79.12	38	34	69	Sample taken 11 hours after blasting.

RETURNS FROM MINE-AIR SAMPLES, ETC.—*Concluded.*

Northern District.

Sample No.	Date.	Mine.	Location in Mine.	CO_2.	O.	Co.	H.	N.	Dry Bulb.	Wet Bulb.	Humidity.	Remarks.
1	Jan. 26	Anyox	300 feet from No. 44 raise, 700 level	0.07	20.79	.....	0.03	79.11	46	40	61	Sample taken 1 hour after blasting.
2	" 26	"	No. 44 raise, 630 level	0.09	20.74	.....	trace	79.17	46	40	61	Sample taken 1½ hours after blasting.
3	" 26	"	No. 40 drift, near No. 5 pocket	0.15	20.68	.....	.....	79.17	48	40	52	Sample taken 1½ hours after blasting.
4	" 26	"	No. 3 stope, No. 1 ore-body, 385 level	0.05	20.78	.....	.....	79.17	46	41	66	Sample taken 2¼ hours after blasting.
5	" 26	"	No. 80 drift, No. 17 chute, 385 level	0.36	20.46	.....	trace	79.24	47	41	61	Sample taken 20 minutes after blasting.
6	Mar. 22	"	Steel-sharpening station, 530 level	0.24	20.56	trace	trace	79.20	47	41	61	Sample taken.
7	" 22	"	No. 10 drift, near 17 chute, 385 level	0.07	20.72	....	0.03	79.18	46	40	61	Sample taken 15 minutes after blasting.
8	" 22	"	150 level, Main tunnel, 2,000 feet from portal	0.25	20.56	....	0.02	79.17	48	42	56	Sample taken 3½ hours after blasting.
17	Nov. 19	"	No. 20 drift, near 22 chute	0.09	20.61	trace	....	79.30	60	56	76	Sample taken 1 hour after blasting.
18	" 19	"	No. 50 drift, 385 level	0.09	20.81	trace	.....	79.10	60	56	76	Sample taken 2 hours after blasting.
19	" 19	"	No. 20 drift, No. 21 pocket	0.11	20.73	trace	.....	79.16	60	56	76	Sample taken 4 hours after blasting.
20	" 20	"	Face of Main drift, 150 level	0.11	20.75	.....	.....	79.14	62	54	58	Sample taken 2 hours after blasting.
21	" 21	Quartz Point, Anyox	No. 1 stope	0.18	20.70	.....	.....	79.12	46	40	61	Sample taken 2 hours after blasting.
22	" 21	May Quartz, Anyox	No. 21 stope, N.E. drift	0.04	20.78	trace	.....	79.18	48	46	85	Sample taken 1½ hours after blasting.
10	April 14	Silver Standard	No. 262 stope	0.11	20.73	trace	.....	79.16	46	40	61	Sample taken 4½ hours after blasting.
11	" 16	Rocher Déboulé	Crosscut tunnel, 1,200 level	0.29	20.52	trace	.....	79.19	46	38	51	Sample taken 5½ hours after blasting.
12	" 16	"	Main drift, 2,200 level	0.17	20.61	.....	.....	79.22	49	39	51	Sample taken 6½ hours after blasting.
13	May 10	Surf Inlet	No. 1 North drift, 600 feet from portal	0.56	20.44	0.04	0.02	79.94	48	42	62	Sample taken 11½ hours after blasting.
14	" 10	"	No. 10 East crosscut, 1,400 feet from portal, No. 5 level	0.35	20.59	0.02	0.02	79.02	60	56	76	Sample taken 12 hours after blasting.
15	Oct. 2	"	No. 3 stope, 550 level	0.07	20.66	.....	trace	79.17	60	56	76	Sample taken 22 hours after blasting.
16	" 2	"	No. 1 stope, 200 level	0.07	20.78	.....	0.05	79.10	60	56	76	Sample taken 2¼ hours after blasting.

I am much indebted to Dr. Eugene Haanel, Director of the Mines Branch, Ottawa, for co-operation in the work, the Dominion Department furnishing the sample-bottles, with franking privileges, and making all analyses without charge of any kind.

Mine-rescue Work.

During the year the Department took over the Mine-rescue Station at Cumberland, formerly run and equipped by the Canadian Collieries (Dunsmuir), Limited.

The following equipment has been installed by the Department at this station: Six 2-hour positive-pressure Draeger apparatus; one high-pressure refilling-pump; twelve 150-cubic-foot storage-cylinders; two pulmotors, type A and B; twelve Edison electric cap-lamps; and a supply of regenerating cartridges and oxygen cylinders for apparatus.

The Colliery Company has removed its apparatus from this station and put in sub-stations at the different mines.

During the year the Crow's Nest Pass Coal Company installed one set of new apparatus at Michel Colliery, and remodelled all the apparatus that has been previously installed both at Coal Creek Colliery and Michel Colliery.

The Canadian Collieries (Dunsmuir), Limited, remodelled all the apparatus at both the Extension and Comox Collieries, and added two type B pulmotors to the former equipment.

In metal-mines, the Granby Consolidated Mining, Smelting, and Power Company at Anyox added three sets of 2-hour positive-pressure Draeger apparatus to its former equipment.

There were thirty-nine certificates of competency in mine-rescue work issued by the Department during the year; eight at Fernie Station and thirty-one in the field, as shown by attached list:—

List of Persons who have received Mine-rescue Certificates during the Year 1917.

Date.	Name.	Where trained.	Cert. No.	Date.	Name.	Where trained.	Cert. No.
July 27th	Allan, Hamilton	Extention.	360	Aug. 27th	Ivey, George D.	Anyox	381
" 27th	Blass, Emile	"	361	" 27th	Strand, Peter	"	382
" 27th	Campbell, Andrew	"	362	" 27th	Lantermo, Antonio	"	383
" 27th	Courtney, Albert W.	"	363	Sept. 27th	Turnbull, Matthew	Fernie	384
" 27th	Galloway, James	"	364	" 27th	Charnock, John	"	385
" 27th	Greenhorn, John	"	365	" 27th	Parsons, Herbert	"	386
" 22th	Hamilton, John	"	366	" 27th	Phillips, Richard	"	387
" 27th	Hunter, Thomas	"	367	Oct. 10th	Hynds, William	"	388
" 27th	Jones, Samuel	"	368	" 10th	Morgan, William	"	389
" 27th	Maffeo, Peter	"	369	" 10th	Reid, Thomas	"	390
" 27th	McDonald, Allan	"	370	" 10th	Brown, Frank	"	391
" 27th	Nimmo, James P., Jr.	"	371	" 20th	Barlow, Benjamen R.	Princeton	392
" 27th	Rafter, Robert	"	372	" 20th	Gourlay, Robert	"	393
" 27th	Rafter, William B.	"	373	" 20th	Baxter, Robert	"	394
" 27th	Rickard, John Wm.	"	374	" 20th	Geater, James G.	"	395
" 27th	Thompson, Michael	"	375	" 20th	Dignan, William	"	396
" 27th	Winstanley, Henry	"	376	Dec. 18th	Stacey, Reginald	Michel	397
Aug. 27th	Bengtson, Victor	Anyox	378	" 18th	Mercer, James	"	398
" 27th	Peacock, James	"	379	" 18th	Newman, John	"	399
" 27th	Rowlands, Evan J.	"	380				

LIST OF HOLDERS OF CERTIFICATES OF COMPETENCY IN MINE-RESCUE TRAINING FOR THE PROVINCE OF BRITISH COLUMBIA.

Name.	Date.	Cert. No.	Name.	Date.	Cert. No.
Adamson, Robert	Sept. 2, 1913	45	Clark, Joseph	July 23, 1915	221
Addison, Walker	Jan. 26, 1916	289	Clark, Louis	July 23, 1915	214
Ainsworth, Edward	May 5, 1914	124	Clarkstone, Wm. Walter	March 6th, 1916	308
Aitken, Thomas M	Jan. 26, 1916	261	Clements, Edwin F	Oct. 13, 1916	356
Almond, Walter	July 24, 1916	343	Commons, William	June 30, 1913	22
Allan, Alexander McD	June 30, 1913	32	Coomb, Alexander	Jan. 26, 1914	117
Allan, Hamilton	July 27, 1917	360	Corlett, William D	June 1, 1914	150
Andren, Alfred	Jan. 28, 1916	303	Courtney, Albert Warren	July 27, 1917	363
Anderson, Robert	June 30, 1913	27	Craig, James	July 15, 1916	324
Arbuckle, John	July 1, 1914	157	Crawford, David	Sept. 12, 1913	80
Archibald, George	July 23, 1915	222	Crichton, Robert	Aug. 1, 1914	161
Archibald, Thomas	Sept. 6, 1916	353	Crosscombe, James	Nov. 1, 1914	178
Baggaley, John	June 10, 1913	15	Cullinane, James	Nov. 1, 1914	169
Bain, James	Nov. 1, 1913	90	Cunliffe, Thomas	Dec. 1, 1914	192
Ball, Alfred	July 24, 1916	341	Dando, Caleb	June 30, 1915	216
Ball, Benjamin	Dec. 1, 1914	190	Dando, Caleb V	June 30, 1915	213
Barlow, Benjamin R	Oct. 20, 1917	392	Dando John	June 30, 1915	212
Barnes, Benjamin J	Sept. 12, 1913	76	Davidson, Hugh McL	Nov. 25, 1915	234
Barnes, James	Nov. 1, 1914	177	Davidson, Norman	Jan. 28, 1916	301
Barton, Joseph	June 1, 1914	129	Davis, Stephen	June 22, 1916	314
Baxter, Robert	Oct. 20, 1917	394	Dean, John	Jan. 26, 1916	262
Baybutt, Thomas	Dec. 12, 1914	199	Delaney, James	Nov. 25, 1915	233
Beck, Alexander	Jan. 26, 1914	114	Devlin, Henry	Jan. 26, 1914	104
Bell, Frederick	Dec. 22, 1915	247	Dickinson, Clifford	June 1, 1914	128
Bell, John	July 1, 1914	151	Dickson, James	June 1, 1914	141
Bell, William E	July 15, 1916	329	Dignan, William	Oct. 20, 1917	396
Bengtson, Victor	Aug. 27, 1917	378	Drake, Samuel	Jan. 26, 1916	281
Bennett, Andrew M	Oct. 13, 1916	357	Duncan, James	July 1, 1914	153
Bevis, Nathaniel	Dec. 22, 1915	254	Dunnigan, James	July 23, 1915	225
Beveridge, James	July 1, 1914	158	Dykes, Joseph W	Jan. 26, 1916	257
Biggs, John	June 10, 1913	18	Ewart, Alexander	Sept. 12, 1913	71
Blair, J	Sept. 12, 1913	66	Ewing, Robert F	June 22, 1916	318
Blass, Emile	July 27, 1917	361	Fairfoull, James	Sept. 12, 1913	72
Bonar, Robert	Jan. 26, 1916	263	Fawcett, Albert	March 6, 1916	307
Bond, Frank	Sept. 12, 1913	81	Ferguson, James N	June 22, 1916	313
Brace, Tom	Sept. 12, 1913	54	Fisher, John H	Nov. 1, 1915	229
Bradshaw, George	Jan. 26, 1914	116	Foran, John T	Nov. 1, 1914	182
Bridgeman, George	Nov. 1, 1914	180	Fowler, Robert	June 30, 1913	35
Broderick, Matthew	June 30, 1915	214	France, Thomas	Nov. 1, 1913	88
Brough, William F	Jan. 26, 1916	272	Frater, George	July 15, 1916	327
Brown, Alexander	March 6, 1916	311	Frearson, Albert W	Dec. 1, 1913	95
Brown, David	Jan. 26, 1916	276	Freeland, P. B	Jan. 28, 1916	302
Brown, Edward	Nov. 1, 1914	179	Freeman, Henry N	June 1, 1914	134
Brown, Frank	Oct. 10, 1917	391	Frew, Andrew	Dec. 1, 1914	193
Brown, James	June 30, 1915	210	Galloway, James	July 27, 1917	364
Brown, John	June 30, 1915	209	Geater, James G	Oct. 20, 1917	395
Brown, John T	Sept. 12, 1913	69	Gemmell, James	Sept. 12, 1913	60
Brown, Robert J	June 30, 1913	23	Gibson, Edward	Jan. 26, 1916	285
Brown, R. S	Sept. 12, 1913	63	Gillespie, John	June 30, 1915	208
Brown, William A	Dec. 15, 1913	99	Gould, Alfred	Jan. 26, 1916	264
Brunt, Henry	July 15, 1916	335	Gourlay, Robert	Oct. 20, 1917	393
Bryce, Richard	Dec. 22, 1915	248	Graham, Thomas	Jan. 26, 1914	105
Buchanan, Henry	Dec. 22, 1915	251	Gray, George	June 1, 1914	137
Bullen, Thomas	Sept. 12, 1913	75	Green, Francis	Nov. 1, 1914	186
Bunch, Alexander	March 6, 1916	304	Greenhorn, John	July 27, 1917	365
Bushell, James P	June 30, 1913	36	Gregory, William	Sept. 1, 1914	167
Callow, Charles	Oct. 13, 1916	359	Griffiths, John	June 1, 1914	149
Campbell, Andrew	July 27, 1917	362	Groutage, Edgar E	Nov. 1, 1915	230
Cameron, Samuel	Dec. 22, 1915	250	Guinness, Matthew	Jan. 26, 1914	120
Carson, George	June 1, 1914	139	Hamer Joseph	Nov. 1, 1913	86
Caufield, Bernard	Sept. 1, 1914	166	Hamilton, John	June 1, 1914	135
Caufield, Edward	Sept. 1, 1914	165	Hamilton, John	July 27, 1917	366
Caufield, John	Sept. 2, 1913	43	Hamilton, Robert	June 1, 1914	130
Challoner, John A	Jan. 26, 1916	280	Hancock, Arthur	Dec. 15, 1913	100
Charnock, John	Sept. 27, 1917	385	Harrison, Albert E	Oct. 1, 1914	171
Chester, John	Sept. 2, 1913	44	Hawkins, John	Nov. 1, 1914	183

LIST OF HOLDERS OF CERTIFICATES OF COMPETENCY—*Continued.*

Name.	Date.	Cert. No.	Name.	Date.	Cert. No.
Hays, William	July 23, 1915	223	Marrs, John	Jan. 26, 1916	287
Healer, Robert	Nov. 1, 1915	227	March, John	July 24, 1916	342
Hemer, Herbert	June 1, 1914	132	Martin, David	June 10, 1913	6
Henderson, Robert	Dec. 22, 1915	245	Martin, David, Jr.	Aug. 1, 1914	160
Hendry, James	Sept. 12, 1913	57	Martin, Henry	May 5, 1914	123
Herd, William	June 30, 1915	203	Mason, Joseph	Dec. 1, 1914	194
Hesketh, Edward	June 1, 1914	143	Mason, Thomas	Jan. 26, 1916	279
Heyes, Edward	Dec. 1, 1914	191	Mawson, John T.	Sept. 2, 1913	46
Hindmarsh, Thomas	Sept. 6, 1916	352	Maxwell, George	Sept. 6, 1916	347
Hodgson, James	Jan. 26, 1916	273	Meek, Matthew	June 22, 1916	319
Hollands, Alexander	Sept. 6, 1916	351	Mercer, James	Dec. 18, 1917	398
Houston, Robert	June 22, 1916	312	Miard, Henry E.	June 10, 1913	11
Howden, Archibald B	Dec. 1, 1913	93	Michell, Dudley	June 10, 1913	13
Huby, Norman	Dec. 22, 1915	252	Michell, George G	March 6, 1916	305
Hudson, George	Sept. 12, 1913	77	Millar, John A	Jan. 28, 1916	297
Hughes, J. C	Sept. 12, 1913	79	Millar, Peter P	June 10, 1913	14
Hunt, John	Jan. 26, 1916	282	Miscisco, Nicholas	June 1, 1914	144
Hunter, Frederick	Jan. 26, 1916	283	Mitchell, Henry	Nov. 25, 1915	243
Hunter, Thomas	July 27, 1917	367	Montgomery, Edgar G	Oct. 1, 1914	172
Hunter, William	Sept. 1, 1914	163	Moore, George	July 15, 1916	323
Hutson, Frederick	Dec. 1, 1913	96	Moore, John	Sept. 2, 1913	51
Hynds, William	Oct. 10, 1917	388	Moore, William H	June 1, 1914	125
Irving, Thomas	July 15, 1916	333	Mordy, Thomas	Dec. 22, 1915	246
Ivey, George D	Aug. 27, 1917	381	Morgan, John	Nov. 25, 1915	241
Jackson, Thomas R	Nov. 1, 1914	184	Morgan, William	Oct. 10, 1917	389
James, David	Nov. 1, 1913	87	Morris, David	Dec. 15, 1913	101
James, Edward	Nov. 1, 1915	228	Mottishaw, Samuel K	Jan. 26, 1916	294
James, William	Nov. 25, 1915	242	Moyes, James	July 23, 1915	218
Jardine, Alfred	June 1, 1914	131	Murphy, Andrew	Jan. 26, 1916	265
Jaynes, Frank	June 30, 1915	201	Musgrove, John	June 30, 1913	25
Jemson, James W	Jan. 26, 1914	119	Myers, Peter	June 30, 1915	202
John Francis	Jan. 26, 1916	260	McAlpine, John	June 30, 1913	38
John, Howell	Sept. 12, 1913	59	McArthur, John	June 1, 1914	126
Jonnson, Albin	Jan. 28, 1916	300	McCourt, John	July 1, 1914	154
Johnstone, Robert	Aug. 1, 1914	159	McDonald, Allan	July 27, 1917	370
Jolly, Andrew	July 15, 1916	332	McDonald, J	Sept. 12, 1913	78
Jones Evan	Nov. 1, 1913	91	McFagan, Alexander	Sept. 2, 1913	49
Jones, Samuel	June 30, 1915	206	McFegan, William	June 10, 1913	12
Jones, Samuel	July 27, 1917	368	McGrath, James	Sept. 6, 1916	355
Jordon, Thomas	Jan. 26, 1916	270	McGuckie, John	June 1, 1914	110
Joyce, Walter	Sept. 2, 1913	41	McGuire, Thomas	Dec. 1, 1913	94
Kenny, Clair F	Jan. 26, 1916	268	McKelvie, James	June 30, 1913	26
Kilburn, George H	Nov. 1, 1914	175	McKendrick, Andrew	July 23, 1915	219
Kinsman, Alexander D	Sept. 1, 1914	164	McKibben, Matthew	July 23, 1915	220
Kirkpatrick, James	July 15, 1916	337	McKinnon, D. A.	Jan. 28, 1916	295
Kirkwood, John	Sept. 12, 1913	64	McLachlan, Alexander	Nov. 25, 1915	236
Knowles, James E	June 1, 1914	142	McLachlan, James	June 1, 1914	145
Lancaster, William	June 10, 1913	7	McLauchlin, John A	Jan. 28, 1916	296
Lander, Frank	Sept. 2, 1913	42	McLean, Michael	Dec. 12, 1914	198
Lane, Joseph	June 10, 1913	20	McMillan, John H	June 30, 1915	204
Lanfear, Herbert	Sept. 2, 1913	52	McMillan, R	Sept. 12, 1913	68
Lantermo, Antonio	Aug. 27, 1917	383	McNay, Carmichael	June 10, 1913	16
Lauderbach, Carl	June 22, 1916	320	McNeil, Robert	Dec. 22, 1915	256
Lee, George	July 15, 1916	336	McPherson, James E	Nov. 1, 1913	83
Leeman, Thomas	Dec. 22, 1915	253	Neave, William	Jan. 26, 1914	111
Lewis, Thomas	Jan. 26, 1916	274	Neen, Joseph	Jan. 26, 1916	266
Leynard, Paul	Jan. 26, 1916	292	Neilson, William	Sept. 6, 1916	345
Lindsay, William	Nov. 1, 1914	181	Nelson, N. E	Jan. 28, 1916	298
Littler, Matthew	Dec. 12, 1914	197	Newbury, Arthur	Jan. 26, 1916	286
Loxton, George	Nov. 1, 1913	85	Newman, John	Dec. 18, 1917	399
Lunan, George	Sept. 6, 1916	346	Newton, John	Jan. 26, 1914	103
Lynch, Stewart	June 30, 1913	28	Nimmo, James	Nov. 1, 1914	187
Maffeo, Peter	July 27, 1917	369	Nimmo, James Pollock, Jr.	July 27, 1917	371
Male, Philip	July 15, 1916	326	Nisbet, Robert	Sept. 6, 1916	350
Malone, Patrick	Nov. 25, 1915	237	Norris, Joseph	Jan. 26, 1916	293
Matlman, James	June 30, 1913	34	O'Brien, Charles	Sept. 2, 1913	39

LIST OF HOLDERS OF CERTIFICATES OF COMPETENCY—*Concluded.*

Name.	Date.	Cert. No.	Name.	Date.	Cert. No.
O'Brien, George	June 10, 1913	4	Staton, Edward	Sept. 6, 1916	349
O'Brien, Melbourne M	Oct. 1, 1914	170	Stephens, Ralph	March 6, 1916	309
Osborne, Hugh	July 23, 1915	224	Stephens, Roy	Nov. 1, 1914	174
Oswald, George L	Jan. 26, 1916	291	Stewart, Aaron	Jan. 26, 1916	269
Park, Alexander	July 15, 1916	334	Stewart, Adam	Jan. 26, 1916	271
Parkinson, Harry	July 24, 1916	344	Stewart, James	June 10, 1913	9
Parkinson, Thomas	June 1, 1914	133	Stewart, John D.	Jan. 26, 1916	106
Parnham, Charles	June 30, 1915	211	Stewart, Robert T.	Nov. 1, 1913	92
Parrott, John	July 15, 1916	331	Stobbart, Ralph	Jan. 26, 1916	259
Parsons, Herbert	Sept. 27, 1917	386	Stobbart, Jacob	Jan. 26, 1914	108
Patterson, John	Jan. 26, 1916	275	Stockwell, William	June 10, 1913	17
Peacock, James	Aug. 27, 1917	379	Stone, William	July 23, 1915	226
Perry, James	Jan. 26, 1914	115	Strachan, Robert	June 10, 1913	2
Phelan, Arthur	Sept. 12, 1913	56	Strand, Peter	Aug. 27, 1917	382
Phillips, James Henry	July 24, 1916	321	Strang, James	Nov. 25, 1915	239
Phillips, Richard	Sept. 27, 1917	387	Strang, James	June 22, 1916	315
Poole, S.	Sept. 12, 1913	65	Strang, Thomas	Nov. 25, 1915	240
Potter, Robert	Oct. 13, 1916	358	Strang, William	Sept. 12, 1913	73
Price, Walter	June 30, 1913	29	Sutherland, John	July 15, 1916	330
Purss, David	Nov. 15, 1915	238	Taylor, Edward	Dec. 1, 1913	98
Quinn, James	July 24, 1916	340	Taylor, James	Dec. 1, 1913	97
Radcliffe, Joseph	Jan. 26, 1914	113	Taylor, J. T.	Sept. 12, 1913	55
Rafter, Robert	July 27, 1917	372	Taylor, Thomas	Jan. 26, 1916	267
Rafter, William Benjamin	July 27, 1917	373	Taylor, Thomas H.	Jan. 26, 1916	290
Rankin, George	June 30, 1913	31	Teahan, Denis	July 1, 1914	155
Rankin, William	June 30, 1913	33	Thacker, George	Sept. 12, 1913	62
Ratcliffe, Thomas	June 10, 1913	19	Thompson, John	June 30, 1915	207
Reid, Robert	June 1, 1914	136	Thompson, Michael	July 27, 1917	375
Reid, Thomas	Oct. 10, 1917	390	Tipton, William C.	June 1, 1914	140
Richards, James	Jan. 26, 1916	284	Todd, Henry J	July 15, 1916	328
Rickard, John William	July 27, 1917	374	Touhey, James	Dec. 1, 1914	188
Roberts, Thomas D.	Nov. 1, 1914	176	Turnbull, Matthew	Sept. 27, 1917	384
Robertson, James H.	Jan. 26, 1916	277	Tully, Matthew	May 5, 1914	121
Rogers, Ellis	Dec. 22, 1915	249	Tully, Thomas	May 5, 1914	122
Roper, William	July 15, 1916	339	Vardy, Robert	Sept. 12, 1913	61
Rowan, Alexander	Nov. 1, 1914	185	Walker, George M.	Sept. 6, 1916	354
Rowbottom, Thomas	Sept. 12, 1913	70	Wallbank, John W.	June 1, 1914	127
Rowlands, Evon J.	Aug. 27, 1917	380	Wallis, John	Nov. 1, 1915	231
Rutledge, Edwin	June 30, 1913	37	Wardrop, James	June 30, 1913	30
Scott, George	July 15, 1916	325	Warburton, Leonard E.	Sept. 12, 1913	74
Scott, Thomas W.	June 30, 1915	215	Watson, Adam G.	June 10, 1913	10
Seaton, C. A.	Nov. 1, 1915	232	Watson, Arthur	Nov. 25, 1915	244
Seggie, Robert	Jan. 26, 1914	118	Watson, Joseph	June 22, 1916	310
Shanks, David	Sept. 12, 1913	48	Waugh, Andrew W.	Jan. 26, 1916	288
Shanks, John	June 10, 1913	5	Weeks, John	Jan. 26, 1914	109
Sharp, James	Sept. 12, 1913	67	Wesnedge, William	Sept. 12, 1913	50
Shaw, Thomas J.	Nov. 1, 1913	89	White, William	June 10, 1913	21
Shaw, William	June 30, 1913	24	Whitehouse, William	Dec. 12, 1914	196
Shelledy, Rowland B.	Oct. 1, 1914	168	Wilcox, J.	Sept. 12, 1913	58
Sherwin, Edward	Sept. 1, 1914	162	Wilkinson, Edward	Jan. 26, 1916	258
Simpson, Ralph	March 6, 1916	306	Williams, Thomas H.	June 10, 1913	3
Skimming John	Sept. 6, 1916	348	Williams, Watkin	June 1, 1914	138
Sloan, Hugh	June 30, 1915	205	Williams, William D.	Jan. 28, 1916	299
Smith, Arthur E.	Sept. 12, 1913	82	Wilson, Daniel R.	June 1, 1914	147
Smith, George	Nov. 25, 1915	235	Wilson, Thomas	Nov. 1, 1913	84
Smith, Thomas	Jan. 26, 1916	278	Wilson, William	June 10, 1913	8
Soloski, Angus	Dec. 15, 1913	102	Winstanley, Henry	July 27, 1917	376
Spicer, John E.	Dec. 22, 1915	255	Worthington, —	Sept. 2, 1913	40
Spruston, Robert L.	Dec. 1, 1914	189	Wright, John	June 22, 1916	316
Spruston, Thomas A.	June 30, 1915	200	Yarrow, George	Jan. 26, 1914	112
Stacey, Reginald	Dec. 18, 1917	397	Young, Joseph	July 15, 1916	322

The following table shows the number, distribution, and type of mine-rescue apparatus and oxygen resuscitating devices maintained at the coal-mines of the Province during the year 1917:—

Company.	Draeger Apparatus.		Proto or Fluess Apparatus.		Total Apparatus.	Resuscitating Devices.			Total.
						Pulmotor.		Lung-motor.	
	2-hour.	½-hour.	2-hour.	1-hour.		Type A.	Type B.		
Western Fuel Company	4	..	4	2	10	2	..	2	4
Canadian Collieries—									
Extension	4	..	..	..	4	..	1	..	1
Comox	4	..	..	..	4	..	1	..	1
Vancouver-Nanaimo Coal Mining Co	2	1	..	..	3	1	..	..	1
Pacific Coast Coal Mines	2	2	..	..	4	1	..	..	1
Middlesboro Collieries	2	1	..	..	3	1	..	..	1
Inland Coal and Coke Co	2	2	..	..	4	1	..	..	1
Merritt Colliery	..	2	..	..	2	..	..	..	..
Princeton Coal and Land Co	1	1	..	..	2	1	.	..	1
Crow's Nest Pass Coal Co.—									
Coal Creek	5	6	..	..	11	2	..	..	2
Michel	5	5	..	..	10	1	..	..	1
Corbin Coal and Coke Co., Corbin	2	1	..	..	3	1	..	..	1
B.C. Government	22	10	..	..	32	4	4	.	8
Totals	55	31	4	2	92	15	6	2	23

The following table shows the number of mine-rescue apparatus and resuscitating devices in and around the metal-mines of the Province in 1917:—

Company.	Draeger Apparatus.			Fluess or Proto Apparatus.	Total Apparatus.	Resuscitating Devices.			Total.
						Pulmotor.		Lung. motor.	
	2-hour.	1-hour.	½-hour.	2-hour.		Type A.	Type B.		
Consolidated Mining and Smelting Co.—									
Rossland	..	..	..	4	4	2	..	2	4
Kimberley	..	..	..	2	2	1	..	..	1
Nelson	..	..	..	..	..	1	..	..	1
Ainsworth	..	..	..	2	2	1	..	..	1
Granby Consolidated Mining, Smelting and Power Co.—									
Phoenix	..	3	.	..	3	1	..	..	1
Anyox	3	..	1	..	4	2	3	..	5
Britannia Mining and Smelting Co., Britannia	4	..	..	..	4	3	..	..	3
Standard Silver-Lead Co., Silverton	5	..	..	..	5	1	..	..	1
Montana Continental Development Co., Tramville	..	..	..	..	..	..	1	..	1
B.C. Copper Co.—									
Mother Lode	..	..	..	..	..	..	..	1	1
Copper Mountain	..	..	..	..	..	..	..	1	1
Totals	12	3	1	8	24	12	4	4	20

The number of persons employed underground in the coal and metal mines was 7,050, giving one mine-rescue apparatus for every sixty-one persons employed, and one oxygen resuscitating device for every 162 persons employed.

TECHNICAL CLASSES ON MINING.

Considerable interest has been maintained in this work around the coal-mining centres on Vancouver island.

SUPERVISION OF COAL-MINES.

During the year eleven coal companies operated thirteen collieries, with twenty-nine mines. In these twenty-nine mines 3,760 men were employed underground. In the supervision of these underground employees there were twenty-two managers, thirty-two overmen, and 188 firebosses and shotlighters, a total of 232 officials, or one official for every sixteen persons employed underground.

I desire to express my appreciation of the faithful co-operation and assistance afforded me throughout the year by the District Inspectors and Instructors in mine-rescue and first-aid work.

NANAIMO MINE-RESCUE STATION.

The following is the report of J. D. Stewart, Instructor at the Mine-rescue Station, Nanaimo, for the year ending December 31st, 1917:—

The equipment on hand at the station at the present time is as follows: Six sets 2-hour Draeger apparatus of the 1917 type (complete), with four spare cylinders and six adaptors for No. 1 potash cartridges; four ½-hour Draeger apparatus (complete), with eight spare cylinders; one standard pulmotor (complete) with two spare cylinders, three face-masks, and six spare rubber parts for face-masks, also four head-rings for straps for fastening same; one pulmotor, type B (complete); one litter with fresh-air hood; two high-pressure oxygen refilling-pumps with three sets of pump packing; twelve oxygen storage cylinders; ten pairs of smoke-goggles; three water-gauges and two measuring-bags; three spare pressure reducing-valves for 2-hour apparatus; two spare pressure reducing-valves for pulmotor; twenty-five spare diaphragms for 2-hour reducing-valves; two spare breathing-bags for 2-hour apparatus; two spare mouth-breathing devices; twenty-four spare guards for oxygen-cylinder valves; eight spare by-pass valves for 2-hour apparatus; twelve spare flat rubber straps for air-chambers; ten trunks for shipping apparatus and 100 feet life-line; one electro-magnet; one mould for lead plugs; twelve Ceag electric safety-lamps; twenty-two spare accumulators for Ceag lamps; twenty positive electrodes; twenty-nine negative electrodes; twelve lids for cell casings with tubes; two pounds of sulphuric acid (C.P.); six small Draeger electric safety-lamps; twelve Porox accumulators; six Edison electric cap-lamps (complete); one dozen lenses for cap-lamps (spare); one dozen safety-spring rivets (1); one dozen safety-spring rivets (2); six caps and belts for Edison safety-lamp; fifteen pounds Edison electrolite solution; half sheet celluloid paper; half pint celluloid paste; one automatic filler for Edison cells; two hydrometers; one siphon for electrolite; one voltmeter; and full stock of tools for repair-work.

Supplies on Hand, January 1st, 1917.—890 cubic feet oxygen; 106 No. ½ potash cartridges; 72 No. 1 potash cartridges; 253 No. 2 potash cartridges.

Supplies received during the Year.—1,100 cubic feet oxygen.

Supplies used during the Year.—890 cubic feet oxygen; five No. ½ potash cartridges; seven No. 1 potash cartridges; twenty No. 2 potash cartridges.

Mine-rescue Station Garage.—One Chalmers 36-horse-power five-passenger car with one spare tire (complete); two Ford runabout cars with three spare tires (complete); two car-rugs; seventy-five gallons gasolene.

Emergency Calls for Apparatus.—*On* July 9th, 1917, I received instructions from Inspector Newton that a fire had broken out in the Main heading of No. 3 slope, No. 1 North level, No. 1 mine, the property of the Western Fuel Company, Nanaimo, B.C. I immediately proceeded with six sets Draeger apparatus to the place where the fire occurred, and on my arrival I found that it was utterly impossible to reach the fire without the aid of the apparatus, on account of the excessive smoke generating from the fire, which had backed against the intake air for a distance of 400 feet from where the fire originated. Accompanied by D. Brown, the overman of the mine, and other rescue-men, we put on the machines, and with the aid of the fire-hose and a plentiful supply of water we were able to reach the affected area and in a very short time had the fire under control. I may say that if it had not been for valuable services rendered by using these machines, this No. 3 slope would have had to be sealed off, thus causing a great loss to the company as well as the mining community.

Fernie Mine-rescue Station.

The following is the report of Charles O'Brien, Instructor at the Mine-rescue Station, Fernie, for the year ending December 31st, 1917:—

There was no training carried on during the early part of the year; consequently there were no supplies used, excepting a small quantity of oxygen used in the monthly tests of the apparatus.

On March 12th Dr. Douglas Corsan, of this city, rang in a call requesting my services with the pulmotor. A man who had been engaged overhauling the local cold-storage plant of the P. Burns Company was overcome by ammonia-fumes. I immediately set out for the hospital—to where the man had been removed—and after working for three hours and a half the man was sufficiently recovered to be removed to a private ward.

On April 5th a call for the mine-rescue apparatus was rung in from Coal Creek at 10.30 p.m. I immediately shipped the apparatus aboard a special train and arrived at Coal Creek a few minutes after 11 o'clock. Unfortunately, the mine was so badly wrecked as to preclude the possibility of using the apparatus.

On September 10th a crew of officials and men from Coal Creek presented themselves for a course of instruction in mine-rescue work. These men received the usual lectures and training. On September 24th a fresh crew of officials and men from Coal Creek took up a course of mine-rescue work, completing same on October 6th.

On September 16th E. L. Warburton, of the Corbin Coal and Coke Company, Corbin, requisitioned the loan of two of our machines and two full storage tanks for the purpose of dealing with a fire which was menacing the company's property. These were loaned and returned later.

On November 25th I was instructed to proceed to Michel to give a supplemental course of instruction in the use of the "positive" type apparatus to the men who had received a regular course in the use of the "negative" type. Twelve officials and men received this supplemental course, and three others completed a full course. These three satisfactorily passed through the departmental test and the subsequent examination, and upon recommendation were granted certificates of competency in mine-rescue work. The supplies for this training were furnished by the Crow's Nest Pass Coal Company.

The number of men who took up regular training during the year was eleven, eight at Coal Creek and three at Michel.

The number of men trained in the use of the "positive" type apparatus at present in this district is sixty. The distribution of these men is as follows: Crow's Nest Pass Coal Company, Coal Creek Collieries, 42; Crow's Nest Pass Coal Company, Michel Collieries, 15; Corbin Coal and Coke Company, Corbin Colliery, 3.

The following men have lost their lives: James Steel, Mine-rescue Certificate No. 47, killed in action; Wm. R. Puckey, Mine-rescue Certificate No. 53, killed in explosion; Wm. Watkins, Mine-rescue Certificate No. 146, killed in mine cave; Wm. G. Clarke, Mine-rescue Certificate No. 148, killed in explosion; Samuel Poxon, Mine-rescue Certificate No. 152, killed in action; John Monks, Mine-rescue Certificate No. 156, killed in explosion.

The equipment at this station is the same as last year. Supplies on hand December 31st are: 500 No. 2 potash cartridges; thirty-four No. 1 potash cartridges; and about 1,600 cubic feet of oxygen.

An order for 200 No. 1 potash cartridges has been placed and is expected to arrive at any moment.

The following is the expense account for this station during the year 1917:—

Canadian Pacific Railway, freight on supplies	$ 12 27
City of Fernie, light, water, and sewer rental	50 27
Compressed Gas Co., oxygen	24 00
Crow's Nest Pass Coal Co., cement and coal	59 30
Dominion Express Co., express charges	60
Draeger Oxygen Apparatus Co., valves, gaskets	11 38
Duthie Hardware Co., supplies for aviary	6 51
Falvo, G., repairs to apparatus	11 00
Ferguson, A. E., installing furnace, plumbing repairs	136 20
Fernie Co-operative Society, bird-seed	2 20
Fernie Livery Co., draying	3 50

Instructor's transport expenses	$ 44 40
Johnson, H. J., Postmaster, postage-stamps	3 00
Kennedy & Mangan, lumber for aviary	4 25
Kootenay Telephone Lines, rent of telephones, long-distance service	77 30
McLean's Drug Store, office supplies	2 85
Quail Hardware Co., door-hinges, glass, etc.	4 35
Sanderson, H. H., keys for Edison lamps	37
Suddaby Drug Store, office supplies	2 75
Trites-Wood Co., station supplies	15 00
Total	$471 50

First-aid Work.

The following is the report of Dudley Michell, Instructor in First-aid Work:—

I have the honour to submit herewith a report on the organization of first-aid instruction in the coal and metalliferous mines of the Province, together with field mine-rescue training; for the year ending December 31st, 1917.

During the year approximately 267 mining employees attended a course of lectures on first-aid work given by the various mine doctors. The total number passing final examinations and who were awarded certificates of various grades issued by the St. John Ambulance Association is placed at 123. The location of the class, number attending lectures, and number passing final examinations is as follows:—

Place.	Passed Examinations.				Total.
	First Year.	Second Year.	Third Year.	Fourth Year.	
Nanaimo	12	8	3	..	23
South Wellington	1	1	1	3	6
Cumberland	6	1	..	..	7
Merritt	9	3	..	3	15
Princeton	8	..	..	..	8
Michel	7	6	2	2	17
Rossland	..	..	..	1	1
Anyox	32	..	..	..	32
Britannia	13	1	..	..	14
Totals	88	20	6	9	123

From the commencement of systematic first-aid training in the mining centres of the Province, until the close of 1917, there have been 850 mining employees who have passed examinations in this work.

Field Mine-rescue Training.

During the year I have conducted examinations in mine-rescue work at Extension, Anyox, and Princeton; during these examinations twenty-eight persons passed successfully and were awarded Government certificates of competency. The details of these examinations are as follows:—

Place.	Date.	No. passing Examination	Name of Company.	Instructor.
Extension	July 16-18	17	Canadian Collieries	J. Delaney and A. Campbell.
Anyox	Aug. 10-24	6	Granby Con. M.S. & P. Co.	D. Michell.
Princeton	Oct. 17	5	Princeton Coal and Land Co.	A. McKendrick.

First-aid and mine-rescue demonstrations were held at Merritt, in the Nicola Valley, and at Ladysmith, on Vancouver island, with the object of stimulating interest in the above work.

BUMPS AND OUTBURSTS OF GAS IN THE MINES OF CROWSNEST PASS COALFIELD.

Report by George S. Rice, E.M., Chief Mining Engineer, U.S. Bureau of Mines.

Office of Chief Mining Engineer,
U.S. Bureau of Mines,
Washington, D.C., March 1st, 1917.

Hon. William Sloan,
Minister of Mines, Province of British Columbia,
Victoria, B.C.

Dear Sir,—I have the honour to submit the accompanying report of my investigations into the causes and possibilities of avoidance in future of the disastrous "bumps" which occurred in the year 1908 and recently in November, 1916, in the Coal Creek mines of the Crowsnest Pass field; and incidental to that inquiry, what precautions might be taken in regard to outbursts of gas.

In response to a request for my services made by your Department to the Director of the United States Bureau of Mines, I was detailed to undertake the investigation, and accordingly arrived at Fernie, B.C., on December 2nd, 1916. There I was met by W. F. Robertson, Provincial Mineralogist; Thomas Graham, Chief Inspector of Mines for the Province; T. H. Williams, Inspector of the Coal Creek District; and George O'Brien, Inspector of the Michel District. These gentlemen, during the two weeks of my investigation, accompanied by the officials of the different mines, and at times by W. R. Wilson, general manager of the Crow's Nest Pass Coal Company, escorted me in and about the mines at Coal Creek and Michel, explaining the mining conditions and methods, the nature and circumstances surrounding the occurrence of the "bumps" and outbursts of methane or fire-damp.

I am also indebted to W. R. Wilson, general manager, and the various officials of the Crow's Nest Pass Coal Company, the only company now operating in the main Crowsnest field, for the courtesies extended during my investigation. Every facility was offered in visiting the mines, in obtaining information, and the services of the efficient engineering department of the company were freely given for the preparation of maps, sections, and other data.

Before leaving Fernie I drew up a preliminary report, copies of which I handed to Messrs. Robertson and Graham, so that there might be no delay in presenting my views to them as to the dangers threatening and precautions already taken at the initiative of the mining company, as well as by order of the Chief Inspector of Mines. This report recommended that permission be given to the company to reopen and use certain entries in the No. 1 East mine passing through the area most seriously affected by the "bumps" and in which work had been temporarily prohibited by Mr. Graham.

The general conclusions given in the preliminary report, which in the main features are adhered to in this final report, were arrived at after many conferences locally with those best qualified to give explanations of the phenomena encountered in the past and suggestions concerning the geologic and other natural conditions found in mining, together with the best means of meeting the difficulties.

Suggestions of special importance were received from Messrs. Robertson and Graham, and General Manager W. R. Wilson, the latter showing breadth of vision in the consideration of future work and methods of overcoming difficulties, and rendering my task far easier, by presenting a plan of future workings of the Coal Creek mines on the south side of the valley that met practically every suggestion that I had to make in the matter of safety in working.

During the investigation many samples of gas and coal, as well as of coal-dust, the latter for determining the explosibility hazard, were taken and sent to the Bureau of Mines Laboratory at Pittsburgh for analysis and special testing. These laboratory investigations, some of which

involved special methods of handling, have now been completed and show some most interesting results, and should my recommendation for a permanent commission for continuing the investigations into the geophysical and mining conditions of the Crowsnest field be carried out, would be very suggestive of certain lines of further investigation.

I trust that this report may be of value in helping to point out what may be done to make mining safer in the Crowsnest coalfield, which is of such great importance through its extensive fuel resources to the Province of British Columbia and the adjoining regions.

Very respectfully yours,

GEORGE S. RICE.

SUMMARY OF PRINCIPAL FINDINGS CONTAINED THEREIN.

The Crowsnest field is regarded by Canadian geologists as the most important coalfield in British Columbia.

This field presents unusual natural difficulties, because the coal-beds are at the base of an elevated plateau; it is impossible to reach the coal except through outcrop; the coal is also under a heavy load requiring great care in mining to prevent squeezes and "bumps."

The coal-beds are very gaseous; that is, they have large methane (fire-damp) flows at Coal Creek and Michel; and at Morrissey outbursts of gas occur unequalled except in certain mines in Belgium.

"Bumps" are not related to gas-outbursts, but they may occur, as in the State of Washington and in Great Britain, where the overlying rocks are rigid and there is great weight of cover, and when mining has either extracted too much coal in advance mining or it has not been taken out completely, starting from the outcrop, which would break the overlying rock in successive slices and thus prevent "bumps."

"Bumps" are believed to be caused by the subsidence of the roof in certain areas under rigid rocks, leaving a great unsupported span of rock stratum. When one of these has given way it means the hammer-like blow of thousands of tons of rock striking on the immediate roof or flexible stratum overlying the mine, which imparts the blow downward, breaking timber, causing extensive falls in the mine, and sending rock-tremors through the strata.

Improper mining in No. 2 mine was the cause of "bumps" in that mine in 1907-8, and in turn the subsidence over this area affecting the strata higher up caused the recent "bumps" in No. 1 mine.

"Bumps" may occur in future over the same area, but, it is probable, with decreasing force, as the rock stratum broken down in each case has less distance to fall, has less load, and is more distant in height above the mine.

If the measures proposed are carried out—viz., of taking out less than 15 per cent. of coal on the advance and taking down the rash and roof coal in the working-places in No. 1 mine—there is comparatively small danger to life for the men employed underground.

To give warning of impending outbursts of gas in certain dangerous zones with the advance of the working-places, long drill-holes should be kept drilled in advance.

To provide for the large regular flows of methane, well-kept-up airways of large area and powerful fans should be employed, with ample margin of capacity.

A permanent commission should be formed to further investigate and review the evidence collected by members of the commission, the Inspectors of Mines, and others, having among its membership a geologist, a mining engineer, a chemist, and an experienced mine operator.

GENERAL STATEMENT ABOUT "BUMPS" IN COAL CREEK MINES AND CALL FOR INVESTIGATION.

During the years 1906 to 1908 a series of "bumps," causing loss of life, occurred in the No. 2 mine at Coal Creek in the Crowsnest coalfield of British Columbia. Prior to this, "bumps" had been noted, but had not been considered serious. In January, 1907, the first loss of life occurred through a "bump," and after that time others occurred of increasing intensity, until on July 31st, 1908, four men were killed and twenty others temporarily entombed and narrowly escaped suffocation from gas. A great volume of gas was liberated by the "bump," accompanied by breaking-down of return overcasts and complete blocking of the main entry for 600 feet.

This disastrous "bump" caused the mining officials of the Province to set off a district in the No. 2 mine in which working was prohibited on account of the dangers from the "bumps."

As a further result a change was made in the system of mining, under which less than 25 per cent. of the coal is taken out, the balance to remain in pillars until the selected boundaries have been reached and the retreating work begun. The No. 1 East mine had then been started in the so-called No. 2 bed, lying about 150 feet vertically above No. 2 mine. It had been opened out unsystematically along the outcrop, but a change of plans was made, and the mine was developed on systematic lines, with narrow rooms and large pillars. The mining development was vigorously pushed from 1907 to the present, until the area of workings covered and extended beyond the area over the abandoned, prohibited district of the No. 2 mine.

Everything proceeded nicely, except for the large flows of methane encountered in the development of the mine, until 1916, when, without preliminary warning, on the nights of November 7th and 8th, three "bumps" occurred, the first two somewhat local in effect, but the third of tremendous force, which broke down timber and shook down falls of roof through a large part of the active mine-workings. It caused earth-tremors which were felt for miles, not only in Fernie, five miles away, but in other towns to the north and south of Fernie. This was all the more extraordinary as Fernie lies on a great shale-bed underlying the coal-measures.

In spite of the intensity of the "bumps" and the great destruction in the workings, only one man was killed. This death resulted from the second "bump"; several men were badly bruised in the third great "bump," and some of the escapes of the men in the mine were almost miraculous on account of the great area of roof which had fallen. Had this great "bump" occurred during the day shift the loss of life could not but have been very great, as areas in the rooms and entries through the most active working section, aggregating thousands of feet in length, were heavily caved.

A fourth, milder, and more local "bump" occurred on November 13th, and, after the investigations here reported, another "bump" of considerable severity occurred on January 12th, 1917, according to communication from Mr. Graham, affecting the west return airway for several hundred feet outby the No. 11 West. Lesser "bumps" not causing violent vibrations are heard from time to time, the sound being like a heavy knock or a distant blast.

As a result of the "bumps" of November 7th and 8th, the operating company, the Crow's Nest Pass Coal Company, and the Department of Mines of British Columbia were deeply concerned for the immediate and the future safety of the mine, especially on account of the danger to the mine-workers. Accordingly, Thomas Graham, Chief Inspector of Mines, temporarily prohibited work in certain large areas of the No. 1 East mine (inby the No. 10 East and No. 10 West). The writer was invited by the Minister of Mines, through the Director of the United States Bureau of Mines, to investigate and report upon the nature of the "bumps," and, if such are unavoidable, how danger to the underground workman might be minimized. The invitation being accepted, the writer journeyed to the Crowsnest field and investigated, in December, 1916, several Coal Creek mines and the Michel mines, at the north end of the field. He inspected practically all accessible workings, arranged the taking of samples of gas, coal, and of coal-dust, and the drilling of test boreholes in advance of, or at the side of, selected working-places to determine the gas-pressures. He conferred with all the mining men who could throw light on the problem, especially W. R. Wilson, General Manager of the Crow's Nest Pass Coal Company; W. F. Robertson, Provincial Mineralogist; Thomas Graham, Chief Inspector of Mines of the Province; T. H. Williams, Inspector of the Coal Creek District; G. O'Brien, Inspector of the Michel District; and many mine officials of the company. He is greatly indebted to all of those named for the information secured for this report—to Mr. Michell, Mining Assistant to Mr. Graham, who took charge of the sampling, also of the test boreholes drilled to obtain gas-pressures, and to A. C. Fieldner, Chemist of the United States Bureau of Mines, who made analyses and who developed a new method of testing coal samples for the amount of occluded gases given off in crushing the coal.

Nature of Bumps and Outbursts.

Before proceeding to a more detailed statement of the phenomena of "bumps" and "outbursts" in the Crowsnest field it will be well to define what is meant by such terms, both as applied in the Crowsnest field and in other mining districts of the world. W. F. Robertson, in

his report on "bumps" in the Crowsnest coalfield, published in the Annual Report of the Minister of Mines for 1908, stated:—

"The term 'bump' is somewhat descriptive of the sensation produced by their occurrence a certain distance away—a sudden jarring of the mine, produced by the sudden giving-away or cracking of the strata above or below the coal-seam."

Thomas Graham, at a meeting of the Mine Inspector's Institute of the United States of America at their Joplin, Missouri, meeting on June 13th, 1916, in an instructive paper entitled "Some Gaseous Mines in the Crowsnest Pass Coalfield," states:—

"The term 'bumps' is a somewhat local expression used to describe the ominous signs that betoken the movement of the strata overlying the several seams operated in the Crowsnest Pass coalfield. These 'bumps,' although accompanied by more or less heavy discharges of gas, are not in the nature of outbursts of gas and coal described." (Mr. Graham had described outbursts at the Morrissey Colliery.)

It is to be noted that the recent (November, 1916) "bumps" in the No. 1 East mine were not accompanied by outbursts of gas. Miners sometimes use the term "bump" to designate small disturbances local in their nature, due apparently to issuance of gas at the face of the mine, accompanied by loud cracking or knocking sounds in the roof or in the face-coal which may be thrown down. "Bumps" are not confined to the Crowsnest field; apparently the term originated in Great Britain, as violent "bumps" occur frequently in mining the 10-yard seam of South Staffordshire, the writer was informed in visiting that district in 1908, and evidently had been known for years. "Bumps" occur in the Carbonado mines in the State of Washington, also in the Sunnyside mines of Utah. The characteristic features in common are thick or deep cover over the coal-bed, and this cover contains a series of massive rigid rocks like conglomerates or massive sandstones.

It therefore seems best to apply the term "bump" to designate the very violet effect produced by profound rock-movements resulting in earth-vibrations, which on a large scale would be called an earthquake. The effects are quite different from those produced by "outbursts" of gas, mine "squeezes," or "falls" of insufficiently supported roof. The two latter phenomena, as well as "bumps," may or may not be accompanied by release of gas. On the other hand, "outbursts" of gas themselves are not productive of earth-vibrations. Accordingly, it seems wise to distinguish between the phenomena mentioned, although both "outbursts" and "bumps" have this in common, that of great thickness of cover over the coal-bed.

Air-blasts.

That gas contained in the strata under high pressure is not a cause of "bumps" is indicated by the non-occurrence of "bumps" as an accompaniment of gas-outbursts which occurred in the Morrissey collieries, described by Mr. Graham in the paper referred to. Nor are "bumps" reported in the mining regions which are subject to disastrous "outbursts," for example, of methane in the Belgian coalfields and of carbon-dioxide gas in mines in a certain coal-basin of Central France.

On the other hand, in certain metal-mines which do not give off any gas when great depth is attained, as in the deep Lake Superior copper-mines, and the deep gold-mines of South Africa and elsewhere, serious "air-blasts" have occurred of a nature very similar to "bumps."

Crowsnest Coalfield.

The Crowsnest coalfield is spoken of by Mr. Dowling in Memoir 59, "Coal Fields and Coal Resources of Canada" (excerpt from "Coal Resources of the World," published under the auspices of the Twelfth International Geological Congress), as being "*the most important body of coal that is being mined in the Province.*" It is an elevated trough, narrow at the north end and wide at the south, the southern part broadening toward the south-east. (*See* Exhibit 1, which is Plate VI. from atlas accompanying the "Coal Resources of the World.") The extreme length north and south is thirty-five miles, and the greatest width along the southern half, a little south of Coal Creek, is thirteen miles. There are also some outlying patches of coal in high mountains farther to the east. The field covers 230 square miles, and is estimated to contain, according to a report issued on "Coal Resources of the World," in seams over 1 foot thick, 22,595,000,000 tons of bituminous coal in "actual reserve," 20,750,000,000 tons in "probable reserve," and 2,160,000,000 tons in beds 2 feet thick and over at depths greater than 4,000 feet

and less than 6,000 feet, which might be expressed by the term "possible reserves"; this making the total reserves 45,505,000,000 tons.

Sections of Coal-measures.

Number of Seams over 1 Foot Thick, Aggregate Thickness of Coal and Thickness of Coal-measures in Three Typical Sections.

Locality of Section.	Number of Seams.	Total Thickness of Coal.	Thickness of Coal-bearing measures.
		Feet.	Feet.
Morrissey	23	216	3,676
Fernie	23	172	2,250
Sparwood—			
Upper measures	23	173	2,050
Lower measures	24	43	2,015

The data regarding the Crowsnest Coalfield was obtained from Memoir No. 59, "Coal Fields and Coal Resources of Canada," prepared by D. B. Dowling, of the Geological Survey of Canada, for the Twelfth International Geological Congress, and from Thomas Graham's paper, "Some Gaseous Mines in the Crowsnest Pass Coal Field," also from some personal observations in the vicinity of Coal Creek and Michel.

A number of seams are too thin and too impure to mine with commercial success at the present time, and it is considered that the available coal does not have an aggregate thickness, in beds over 3 feet thick, of more than 100 feet. Some of the thickest beds, 10 to 20 feet thick, owing to friability of the coal and poor roof, cannot under present conditions be cleanly mined out, and there is in consequence much loss of coal.

Most of the marketable coal-beds are in the lower part of the coal-measures, which, geologically speaking, are in the Kootenay formation of the Lower Cretaceous series. The Fernie shales, 2,600 feet thick, underlie the Kootenay formation, but there appears to be some doubt whether these shales belong to the Lower Cretaceous or the Jurassic.

The Crowsnest basin has been buckled into a north-and-south synclinal trough by the great dynamic forces pressing from either side (east and west) in the uplifting of the Rocky Mountain ranges. As a consequence, around the edges of the basin the beds have been steeply uplifted. (*See* photograph, Exhibit A.) While the more rigid sandstones and conglomerates overlying the more important coal-seams have protected the latter, there is abundant evidence of thrust under the capping rocks acting laterally on the coal-beds along the margin of the field and squeezing the coal in some places to increased thickness and badly crushing it. There is evidence also of a general lateral movement which has taken place in the plane of the No. 1 coal-bed, as demonstrated by a slickensided and rolled shale-band in the upper part of the coal-bed. Also there has been some local faulting and buckling of the coal-beds, which causes much difficulty in mining operations.

The anticlines produced on either side of the coal-basin by the profound east-and-west thrusts have been deeply eroded and valleys thus formed. This has led to the basin, protected by the overlying hard sandstones and conglomerates, becoming an elevated plateau.

The Elk river runs along the west side, in the Fernie shales. The elevation of the Elk River valley above sea-level at Sparwood, near the north end of the field, is 3,637 feet; at Fernie, 3,365; and at Morrissey, opposite the south-west corner of the field, is 3,101. Along the east side of the plateau the elevation of the valleys is from 4,000 to 5,000 feet. The escarpment of the plateau is from 6,000 to 7,000 feet above sea-level, the highest points rising from 300 to 400 feet above this.

The dips of the coal-beds from the edges of the basin probably carry the lowest beds down, in the middle of the trough, the depths where under the higher ridges there is from 3,500 to 5,000 feet of cover above the lower beds. Over the present advance workings of the Coal Creek mines the maximum cover is from 2,000 to 2,500 feet thick (*see* vertical cross-sections prepared by the coal company engineers, Exhibits 2 and 3), consisting largely of massive sandstones and conglomerates in the upper part. The outcropping rocks form bold escarpments skirting the valleys and sharp projecting spurs. (*See* photographs A to E.)

DESCRIPTION OF COAL-BEDS.

The coal-beds in any one locality are well defined, but it is difficult to carry the identification from one locality to another, because the coal-beds change their characteristics and the immediate rocks, shales, and sandstones lack distinctive features. The coals in the different beds that have been worked at Coal Creek, Hosmer, and Michel do not differ much in chemical composition and are coking-coals, but the coal at Morrissey had evidently been subjected to more intense crushing and the percentage of fixed carbon is higher. As only the Michel and Coal Creek mines could be entered, the description of the coal-beds now mined will be limited to these.

Michel Coal-bed Sections.—The principal bed mined at Michel is intersected by a fault parallel with the strike of the beds. Its section is as follows:—

Sections of Coal-bed No. 3 East, Michel Colliery.

Above Big Fault. Hard Rock Roof.		Below Big Fault. Hard Roof.	
Cap-rock	1′ 6″		1′ 6″
Coal	2′ 6″		4′ 0″
Shale (mining)	0′ 8″	(Bone)	0′ 6″
Coal	3′ 0″		3′ 0″
Rock	0′ 2″	(Rock, hard)	1′ 2″
Bone and coal	0′ 9″	(Shale)	0′ 6″
Coal	3′ 6″		
Shale	1′ 5″		6′ 0″
Hard rock floor — Coal, net thickness	9′ 0″		13′ 0″

Old No. 3 mine, Michel Colliery, which adjoins the foregoing, works two beds, with an interval of 110 feet between. The upper one, which is understood to correspond with the bed worked in No. 3 East, attains a thickness of 16 feet of coal.

Coal Creek Coal-bed Sections.—A general section showing six seams which have been more or less prospected are best shown in the sections east to west and north to south at the Coal Creek Colliery (Exhibits 2 and 3). Of these, only Nos. 1 and 2 have been found to be commercially minable at present. Normally these beds are from 75 to 150 feet apart, but in a certain "crumpled zone" (*see* map, Exhibit 4) in the west parts of No. 1 East mine and No. 2 mine the beds come together.

Section of No. 2 Coal-bed.

Roof, strong shale, in some places sand, shales, and sandstone.	
Coal	3′ 6″ to 8′ 0″
Rock with streaks of coal	1′ 8″
Coal, high in ash (gaseous)	1′ 4″
Floor, shale.	

Section of No. 1 Coal-bed.

(75 to 150 feet above No. 2 bed.)

Main roof, massive shale and sandy shale.	
Roof, coal clean, friable	2′ 6″ to 3′ thick.
Rash, slickensided shale with coaly layers	1′ to 4′ „
Coal, columnar structure, soft, clean	9′ to 13′ „
Floor, shale (strong).	

KIND OF COAL IN CROWSNEST FIELD.

The Crowsnest field produces a good grade of bituminous coal, the different beds in any one locality having about the same kind of coal. Except at Morrissey, where the fixed carbon is too high to permit making coke in bee-hive ovens, the coal makes a good metallurgical coke. There are 440 ovens at Fernie coking Coal Creek coal, and 480 at Michel.

Following are analyses of the coals produced by different collieries, as given on page 116 of Memoir 59:—

Analyses of Samples taken in Coal Creek Mines, December 1st to 13th, 1916.

Colliery.	Moisture.		Proximate Analysis of Dried Coal (Moisture-free).			Dried Coal.	
	Mine Lasis.	Air-dried Basis.	Volatile.	Fixed Carbon.	Ash.	Sulphur.	B.T.U.
Michel—							
No. 3	1.4	0.4	24.8	62.7	12.5	0.5	13,270
No. 7	1.9	0.7	22.6	65.5	11.9	0.4	13,360
No. 8	3.0	1.1	24.1	65.7	10.2	0.6	13,480
Hosmer—							
No. 2	1.7	0.9	21.3	63.4	15.3	0.3	12,710
No. 6	2.6	1.1	25.6	62.0	12.4	0.6	13,090
No. 7	4.0	1.3	28.0	64.5	7.5	0.6	13,990
Coal Creek—							
No. 2	2.2	1.3	26.3	64.7	9.0	0.5	13,820
No. 5	1.6	0.5	24.0	65.2	10.8	0.5	13,480

The samples were taken in certain places in the Coal Creek mines by Mr. Michell, under the direction of the author, and analyses made at the United States Bureau of Mines Laboratories at Pittsburgh by A. C. Fieldner, chemist. The samples were gathered at the respective points, ten in all, and immediately placed in tight jars (Mason jars). On reaching the Pittsburgh laboratory they were treated in one of two ways: Three samples were analysed for moisture as received, moisture when dried, volatile matter, fixed carbon, and ash; also the calorific value was determined. The other seven were opened under water to determine the amount of gas that had been given off since gathering; hence the moisture as received could not be determined, but the other components were determined, as in the first lot. While the jars had rubber gaskets and were wrapped with insulating-tape, it was evident that gas in each case had escaped, in transit, as in all cases gas and air in mixture in the cans was at atmospheric pressure.

The samples were not taken by the standard method of sampling by picking a groove from top to bottom of the coal-face, but by gathering nut-sized pieces from top to bottom. This was done to obtain sampling for testing for occluded gas at the laboratory, but there is some question if such a sample is an average of the face at the respective points of sampling in the matter of ash content, but it is not probable that there is any essential difference in the ratios of the other constituents.

The special purpose in taking these samples was to determine, in conjunction with a series of road-dust and rib-dust samples taken at the same time, the explosibility of the coal-dust found in the Coal Creek No. 1 mine. Also for this purpose a large 3½-ton sample of coal was obtained from the face of the mine and shipped to the experimental mine at Bruceton, Pa., where it was crushed, pulverized, and tested. Similar coal-, rib-, and road-dust samples were sent from the Nanaimo mines, Vancouver Island, B.C. The results obtained in the tests form the subject of special reports to the Chief Inspector of Mines of British Columbia by the United States Bureau of Mines.

Face Section Samples, Coal Creek Mines.

Colliery.	Location in Mine.	Can No.	Lab. No.	Moisture, Mine Basis.	Proximate Analysis (Air-dried).				Dried Coal.	
					Moisture.	Volatile.	Fixed Carbon.	Ash.	Sulphur.	B.T.U.
Coal Creek—										
No. 1 E.	Face, 10 East	3	27155	1.08	0.50	23.25	63 60	12.65	0.31	13,529
No. 1 E.	Face, 1 N	5	27157	1.58	0.50	21.35	65.05	13.10	0.34	13,462
No. 3	Face, Main level	16	27158	1.12	0.70	24.05	66.05	9.20	0.57	14,081

Face Section Samples, Coal Creek Mines—Concluded.

NOTE.—As the following samples were used for making occluded gas determinations, the moisture was not determined.

Colliery.	Location in Mine.	Can No.	Lab. No.	Proximate Analysis (Air-dried).				Dried Coal.	
				Moisture.	Volatile.	Fixed Carbon.	Ash.	Sulphur.	B.T.U.
Coal Creek—									
No. 1 E.....	Face, No. 22 room, 10 E ..	2	27154	0.55	24.78	65.17	9.50	0.31	14,047
No. 1 E.....	Face, No. 1 room, 9 E ..	4	27156	0.40	24.23	66.52	8.85	0.32	14,063
No. 3.....	Face, No. 2 incline	17	27159	0.55	28.52	63.83	7.10	0.54	14,319
No. 2.....	Face, Main level	18	27160	0.55	27.17	70.28	2.00	0.41	14,260
No. 2.....	Face of E. slope.....	19	27161	0.45	26.99	68.46	4.10	0.45	14,879
No. 1 S.....	Face of Main level.....	20	27162	0.45	27.80	65.35	6.40	0.27	14,602
No. 1 S.....	Face of No. 5 incline.....	21	27163	0.60	26.86	67.84	4.70	0.33	14,837

NOTE.—The above samples are reported on a slightly different basis than the previous analyses quoted from the Canadian Survey Report, in which the coal was reported on a moisture-free basis. The above analyses are on air-dried basis.

GASES GIVEN OFF BY COAL-MEASURES.

It is a normal condition in deeply bedded coal to find hydrocarbon gases both in the coal itself and in the enclosing rocks. There is, however, the widest difference in the amount of gas encountered by mining in the various coalfields, and almost as great a difference between different beds in certain coalfields. Some coal-beds are considered non-gaseous, although practically every bed gives off a little gas, but unless it gives it off fast enough to accumulate as a body of gas it is usually rated as non-gaseous.

Gas is held in the strata in two ways:—

(1.) A filling of the pores of the crevices, cracks, and bedding-planes under more or less pressure, so it is given off rapidly when it is liberated by the advance of the mine-workings, or where it occurs in a roof stratum when the roof material breaks down, or there is a slip which intersects a main slip, crevice, or rock-joint in which the gas may be stored under pressure.

(2.) The other form is stored in cells of the coal and is commonly known as "occluded" gas. Such gas is liberated slowly when the coal is broken, and with each crushing of the coal more gas is liberated. With some kinds of coal there is comparatively little gas released; in other coals there is a large amount. Generally, when there is a large amount of so-called "occluded" gas, the crevices and cracks of the strata are also charged with gas.

The amounts of gas thus held in the coal, which for want of a better term will be called "occluded" gas, in different districts has been summarized in Bulletin 72 of the United States Bureau of Mines, by N. H. Darton, entitled "Occurrence of Explosive Gases in Coal Mines."

In many of the investigations which have been made to determine the amount of gas given off by broken coal, the coal has been heated. This is not a proper method of determining, as then there is more or less destructive distillation. When the tests have been made using atmospheric pressures, the volume of gas from a unit of coal has been found to vary from one-half to one and a half times the volume of the solid coal. When finely crushed and kept standing for six months, anthracite coal gave off 1.83 of gas, chiefly methane. For shorter periods the quantity given off was very much less than one volume. This Chamberlain found to be true of other coals, so that in comparing one kind of coal with another the question of size of crushing and length of time seems to be an important factor. It is necessary to know the procedure followed by experimenters in making comparison of results, since as yet there has been no standardization of method.

OCCLUDED GAS IN COAL FROM COAL CREEK MINES.

A series of special samples of nut or egg size were taken in the Coal Creek mines in different headings and rooms, put into Mason jars at the point of sampling, sealed, and sent to the Bureau of Mines, Pittsburgh Laboratory. Ten samples were taken, Laboratory Nos. 27154 to 27163, inclusive, and on reaching Pittsburgh seven of them were opened under water and were found to contain from 0.06 to 0.25 volumes of methane per volume of coal. There was a little carbon

dioxide, and it will be noted in the analyses given in the table, which follows later, that there was little oxygen. That sealed in with the coal had largely been absorbed by the coal.

It is evident from a study of the gas analyses that there was escape of gas from the containers; oxygen plus carbon dioxide is much lower in ratio to the nitrogen than should be the case. The gases in the cans on arrival were found to be at atmospheric pressure.

Method of Grinding the Coal in Vacuo.

Tests were made on one of the samples from Coal Creek, Can No. 16, Laboratory No. 27158, to determine the amount of gas given off while the coal was being ground and subsequently in vacuo, in an apparatus devised by A. C. Fieldner, Chemist of the Bureau of Mines. The method, it later appeared, was first used by a Frenchman, Henri Ghysen, in 1902, but apparently without results of importance.

For comparison, a sample of coal from the Pittsburgh, Pa., experimental mine was similarly treated, and likewise at a later date several samples from Nanaimo mines, British Columbia. The latter samples had been sent by the Chief Inspector of Mines, Mr. Graham, in conjunction with samples of coal and dust for explosibility testing at the experimental mine. The method used by Mr. Fieldner is as follows:—

Immediately after opening the sealed glass fruit-jar, in which each separate small sample was taken and sealed at the face of the mine and then shipped to Pittsburgh, the large lumps were quickly broken to pass through a ½-inch screen. All that passed through a ¼-inch screen was rejected; 125 grammes of the ¼- to ½-inch coal was at once placed in a gas-tight steel ball-mill (constructed in the Bureau's instrument-shop) containing flint pebbles, and the mill was rapidly evacuated to 3 mm., mercury pressure. The air and gas evolved by the coal during the evacuation was collected, measured, and analysed. Inasmuch as only a few cubic centimetres of gas were removed from the coarse coal during evacuation, it was assumed that practically no occluded gas would be lost during the preliminary operations.

The evacuated mill was rotated two hours, which by a preliminary test was shown sufficient to permit 90 per cent. of the coal to pass through a 200-mesh screen. (Apparently the fine grinding is the important factor in getting results so different than found by previous laboratory investigations.) The mill was then connected to a mercury-pump and evacuated; the gas collected over water, measured, and analysed.

The samples were ground "as received" from the mine and not air-dried. Several of the samples were ground submerged in water, in order to prevent the effect of heat from grinding, as it had been suggested that ethane and propane might have been produced through such heating. This, however, did not prove to be the case. The results are given in the following table:—

Occluded Gases in Coal.

Sample No.	16	Pgh. coal
Laboratory No.	27138	...
Weight coal (grammes)	125	125
Quantity and analysis of gas pumped out of ball-mill before and after grinding—		
Before grinding—		
Total volume gas c.c.*	1,493	1,517
Analysis per cent.—		
CH_4	0.36	0.08
C_2H_6	...	...
CO_2	0.40	0.13
O_2	20.75	20.76
N_2	78.49	79.03
After grinding—		
Total volume of gas c.c.*	263.0	65.6
Analysis per cent.—		
CH_4	15.3	10.2
C_2H_6	59.8	4.7
CO_2	2.8	12.0
O_2	2.1	2.6
N_2	20.0	70.5

* At 0° C. and 760 mm. pressure.

Total occluded gases in c.c. per 100 grammes coal*—		
CH_4	37.6	6.6
C_2H_6	126.0	2.5
C_3H_8	...	...
CO_2	11.9	8.3
N_2	24.4	31.5
Total c.c.	199.9	48.9

It will be noted that 100 grammes of the British Columbia coal gave off 163.6 c.c. of methane plus ethane, and 100 grammes of Pittsburgh coal gave off 9.1 c.c. of methane plus ethane. Also in the former coal ethane was the predominating combustible gas. No CO or hydrogen was obtained from either coal. Mr. Fieldner comments that it is unfortunate that the containers leaked in transit. Had they been absolutely gas-tight it is certain that much more gas would have been obtained prior to grinding.

It appears that on evacuating the containers ethane is removed from the coal in addition to methane. No ethane was found in the gas surrounding the coal in the glass container. Neither has ethane been found thus far in the blower-gas samples from these or other mines investigated by the United States Bureau of Mines. It was suggested that possibly the ethane resulted from a heating effect during grinding of the coal in the ball-mill. Therefore, Mr. Fieldner had the experiment repeated, but grinding the coal while wet; i.e., the coal was actually covered with water in the mill while being ground. Ethane was again obtained in much the same ratio as before. Hence there is no reason to suspect decomposition by heat. Other investigators have found ethane in the gases pumped out of coal, although not in such large proportions.

Mr. Fieldner suggests valuable information might be obtained by employing some special gas-tight containers into which the fresh British Columbia coal could be put after screening at the face of the mine. The sealed container should be so designed that on arriving at the laboratory it could be connected directly to a vacuum-pump, the gases removed, and then placed in a suitable machine for rotating it so as to pulverize the coal in vacuo, and again remove and measure the gas.

Analyses were made by F. M. Seibert of gases found in glass fruit-jars containing samples of fresh coal taken by Mr. Michell, of the inspection service of British Columbia, at various working-faces of Coal Creek Colliery, British Columbia, December 7th to 13th, 1916, and sealed immediately. Analyses were made after arrival of samples at Pittsburgh, January 4th to 8th, inclusive.

COMPOSITION OF GAS IN COAL SAMPLE CONTAINERS.

Sample No.	Lab. No.	Weight of Coal.	Total Volume of Gas.	Total Volume of CH_4.	Percentage of Composition of Gas.				C.C. CH_4 per Gram of Coal.
					CH_4.	CO_2.	O_2.	N_2.	
		Grammes.	C.C.	C.C.					
17	27159	737	286	184	64.1	1.4	1.0	33.5	0.25
18	27160	788	366	90	24.6	0.9	4.4	70.1	0.11
19	27161	905	301	81	27.0	1.2	3.2	68.6	0.09
20	27162	827	338	53	15.8	0.4	1.2	82.6	0.06
21	27163	...	264	..	0.3	1.6	20.0	78.1	....

It was evident that all the containers permitted escape of gas in transit, as in all cases the contents of the cans were at atmospheric pressure. It will be noted the above gases contained no ethane.

OCCLUDED GASES IN NANAIMO COAL.

Subsequent to testing the Coal Creek and Pittsburgh coal in vacuo, samples were obtained from the Nanaimo mines of Vancouver Island, B.C., which had also been sent for explosibility

* Corrected for air leaking into ball-mill during grinding as indicated by the oxygen percentage.

testing. Incident to that inquiry, tests were made of the gases given off by the coals, using the method of fine grinding in vacuo. The results are given in the following table, including for comparison those of the Coal Creek and Pittsburgh coal previously reported in detail.

Occluded Gases in Coal from Pittsburgh, Pa.; Coal Creek, B.C.; and Nanaimo, B.C., at 760 MM. and 0° C.

Mine.	Sample.	C.C. per 100 Grammes of Coal.							
		Total.	N.	CO_2.	CH_4.	C_2H_6.	C_3H_8.	Total Paraffins, Hydrocarbons.	
								C.C.	Vols.
Pittsburgh, Pa.	..	48.9	31.5	8.3	6.6	2.5	....	9.1	0.12
Coal Creek, No. 3.	16	199.9	24.4	11.9	37.6	126.0	....	163.6	2.12
Nanaimo coals—									
No. 1, Western Fuel	10	139.0	51.3	3.1	62.7	21.9	....	84.6	1.10
No. 1, "	11	169.4	9.0	2.0	128.6	29.8	....	158.4	2.05
Reserve mine *.	1	46.9	43.1	1.3	....	1.0	1.5	2.5	0.03
"	2	69.6	40.5	2.9	....	20.5	5.7	26.2	0.34
" †.	2	28.7	14.2	0.2	....	10.7	3.6	14.3	0.19
" ‡.	2	16.7	14.1	0.3	2.0	0.3	....	2.3	0.03
" †.	3	48.2	13.5	0.1	21.0	13.6	....	34.6	0.45
" †.	4	24.0	14.8	0.3	....	1.8	7.1	8.9	0.11
" ‖.	4	....	....	0.5	....	6.0	3.6	9.6	0.12
"	5	37.9	20.1	0.9	....	5.0	11.9	16.9	0.22

* Result approximate as to absolute quantity, as a little gas was lost in making the measurement.
† Ground in vacuo but under water, grinding not so fine as when dry.
‡ Not ground fine.
‖ Ground in atmosphere of nitrogen; hence nitrogen given off by coal could not be determined.

No carbon monoxide nor hydrogen in any sample. Samples 2 and 4 ground in atmosphere of hydrogen, which was absorbed to greater volume than the other gases evolved; in the case of 5 the contraction was 51.3 c.c.

Analyses of Blower-gas Samples from Coal Creek Mines.

Following are the analyses of gas from blowers issuing from special boreholes in the rib-side of headings in the Coal Creek mines analysed (*a*) by the Canadian Department of Mines, and (*b*) by the United States Bureau of Mines:—

Location in Mine.	CO_2.	O_2.	CH_4.	N.	Air.	Excess N.
1. No. 1 East mine, No. 1 borehole, 18 room, 10 East (*a*).	0.07	13.3	30.7*	55.3	63.5	5.3
Bottle broken in transit (*b*).						
2. No. 1 East mine, No 1. borehole, 22 room, 10 East (*a*).	0.07	14.7	22.8†	61.8	70.2	7.0
" " " (*b*).	0.10	20.69	0.14	79.07	....	....
3. No. 1 East mine, No. 3 borehole, Counter main level (*a*). . . .	0.8	17.7	10.7‡	70.8	84.5	4.8
" " " (*b*). . . .	0.89	18.27	11.64	69.20	....	0.5

Notes by Analyst, Canadian Department of Mines:—
* No ethane present. Presence of hydrogen in small quantities seems evident.
† No ethane or hydrogen detected in sample.
‡ Probably trace of hydrogen.

It will be observed that analyses of duplicate samples 2 (*a*) and 2 (*b*) disagree badly. It is conjectured that the wax stopping of one or both of these samples and 3 (*a*) and 3 (*b*) failed in transit.

Review of Gas Analyses.

Regarding the analyses of gases from the boreholes as the samples were gathered from special boreholes drilled to obtain pressures as hereinafter described (page 19), these boreholes being cased with pipe set in cement, it is improbable that air could have leaked into the holes from which the gas issued with some pressure. The gas was collected in evacuated tubes, the

tube-opening being held in the mouth of the casing. Either air entered at the point of collection, in spite of the care exercised by George O'Brien and D. Michell, or the wax stopper permitted entrance of air in transit. Nevertheless, it will be observed that there was from 5 to 7 per cent. of nitrogen in excess of that of normal air; hence it is probable that nitrogen is a constituent of the gases given off by the strata.

It will be observed that the analyses of the blower-gas report no ethane content, although the analyst mentions indications of hydrogen. In previous analytical work on the many mine-air and gas samples collected by the Inspectors of British Columbia in the Crowsnest mines, no hydrocarbon gas other than methane has been reported.*

The contrast with results from fine grinding are most striking; the amount of hydrocarbon gases reported by Mr. Fieldner figured to volumes of gas to volume of coal (assuming for approximate figures a specific gravity of coal of 1.3) is shown in the tables on pages 335, 336, 337.

Investigators in the past have either not crushed the coal to a finely divided state, or have only ground it to pass through 10 or at most 30 mesh. Whereas, in these tests, Mr. Fieldner ground the coal to pass through a 200-mesh sieve. He comments that it is evident that ethane and higher hydrocarbons are not given off by the coal as readily as methane. For instance, a sample of Nanaimo coal, ¼ to ½ inch in size, sealed in a vacuum bulb for ten days, gave off much more methane than ethane, while another sample of the same coal gave off, on grinding to 200 mesh, more ethane and propane than methane.

The wide diversity of volumes given off by different coals is surprising, and this diversity occurs in the same mine as shown by samples from the Reserve mine. To some extent the latter may be due to the method of sampling in the mine and the preliminary treatment and variation in grinding. It is noticeable, in comparing results of samples from the same mine, that the ratios of the different gases is of the same order. Unfortunately, the method was not developed in time to try out the various samples of coal from the Coal Creek mine; one sample, No. 16, from Coal Creek No. 3 mine was tried, and the results caused surprise, especially after testing similarly a sample from the experimental mine. This proved to give off very little gas. As regards the latter sample, the experimental-mine workings are so near the outcrop and under such shallow cover that different results might be obtained than with a sample from the Pittsburgh bed in a deeper mine. Nevertheless, the dust from the experiment-mine coal proved to be more sensitive to the propagation of an explosion than the Coal Creek and Nanaimo dusts.

The diversity in results and the unusual amounts of hydrocarbon gases given off by the Coal Creek coal points to the advisability of continuance of these laboratory investigations on samples gathered systematically from all the Crowsnest mines and other typical mines in British Columbia. It is probable that investigations of a similar nature will be made by the Bureau of Mines on coals from various parts of the United States as opportunity presents.

In the Crowsnest collieries the question of whether ethane is given off under special conditions should be studied. In gas analyses by the ordinary combustion method ethane in small quantities is not detected, and, as usually the samples of mine-air collected contain only a few per cent. of gas, ethane would go undetected, being classed as methane. Hence, not finding it hitherto should not be considered as positive evidence of its not being given off. Under the great pressure of the heavy covering, the Crowsnest coal in the process of mining is subjected to a squeezing action, which tends to crush and grind the particles of coal one against the other. This may produce a condition which laboratory grinding would be analogous to. How occluded or contained gas is held in the coal substance is an unsettled question; that is to say, is the coal substance so impervious that the gas is held in minute pores like little bottles, only to be released when these are broken, or is it held by chemical bonds, so unstable that on a slight relief of pressure the gas is given off? It is stated by physicists that external pressure which obtains even with coals at great depth is insufficient at normal temperatures to liquefy the gases.

On the other hand, the surface tension of the coal-particles is very great, and some physicists have contended that films of the gas are held on the surface of the particles of coal under such tension that the gas is in compressed state equivalent to liquefaction. If so, when the coal-bed is opened, the coal near the headings and rooms may begin to release its contained gas. In the

* It is claimed that "in 1910 Professor John Cadman found ethane in the air of the Bellevue mines of Alberta." Page 723, Transactions of the Institution of Mining Engineers (Great Britain), Vol. LI. Ethane and other hydrocarbon gases except methane have never been found in the mine-air in mines of the United States unless by leakage from deep natural-gas wells.

Crowsnest mines large volumes of gas are given off at the faces. Such gas may have been stored in the crevices and open joints, and also in part may be occluded gas.

Normally, coal of the Cretaceous, which is the geologic age of the Crowsnest beds, is "sub-bituminous" coal, which is sometimes called black lignite. But Crowsnest coals have been advanced to the bituminous and semi-bituminous stage by heat and pressure in the Rocky Mountain uplifting, expelling from the coal substance moisture and gas. The latter, when it is held in by impervious or nearly impervious covering, collects in or saturates the coal-beds and enclosing strata.

The amount of gas given off by the freshly broken coal in the mines of the Crowsnest coalfield is very great, far greater than in most coals. It was observed in certain gaseous parts of the Coal Creek mines that, if a safety-lamp was set in a depression in a freshly broken-down pile of coal, the gas from the coal would flame in the lamp and extinguish the light. On the other hand, as will be shown later, even if two volumes of gas are given off per unit of coal volume, the amount is not nearly sufficient to account for the gas carried out by the return air-currents in the Crowsnest coal-mines.

As already indicated, methane and possibly ethane is given off in coal-mines in two ways:—

First, from the volume stored at high pressure in the crevices, slips, and joint-planes of the coal and adjacent strata, also from the cavities, if any exist.

Second, to a less extent from the coal broken down by mining operations, which gives off more or less slowly gases stored in its pores. The Crowsnest coal-mines have the unenviable position of being among the most gaseous mines in the world, according to the figures obtained through mine-air sampling by the British Columbia Mining Department. These figures are obtained from Thomas Graham's paper on "Some Gaseous Mines in the Crow's Nest Pass Coal Field" (referred to previously), and also from later records of the Department.

Gas-flow, Michel Colliery.—The records show that from Michel No. 3 East mine there is discharged in the ventilating-current on working-days from 1,104 to 1,524 cubic feet per minute of pure methane (at atmospheric pressure), which for twenty-four hours makes a total of from 1,590,000 to 2,195,000 cubic feet. On the basis of the coal mined (average per day for the period), 500 to 550 tons respectively, there was discharged 3,179 and 3,990 cubic feet of pure methane per ton of coal produced.

It is noticeable that on idle days the flow decreases; for example, on September 26th, 1916, this mine had lain idle since August 7th, when an explosion had occurred, and the flow of pure methane was 929 cubic feet per minute, or a total of 1,337,760 cubic feet per twenty-four hours. The question arises, is the decrease of flow due to the headings and rooms not penetrating into new areas, or is it due to fresh coal not being broken in daily work?

As the Pittsburgh laboratory tests indicate that even in vacuo but 2.1 volumes of methane plus ethane are given off on fine grinding, this figure may be considered an extreme one. Five hundred and fifty tons, a day's output at that time of the mine, occupies about 13,750 cubic feet in-place, and if it gives off 2.1 volumes of hydrocarbon gases, the total of the gases for twenty-four hours would be 28,875 cubic feet, or but 1.3 per cent. by volume of the gas given off on an idle day. On the other hand, the flow on an idle day after standing fifty days was 60 per cent. of the maximum outflow of a working-day. Similar results, differing slightly in proportions, are found in other Crowsnest mines. Accordingly, one is forced to conclude that the larger part of the gas entering the mines comes from that stored in crevices, slips, joints, and bedding-planes; second, a considerable part comes from exposure of fresh coal-faces and fresh roof areas; and, third, a small amount from the breaking-up of the pieces of coal in mining operations. In any case, it would appear that headings driven well in advance serve a valuable purpose in drawing off stored gases.

In the Michel Old No. 3 mine the methane-flow per minute ranged in the period from April, 1915, to October 24th, 1916, from 124 cubic feet on an idle day to 1,574 cubic feet on a day of active production of coal and correspondingly of uncovering of new faces.

This mine appears to be more gaseous per ton of coal produced, the figures ranging from 5,000 to 8,000 cubic feet per ton of production, but it is believed that this method of comparison is misleading. It is probable the territory mined is more gaseous.

The weight of the gas itself removed or flowing from the strata is worthy of attention. In the two mines just referred to, which are adjacent, the average weight in tons of pure methane carried out daily by the ventilating-current was 71 tons (of 2,000 lb.), which for a whole year

would amount to 26,000 tons. When it is considered what a great pressure the coal-beds are subjected to, and the fact that they are so much fissured as to be very weak when unconfined, it is a question if the loss of gaseous material may not cause some actual subsidence of the strata in the immediate vicinity of the mines of small vertical dimension, but nevertheless it may be a slight factor in a local subsidence over and adjacent to the mine-workings.

The Michel mine on the North side has shallow cover, and hence the amount of methane given off is relatively small—20 to 40 cubic feet per minute.

Gas-flow from Coal Creek Collieries.—The Coal Creek mines working on the South side of the creek are more extensive than the Michel mines. In No. 1 East mine, on February 23rd, 1916, when the mine was idle, there was 1,247 cubic feet per minute of methane given off; and on April 14th, 1916, when the mine was working, 2,906 cubic feet was discharged. This quantity represents the maximum discharge from any of the mines according to the records secured. At this rate there was thrown out of the mine in twenty-four hours, 4,184,600 cubic feet of methane, which would weigh 78 tons (of 2,000 lb.). On the basis of the cubic feet of methane per ton of coal mined, the figures 2,789 cubic feet give a much smaller ratio than that found at the Michel mines. The production of coal was then about 1,500 tons. Evidently from this the greater part of the flow comes from the coal stratum rather than liberated from the breaking-down of the coal in mining.

In the other mine working in No. 1 bed on the South side of Coal Creek, No. 1 South, the discharge of methane per minute in the "main return" ranged from 218 cubic feet per minute on an idle day to 459 cubic feet on a working-day.

The No. 2 bed lies below the No. 1 bed from 20 to 40 feet in the western part worked by No. 2 mine, under No. 1 South, but the interval between the beds increases to 150 feet where No. 3 mine works under No. 1 East.

The No. 2 mine main return also carries the gas-drainage from the abandoned part of No. 2, in which the "bump" area was located. The main return of No. 2 carried on an idle day 140 cubic feet of methane and on a working-day 250 cubic feet. The No. 3 mine main return carried on an idle day 381 cubic feet of methane and on a working-day 947 cubic feet.

The records of the methane given off by the respective beds may be summarized as follows, representing the minimum discharge recorded for an idle day and the maximum recorded for a working-day:—

No. 1 Bed (Upper).	Idle Day, Minimum recorded, Cu. Ft. per Minute.	Working-day, Maximum recorded, Cu. Ft. per Minute.	Tonnage of Coal produced, Average per Day.	Acreage covered by Mine.
No. 1 East	1,869	2,906	1,500	198.0
No. 1 South	218	459	400	....
Totals	2,087	3,365	1,900	....
No. 2 Bed (Lower).				
No. 3 mine	381	947	250	....
No. 2 mine	140	250	300	....
Totals	521	1,197	550	402.7
Grand totals	2,608	4,562	2,450	....

On the basis of the total methane discharged, the upper bed appears to be more gaseous than the lower bed; but in view of the fact that over three times as much volume of coal is taken out from the upper bed as from the lower, it is probable there is not much difference in the amount of total free gas in a unit of area in the respective beds.

Gas Conditions in Hosmer Colliery.—The Hosmer mines, situated on the west escarpment about six miles north of Coal Creek in an air-line, were closed and these mines were not visited.

According to the Government report of 1912, entitled "Investigation of Coals of Canada," thirteen seams were being opened at Hosmer from 4 to 30 feet in thickness. The opening tunnel,

900 feet long, had cut ten seams, five of which were being developed and which had a total working thickness of 40 feet, the sections being given as follows:—

No. 2 seam, 10 feet.
„ 6 „ 6 „
„ 9 „ 5 „
„ 10 „ 20 „

The seams varied from a dip of 65 degrees to 25 degrees. The tunnels started in the Fernie shales underlying the coal-measures, reaching the latter at a distance in of 850 feet and terminating in a hard conglomerate overlying the coal-measures, and therefore the seams cut included the whole series. It appears that very troubled or faulted areas were encountered which led to the shutting-up of the new mine a few years ago. The colliery is said to have been gaseous, but outbursts were not reported.

Outbursts of Gas in Carbonado Colliery.—The Carbonado mines were opened by the Crow's Nest Pass Coal Company in 1901-2 on the western escarpment of the plateau at a point on Morrissey creek about seven miles in an air-line south of Coal Creek. According to W. F. Robertson, on the "Rocky Mountain Coal Field," published in the Annual Report of the Minister of Mines for 1909, entries driven in on the strata of the beds show these thicknesses:—

No. 1, 12 feet.
„ 2, 30 „
„ 3, 4½ „
„ 4, 16 „
„ 5, 18 „

He states that the other beds were known to be above and below these, but not developed. The coal was found to be very friable, and on account of the high percentage of fixed carbon it would not coke properly in bee-hive ovens and was too small in size for locomotive use. In 1903 there were great outbursts of gas, causing loss of life, so that the mines were closed, but were reopened in 1907; but as the gas-outbursts continued to occur the colliery was again shut down in 1909. The locality was not readily accessible on account of snow and a visit was not attempted.

In 1903, when the main entries of No. 1 mine had been driven 2,000 feet from the outcrop, a great outburst of gas occurred, in which 1,456 tons of coal was blown out of the face of the main entry, making a tunnel cavity 110 feet beyond the original face. Other lesser outbursts occurred, and in 1904 there was another great outburst in which fourteen men were killed, the coal thrown out filling the level for 400 feet according to Inspectors Dick and Morgan. The mine foreman "reported everything clear and quiet at face twenty minutes before the outburst."

Thomas Graham states: "The displacement of coal in this outburst was estimated by the management as 3,500 tons. The volume of gas given off in the first thirty minutes after the outburst was estimated by various authorities at from 2,000,000 to 5,000,000 cubic feet."

Outbursts of Gas in other Mines of the Crowsnest Field.—No such great instantaneous outbursts have occurred in mines other than the Carbonado mines, but lesser, slower outbursts have taken place in the Coal Creek mines. In the No. 2 South, 900 feet inby the main parting near a faulty and crushed zone, an outburst took place several years ago, which pushed in 750 tons of coal. It gave premonitory symptoms, so no one was lost, but for two days no one could enter the place on account of the gas and broken coal. Similar but smaller "rushes" of gas and coal have occurred in the Coal Creek mines, and frequently miners are driven from the face of the workings, as occurred during the visits of the author, by the gas and breaking coal-face.

In some virgin areas, when the entry is advancing by employment of three shifts, it has been found necessary to slow the advance on account of gas given off, by cutting out one or two of the shifts.

When the "bumps" occurred in Coal Creek No. 2 mine in 1907-8 they were accompanied by strong inflows of methane which smothered the men entrapped by the uplifting of the "bottom" or floor. Hence it was believed by some that gas-pressure might have been responsible for the "bumps." But this view had to be abandoned when the great bumps in the No. 1 East mine occurred last November, as no gas was given off when these occurred.

Outbursts of Gas of Various Kinds.

Gases of different kinds are found in the earth's crust in many places, collected in porous strata, and in denser strata in cavities and rock joint planes when confined by impervious strata

above. The most common gases thus confined are: "Natural gas" (hydrocarbon gas), which is usually associated or in contiguous territory with petroleum, and is found in various sedimentary beds generally adjacent to thick shale-beds; "methane" (CH_4), commonly found in coal-measures; carbon dioxide (CO_2); and nitrogen, sometimes found adjacent to deeply buried limestone and occasionally in shattered eruptive rocks, as at Cripple Creek, Colorado.

Great outbursts of carbon dioxide have occurred in the coal-mines in certain small coal-basins of Central France adjacent to ancient crystalline rocks, throwing out thousands of tons of coal and causing loss of life, but outbursts of this gas (CO_2) are not known in the principal coalfields of the world.

Inbursts of natural gas into mines have occurred in Pennsylvania, West Virginia, and Illinois mines, where the measures containing such gas have underlain the coal-measures; but, although the gas-pressures are sometimes above 1,000 lb. per square inch, violent outbursts have not been reported since the distances between the gas-measures and coal-measures have been too great.

Outbursts of Methane.

Methane-outbursts into coal-mines have not been uncommon in many coalfields besides the Crowsnest field. Such outbursts have occurred only when the coal-bed being mined is deeply covered to a depth of over 1,000 feet or more by strata containing impervious shales. Methane found in coal-measures is generally believed to have been derived from partial distillation of the bituminous matter in the coal-seams and bituminous shales, in the natural process of coal formation by chemical reactions aided by heat and pressure from deep burying and mountain upbuilding.

It is therefore believed that all coal-beds have produced large amounts of hydrocarbon gases, but where the beds are thinly covered or are covered only by pervious rocks like sandstone, or the cover is much broken by fault-planes extending to the surface, the gas has escaped. Generally, the more deeply buried the coal-beds, the farther advanced from the lignitic stage; the larger the volumes of the residual gas, methane, contained in the strata, and also the greater the pressure under which the gases are confined. In Great Britain, in deep boreholes from the surface to the coal-beds, the pressure of gas attained 500 lb. and at Belgian mines 657 lb. per square inch. (*See* United States Bureau of Mines Bulletin 72.) Nevertheless, it is commented by Belgian investigators that the highest pressures are not found in the coal areas subject to outbursts, but rather in the denser coals.

Great outbursts of methane (chiefly) have occurred in the deep Belgian mines, in one of which many years ago the ventilating-current was reversed and about 140 men smothered, the gas taking fire at the surface and burning for a day or two. Several hundred other outbursts have occurred in Belgian mines, causing many deaths of miners. Such outbursts have been accompanied by the dislodgment of quantities of coal blown out in large part as dust. It has been found that these outbursts occur in crumpled zones and at buried anticlines.

Outbursts of methane of lesser magnitude have occurred in the coal-mines of other European countries than Belgium—i.e., in Great Britain, especially in Yorkshire collieries and Scotch mines—causing fatalities. Small outbursts have also occurred in coal mines of the United States, in the anthracite district of Pennsylvania and in Colorado.

The great outbursts of methane that ocurred in the years 1903 and 1904 in the Morrissey mines in the Crowsnest coalfield, and on reopening the mines in 1909, when the mines were again closed, have been unparalleled except by the Belgian outbursts.

Pressure of Gas in Coal Creek Mines.

On account of the apparent great force indicated by the outbursts at the mines at Morrissey and the pushing-out of the coal-faces at times in the Coal Creek mines, it was believed that the gas-pressure in the coal-bed must be very high. To determine what the pressures were, three sets of boreholes, three holes 10 to 14 feet apart in each set, were drilled into the solid coal of advance places near the face on the lower rib. The holes in each case were 8, 16, and 24 feet deep respectively. Three-eighth-inch pipes were set in each hole and allowed to project about ½ foot from the hole. The inner 1, 2, and 3 feet of each pipe respectively for the 8-, 16-, and 24-foot holes were perforated, and outby this each had a collar; burlap dipped in cement grouting was forced back against each collar to serve as stemming material; then cement and sand grouting was poured into each hole, the holes being pitched downward 1 in 24, until the grouting

nearly filled the hole; then cement mortar was used to finish filling. After the cement had set a pressure-gauge and a valve was screwed on to the end of the pipe.

In all cases gas blew freely out of the pipe, but the pressures obtained on shutting the valves were surprisingly low. When each valve was shut about a day after beginning the respective hole, the maximum pressure was quickly obtained, and thereafter there was practically no change. The maximum pressures and the temperatures of the mine-air and in the bottom of the boreholes were read by Mr. Michell, and are summarized in the following table:—

	Borehole Depths.			Temperature Fahr.	
	8 Ft.	16 Ft.	24 Ft.	Bottom 24' Hole.	Mine-air.
	Lb.	Lb.	Lb.	Degrees.	Degrees.
No. 1 East mine—					
18 room, 10 East entry (in solid coal on lower rib).....	3	0.5	13.5	46	40
22 room, 10 East entry (in solid coal on lower rib).....	0.5	7	18	50	48
No. 3 mine—					
Counter to Main level (in solid coal on lower rib).....	1.5	2	2	65	60

It is difficult to account for the erratic showing, but owing to the great friability of the coals it seems probable that there is a rapid escape of gas as the mine-face advances. With such conflicting results it would not be wise to draw conclusions from the above tests. It would seem advisable to drill and case some holes considerably deeper, say 100 feet in advance, and thus obtain records of the fall of pressure with the advance of the face, which would permit curves of this fall to be drawn, and in this way help determine how a given area of coal-bed may be drained of gas with lessened danger to the men.

One method of protecting men from outbursts is to keep boreholes in advance. This is the method practised in many mining districts of the world, but hitherto it has been argued that it would not permit the advance discovery of a stored pocket of gas such as was encountered by the Carbonado mines. The author of this paper is not convinced by these arguments, but it is his judgment that if a sufficient number of boreholes be drilled, spreading fan-shaped from the main advance entries, these would approach near enough to such a pocket of gas and crushed coal to show by the gas-flow from the pipe that there was a dangerous area ahead, and until it had been drained by other boreholes the entry or room driving should cease.

Temperature in Boreholes.

The temperature in the bottoms of the 24-foot boreholes is also most surprising. Apparently the only way that the low temperatures in the boreholes in No. 1 East mine can be accounted for is by the assumption that it was from the expansion of the stored gases as they are released at or near the face. This matter also needs further investigation in connection with drilling deeper boreholes and obtaining the readings when the casings were capped, so expansion does not take place into the borehole lining.

Question of Gas-flow and Outbursts.

The matter of gas-flows and outbursts, while not so immediately acute in the operation of the Coal Creek mines as that of "bumps," yet is a most serious and, in fact, vital consideration in planning for future operations in these and other mines of the Crowsnest coalfield. Even in the question of lessening the danger of "bumps," the number of airways that must be maintained to meet the gas-flows affects the system of mining which may be adopted.

Mining Conditions and Methods in the Coal Creek Mines in relation to the "Bumps."

The No. 2 seam at Coal Creek was opened first and mined extensively by the Old No. 2 mine and No. 3 on the South side of the creek. The coal varied in thickness from 4½ feet on the dip or East side of No. 3 mine to 11 feet as taken out on the West side of No. 2 South. On the West side there is a crumpled zone in which the coal in places is 20 feet or more thick, but crushed and dirty. Through the area in the inner central portion of No. 2 mine, later affected by "bumps," and now closed off, the coal is said to have been 4½ to 5 feet thick.

The general method of mining in the Nos. 2 and 3 mines was by the pillar-and-stall system, the "stalls" or "rooms" being driven off water-levels which branch from inclines. The entries were 12 feet wide and the rooms from 16 to 20 feet wide and about 40 feet apart, the pillars thus being 40 feet wide and about 60 feet long between crosscuts. The workings and the pillars were very irregular.

In some places long-wall was started in irregular panels; in other places the pillars were withdrawn. In the "bump" area, as indicated in the attached blue-print, 50 to 60 per cent. of the coal had been mined out; this correspondingly increased the load on the pillars, which bore the weight of 2,000 feet of cover.

The roof of No. 2 mine is a fairly strong shale, but the floor is a softer shale.

I will not attempt to describe individual "bumps," which first became serious in 1906. On the mine-map, Exhibit 5, where there are eight circles enclosing letters from A to H, fatalities occurred, as the result of "bumps" in the immediate vicinity. The last, on July 31st, 1908, was the most serious. Mr. Robertson reported that "twenty-four men were cut off and all would have been suffocated had it not been for a supply of fresh air supplied by a break in the compressed-air pipes, enabling twenty men to be saved."

Mr. Robertson further states in his Annual Report for the year 1908 that:—

"A reference to this plan (of the No. 2 mine) will show that the area of disturbance in which all these 'bumps' have occurred is between the main entry and the High Line entry and immediately surrounding and including the area from which the pillars have been extracted, an area of about 1,500 by 1,000 feet, and this area stretches across from one entry to the other. These facts would indicate that the sagging of the roof over the area from which the pillars had been extracted caused an undue pressure on the immediately surrounding pillars, which, transmitted to the pavement, apparently caused it to burst upwards with the liberation of gas and accompanying shock. There was apparently no serious caving of overlying measures that might fill up the space and relieve the pressure. The area of pillar-extraction—some 30 to 35 acres—is located in the centre of the mine-workings and under an overburden of 2,000 feet. In this present case the disturbances have, so far at least, been localized; whether they will spread to the rest of the workings time only will show.

"I think that there will be no sudden outburst, provided no further attempts are made to extract pillars from a central area which has stood for some time. If the extraction of pillars had been commenced within a reasonable time and from the outcrop, the roof might probably have subsided behind such workings quietly and no serious disturbances have taken place."

Mr. Robertson's prediction relative to there being no further sudden "outburst" or "bump" in No. 2 mine proved to be correct. In accordance with his recommendations, the operating company was "prohibited from continuing any of the present workings of that part of No. 2 mine lying between the main entry and the High Line entry inside of No. 1 West level main entry, and No. 1 East level, High Line, or of extracting pillars within this area in this mine, such prohibition to include the main entry and parallels inside of No. 1 West level."

As regards Mr. Robertson's opinion "that if the extraction of the pillars had commenced at the outcrop the roof might probably have subsided behind such workings quietly" seems to be supported by what happened on the north side of Coal Creek.

After the No. 1 bed had been mined by No. 1 North and many pillars extracted and some long-wall operations conducted near the outcrop, this was followed by working the No. 2 seam by opening No. 9 mine under the No. 1, with similar extraction by pillar-drawing and long-wall; although the workings were irregular and unsystematic, the fact that extraction began near the outcrop caused a shoulder of the mountain, to a height of 1,200 feet, to quietly subside at the outcrop, the mass hinging on the solid unmined area, cracks opening across the projecting shoulder 1,200 feet above. So little disturbance did this make that it was not realized what had happened until the cracks were noted. (*See* Exhibit, Photo "B" of "shoulder" over Mines No. 1 North and No. 9.)

MINING DEVELOPMENTS AFTER "BUMPS" OF 1908.

Following the shutting-up of the "bump" area in No. 2 South mine, the work in this seam was continued only in the east and west portions, called No. 3 mine and New No. 2 mine. In these developments large pillars were left between each pair of rooms 150 feet wide, and between the two rooms of a pair a 50-foot pillar was left. The No. 1 seam, 9 to 12 feet thick, lying above

the No. 2, was then developed over the west part of Old No. 2 mine by what is termed the "No. 1 South mine," and subsequently by the opening of No. 1 East mine, immediately over the central part of No. 2 mine.

Description of No. 1 East Mine.

The No. 1 East mine was the only mine systematically planned of the Coal Creek mines, and the advance plan was rigidly adhered to. The main entries run due south, which is approximately on the strike of the bed; the cross-entries, 10 feet wide, which on the west side are driven "to the rise" and on the east side "to the dip," are 600 feet apart, and in the inner part of the mine 1,000 feet apart; each one of the pair is 60 feet apart. Rooms only 14 feet wide are parallel with the main entry and are also in pairs. The two rooms are 60 feet apart and the pairs 150 feet apart. Crosscuts are between each of the two rooms, but the pairs are only connected when necessary for special reasons, so that ordinarily over the "bump" area between each pair of rooms there is a pillar 150 x 600 feet. Only 25 per cent. of the coal was taken out by this advance work, and no pillars were to be pulled until the mine was retreating as a whole. (*See* Exhibit 4, map of mine.)

The coal is from 10 to 12 feet thick, to a slickensided rash 2 to 3 feet thick, which had no strength and was kept up by lagging and close timbering to prevent mixing with the coal in loading. The cross-timbering under the mine regulations does not have to be closer than 1 yard apart, but the miners who were paid $1 per set, usually preferred to place two sets to a yard. Above the rash is 2 to 3 feet of coal, usually of excellent quality; this is not obtained in this advancing work. Over the coal there is a strong sandy shale approaching a sandstone in places. Fifty feet above the coal-seam there is said to be a strong conglomerate 15 to 20 feet thick. There are also other beds of conglomerate higher in the section. Owing to the deep snow on the mountain-sides, the rock-exposures were not visible, except at the tops of the ridges.

The No. 1 East mine rapidly developed; the mining conditions were good, except the immediate top, consisting of the rash and soft coal, weighted heavily on the timbers, and after a time they had to be removed or else the false top allowed to fall, and timbering carried up to the main roof.

No explosives were used in mining, but the coal, assisted by the gas-pressure, worked off easily, and a miner could load 7 to 8 tons per day of "eight hours from bank to bank," which meant about seven hours at the face. The output of the mine attained 1,500 tons per day. The mine passed over the "bump" area of No. 2 mine, which is about 150 feet below it, without noticeable effect, and by November, 1916, the rooms to the east of the main entries were 300 to 400 feet beyond the (projected upward) edge of the abandoned No. 2 mine, and the main entries about 700 feet beyond the edge (projected upward) of the general line of faces of Old No. 2 mine, or about 5,000 feet from the entrance portal.

"Bumps" in No. 1 East Mine, November, 1916.

November 7th, 1916, at 9.55 p.m., there was a "bump" affecting Nos. 8 and 9 rooms off the No. 14 East, resulting in a fall of loose rock which occurred in No. 8 room, hemming in a horse. A small fall occurred in No. 9 room, injuring a man. A party of ten men and two firebosses went to work in No. 8 room to clean up the falls to release the horse, but a more severe "bump" occurred at 1.55 a.m., causing two heavy falls in No. 8 room, burying and killing one man and hemming in eleven others. By 4 a.m. they had worked their way out through a crosscut into No. 7 room, thence out. At 5.25 a.m., November 8th, the third and heaviest "bump" occurred, which not only shook the inner part of the mine, but created earth-tremors which were felt for many miles, strongly at Fernie, and in many places a number of miles to the north and south.

Falls of false top were general inby the No. 14 East and West. Those in the main entry blocked the ventilating-current of 120,000 cubic feet per minute; the intaking air-column, being 4,000 feet in length, acted like a water-hammer; the pressure ran up, bursting the wood stoppings, and causing a reversal of the current in such strength that several men, one of them the general manager, Mr. Wilson, were hurled outby before it, sticks and stones being carried along.

There were many narrow escapes of those in the mine working to clean up the previous falls, but all escaped, though several were battered up. While hundreds of falls had occurred, practically all that could be observed were of the rash and top coal only. Apparently the main roof had stood the shocks.

A fourth but lesser "bump" occurred over the main entry on November 13th, causing the bottom to heave in the centre 2 feet, and for a distance of 200 feet opposite the No. 12 West and outby same for 120 feet. This was the only "bump" which caused the floor to lift. Since the fourth "bump" there have been roof knocks, rather than "bumps," at more or less frequent intervals, causing no damage. Neither the large nor the subsequent small "bumps" were accompanied by outbursts of gas, unlike the "bump" in No. 2 mine.

Mr. Graham, Chief Inspector of the Province, following the occurrence of the "bumps," decided to prohibit, pending investigation and further orders, work in a certain section inby the No. 10 East and West entries overlapping, but exceeding in area the prohibited district in Old No. 2 mine.

THEORY REGARDING "BUMPS."

As already implied, "bumps" are manifestations of pressure, and occur only when the mines are at great depth, usually exceeding 1,000 feet. If the measures overlying the mine are soft and pliable, such as shale-beds, "bumps" will not occur, although "mine squeezes" may take place. "Bumps" therefore occur only when there are massive and rigid beds above, such as sandstone, conglomerate, and limestone. Mine squeezes originate where the pressure thrown on the mine pillars is sufficient to crush them, or the immediately overlying roof or underlying floor is too weak to withstand the load put on it, through removal of part of the natural support by the excavations, but such squeezes will only result in "bumps," as stated above, when there are rigid rocks of great thickness above.

The cause of "bumps" is thought by the writer to be this: When an area in a coal-bed has been mined out or when a "squeeze" has occurred from the weight of the lower-lying roof, so that a subsidence or separation of the lower stratum from under the rigid rocks has occurred, then the massive rock will span the subsidence. If the diameter of this subsided area is limited —that is, let us say, 50 to 100 feet—a strong sandstone or limestone stratum would easily be self-supporting; but if the subsidence of the lower measures (though only a foot or two in vertical displacement) was 200, 300, or a 1,000 feet in diameter, so that the underside of the massive rock was not supported over this space, then it is probable that the lower layers of such a rock would not stand the strain, and a large disk-shaped piece would drop, 1, 2, or 3 feet, as the case might be, giving a blow of tremendous force which would produce the effect called a "bump," and the larger and heavier the slab the greater would be the "bump." Above such a great fallen slab there would in all probability be almost the same depth of space as was represented by the subsidence, and there would be a flat, dome-like arch, supported at the sides of the unsubsided area.

If the subsidence of the lower measures continued through enlargement of the area of mining or of "squeeze," there would probably be a great saucer-like mass of larger diameter than the previous great slab fall upon it, causing a second "bump." In time, further saucer-like masses would drop, increasing the height of the dome until it either reached the surface or reached a soft stratum which would bend. The foregoing assumes a massive stratum without joint-planes or fault-planes which would modify the character and size of the falling masses, each of which strike a great blow, and which is believed is the cause of the successive "bumps" in Coal Creek Nos. 1 and 2 mines.

In the foregoing it is assumed that the coal strata is not dipping at sufficient angle to cause slipping of the strata on the bedding-planes. Steeply dipping strata would necessarily act very differently in the movement of the mass which gives the blow. When the overlying strata is in the form of mountains with steep slopes and with great slips or fault-planes developed, the character of the rock-movements would be profoundly altered; but in any case it is believed that when thousands or hundreds of thousands or even millions of tons of rock fall only a few inches, a gigantic sledge-hammer blow is given to the mine-roof, setting up vibratory waves like the earth-tremors which are called earthquakes. The direct blow on the mine-roof may break timbers and throw down great amounts of soft roof material, cause slabbing of all the coal, or, where the coal is strong and the bottom of the floor weak, cause a sudden uplifting of the floor. The latter effect was the chief manifestation of the "bumps" which occurred in No. 2 mine from 1906 to 1908, whereas in the recent "bumps" in the upper bed of No. 1 mine the chief manifestation was through the breaking of timber and release of the soft "rash" and coal above it. The immediate roof in some cases may be permanently lowered by such a hammer-like blow, and in the recent

"bumps" in No. 1 mine there were indications from the timbering that in places the immediate roof had been smashed down 3 or 4 inches.

The great danger to the workmen is in being buried by the loose material, which in the case of No. 1 mine lies above the usual timbering, or from the sudden thrusting-up of the floor against the roof or side, as was the manifestation in the No. 2 mine in the "bumps" of 1906-8. The slabbing of coal from the entry ribs is a contributory factor to the danger of the miners, and in the case of the "bumps" in No. 2 the giving of large amounts of gas was an additional danger.

Another secondary but dangerous condition for the men in the area affected was, in the greater No. 1 mine "bumps" recently, due to falls of roof which suddenly blocked the air-current, and this sudden arrest of a large column of air 4,000 lineal feet long, actuated by a pressure measured by several inches of water-gauge, caused the bursting-in of many wood ventilating stoppings at the head of the "main intaking" entry, and built up a momentary pressure which hurled the men in its path in reverse direction to the former current.

Occurrence of "Bumps" in other Mining Districts.

"Bumps" are known in other coal-mining districts of the world. They have been a serious menace in a certain South Staffordshire coal-mine in Great Britain working the "10-yard seam" 24 to 30 feet thick. This mine is worked by a square chamber system, and, the pillars being very high, there is probably some crush and subsidence of the immediate roof, opening an equivalent space at some unknown distance above. The strong rocks higher up, which are no longer able to span such areas of subsidence, break and cause "bumps." In these mines, when strong "bumps" occur, the timber is broken down and the coal slabs off and accidents to miners are caused thereby. In the case of the South Staffordshire mines the coal and strata have low dips and the overlying surface is practically level, the depth of the workings being about 1,500 feet or more from the surface.

In the United States "bumps" are reported to have occurred in certain coal-mines of Utah, working under the Book Cliff mountain, where the depth of cover has been 2,000 feet or over.

There have also been occurrences of "bumps" in the Carbonado mines in the State of Washington leading to fatalities. These mines are working under the shoulder of the foot-hills of Mount Rainier, and where the total cover is over 2,000 feet. The measures dip from 50 to 60 degrees at the outcrop to 15 to 20 degrees in the lower workings. The coal is mined by the room-and-pillar method, the rooms going up the dip and the coal dropped down by chutes to the level below. As soon as the rooms have gone up the proper distance, the pillars are sliced off so that at the head of an entry or level there are several rooms being driven up and several rooms outby in which the pillars are being drawn.

The floor and the roof are both hard, and in this respect the conditions differ from those at Fernie. Formerly little attention was paid to driving the rooms straight, with the result that there were sometimes very large pillars, and again sometimes small ones. It is believed that in this case the larger pillar held up the immediate roof while drawing the adjacent pillars; but when the weight on the larger pillars became such that they would no longer withstand the load they would suddenly crush down a little bit, breaking timbers, slabbing off coal, and in this way men were caught by the timbers or the coal. To meet this the operating company are now laying off the pillars regularly, and during the recent months the mine had been free from any "bumps." Whether or not a final cure has been effected still remains to be seen.

The problem of the "bumps" in the Crowsnest field is not confined to the Coal Creek area alone, but, from the natural conditions surrounding the field, similar difficulties threaten in the future all extensive mining operations, as the mines get under deeper cover, unless some system of mining can be evolved that will prevent the "bumps" from occurring.

Proposed Lay-out for Future Workings to lessen Hazard of "Bumps."

Before leaving Fernie after investigation of the mining conditions, the writer had a conference with the following gentlemen: Mr. Wilson, General Manager; Mr. Robertson, Provincial Mineralogist; Mr. Graham, Chief Mine Inspector; Mr. Williams, Inspector of the Coal Creek District; and Mr. O'Brien, Inspector of the Michel District. After a discussion of the phenomena of "bumps" and the danger to employees and property therefrom, Mr. Wilson was requested to give his view as to what would be the best method of avoiding the dangers of "bumps." He presented the following general plan:—

To reopen the main entries through the temporarily prohibited area and drive them on until the selected boundary of the mine is reached, when retreat would begin; to also drive a pair of parallel rooms on either side for airways, making six advance entries and airways extending into the coalfield; off the main entry there would be turned at right angles side entries every 800 feet, and from these would be turned pairs of rooms, each room of the pair 60 feet apart centre to centre, and each pair of rooms to be 200 feet apart. The rooms to be driven 600 feet, thus leaving a barrier pillar of 200 feet between the ends of rooms off one pair of entries and the ends of rooms off the next pair of entries inby. Under this plan only one-eighth or a little over 12 per cent. of the coal would be extracted in advance. The idea expressed by Mr. Wilson was to take out enough coal to develop the ground and to partially pay for advancing the entries. (*See* dotted lines on map (Exhibit 4) and sketch (Exhibit 8).) When the boundary of the district to be worked from the mine was reached, then a retreating system of some sort would be employed. Meantime it would be necessary to very much enlarge the ventilating system so as to adequately take care of the increased flow of gas which might be expected in future.

The No. 2 mine (in the lower bed) was to be extended from the present main entries and two pairs of rooms on either side also extended for air-courses; these extensions to be parallel with the workings in No. 1 mine (off the upper bed). The No. 3 mine on the lower bed was to connect by cross-entries with the No. 2 mine, which lies to the west of No. 3. The No. 3 Main level and air-course would have six parallel rooms running approximately on water-level southward. There would, of course, have to be some local modifications of the various plans to fit the natural conditions.

The general scheme is shown on the map (Exhibit 4), which is a contour map of the coalfields, showing several Coal Creek mines on the south side superposed and the proposed extension working in dots. This proposed plan was drawn up subsequent to the conference and copies given to the writer and the Provincial authorities.

REVIEW OF EVIDENCE REGARDING CAUSES OF "BUMPS."

Before proceeding to a consideration of the means that may be taken to avoid or lessen the danger from "bumps," it seems advisable to summarize the evidence regarding them.

(1.) "Bumps" occurred in No. 2 mine in 1907-8 in a certain area, about 35 acres in extent, and over which there was about 2,000 to 2,500 feet of cover. These "bumps" were manifested in the sudden upheaval of ground at local points and the giving-off of large quantities of methane, which smothered the men entrapped by the upheaved bottom. At this time the bed above this (No. 1 bed) had not been opened in this vicinity.

(2.) In November, 1916, "bumps" occurred in No. 1 East mine in bed No. 1 in an area 150 feet vertically above No. 2 mine, almost directly above, but a little inby the bump area in the lower mine. (*See* Exhibits 4 and 5.) These "bumps" were manifested in the upper mine by the breaking of timbering and throwing-down of false top, rash, and roof coal, but without noticeable discharge of gas and without affecting the floor. As the No. 2 mine under the bump area was closed, effects could not be observed, but inspection of the boundary district surrounding the Old No. 2 mine disclosed only such slight and doubtful evidence of a few cracked timbers at a couple of points as to be negligible. Men in No. 3 mine heard the crash of the "bump," but were not injured and no falls occurred.

(3.) In No. 2 bed floor was the weakest part of the seam. From 50 to 60 per cent. of the coal had been mined out in the bump area in that bed, throwing a heavy load upon the pillars. In the upper bed the weakest portion of the stratum was the rash-band and loose roof-coal.

(4.) "Bumps" in coal mines are known in various coal-mining districts of the world, and are akin to air-blasts in metal-mines, which are of serious account in the deep mines of the Rand and in the Lake Superior copper-mines.

(5.) "Bumps" occur only where there are rigid massive rocks like conglomerates, limestone, and massive sandstone in the cover over a mine, and also occur only when the workings are at great depth—that is, 1,000 feet or more.

(6.) There is great danger to underground workers as well as serious danger to the mine itself from "bumps" of a magnitude like those which have occurred; that comparatively few men have been killed is a fortunate circumstance; because, for example, if the great "bump" of November 8th, 1916, which threw down the rash and roof coal through an area of 30 or 40

acres, had occurred during the day shift, several hundred men would have been exposed to the danger of being buried or smothered by the thick dust which filled the atmosphere.

(7.) The roof of No. 2 mine is strong, and it is reported that it was not affected by the "bumps" which occurred in 1907-8. In No. 1 mine the false top, with rash and roof coal, was weak, but the main roof is strong, and close observation, so far as the heavy falls permitted inspection after the great "bumps" of November, did not disclose any weakening of the main roof.

Conclusions from Evidence regarding "Bumps."

Your investigator believes:—

(*a.*) That "air-blasts" are the result of great areas of unsupported mine-roof or hanging-wall giving way suddenly, like an overloaded bridge, and thus causing a blast of air from the collapsed workings.

(*b.*) That "bumps" only occur when there is deep cover over the mine and where there has been a subsidence of the roof over an excavation or squeezed area; the rigid strata above has not flexed downward, but spans the sunken area. When the span, through continued mining and widespread subsidence, becomes too great for the rock stratum to bridge over, enormous masses may fall, and while the distance may be only a few feet or even a few inches, the sudden arrest of rock-masses weighing possibly thousands of tons will set up a shock-wave in the underlying stratum which gives the effect of a local earthquake.

(*c.*) That after one rigid stratum has given way in the interior of the measures there is opportunity for similar giving way of successively higher strata, but, it is thought, with less and less effect on the mine-workings as the spaces become more or less filled with broken rock and the blow cushioned, also as the vertical distance above the workings becomes greater with each successive fall.

(*d.*) It is believed that had the massive rock cover been frequently broken in mining No. 2 mine from the outcrop, which usually takes place in mining, by the long-wall advancing method, "bumps" would not have occurred. One piece of supporting evidence for this belief is that on the North side, where such long-wall work is done, the cover was broken over the mine for a height of 1,200 feet vertically without causing any "bump" effects.

(*e.*) It is also believed that, using the pillar-and-stall or pillar-and-room method, had the advance mining been as systematic as at present and not taken out to exceed 25 per cent. of the coal, the weight thrown on the pillars would not have been great enough to cause their being crushed into the floor, and probably the "bumps" of 1907-8 would not have occurred.

(*f.*) It is believed that the condition of subsidence brought about in the "bump" area of No. 2 mine is directly responsible for the "bumps" affecting the No. 1 mine; in other words, had the No. 2 bed been unworked, the "bumps" would not have occurred from the method of mining carried on in the No. 1 mine. It was contended that there was no evidence of subsidence or settlement in driving the No. 1 entries and rooms. The writer's experience is that, with 150 feet intervening between the coal-beds and flexible strata, any previous movement in sinking several feet would not be discernible in the coal or shales.

(*g.*) That, had the rash and top coal of No. 1 East mine been taken down, there would have been little damage done to the mine by the "bumps" and comparatively little danger to the employees underground.

(*h.*) That, in going into undisturbed ground beyond the No. 2 mine subsided area, the danger of further "bumps" would be reduced to a minimum, provided at least 75 per cent., and preferably 80 per cent., of the coal is left intact and the pillars not withdrawn until the mine is retreating.

Future Remedy for "Bumps."

The plan now proposed by Mr. Wilson, General Manager of the Crow's Nest Coal Company, after conference with Messrs. Robertson, Graham, and the writer, as shown by the dotted lines in the attached plan (Exhibit 4), under which system less than 15 per cent. of the coal will be taken out in advance, is a satisfactory method; provided that for the protection of the employees in No. 1 mine the rash and roof coal is taken down to a point as near to the face as practicable, for it cannot be assured that lesser "bumps" from breaking and dropping of rocks higher up may not continue; but by taking this precaution it is not probable that when a "bump" occurs any one would be injured.

It has been contended that there are difficulties in taking down the rash and top coal on account of a mixture of impurity with the coal, which would in turn seriously damage the coke. It would seem that this could be done by mining out the roof-coal in advance, putting up necessary timbers to support the main roof; then taking out the rash and filling same in rooms farther back; after this, mining out the main coal and putting in longer posts to catch the collars put in while working out the top coal. (*See* sketches by author, Exhibits 6 and 7.) Your investigator recommends the trial of the system to determine if practical, and, if not, some other plan which gives the desired degree of safety may be developed.

An alternate plan, proposed by the operating company for room-work, is to first mine out the main coal in the rooms, and then drop the rash and top coal by pulling out the timbers. The objection to this is that until further advance, well beyond the present "bump" area, is made with immunity from "bumps," the majority of the miners would be exposed to burying or smothering if a great "bump" occurred. While, on the other hand, where the rash and roof had been taken down as shown wherever done in the main entry of No. 1 mine, no breakage of timber or falls had occurred.

REVIEW OF EVIDENCE REGARDING THE GAS AND OUTBURSTS OF SAME.

The problem of equal importance in working the Crowsnest field coals, and especially in future developments under deeper cover and greater distance from the outcrop, is to adequately take care of the large quantity of gas. Very wisely the mines are not allowed to equip with electricity for haulage or lighting, as the danger is too great.

The following are the chief facts developed:—

(1.) That the flow of gas as measured by the analyses of the returns and the outbursts of gas which occurred at the Morrissey collieries show that the Crowsnest Pass coalfield mines are among the most gaseous in the world.

(2.) That gas is derived from two sources: (*a*) Stored in the crevices and joint-planes of rocks and coal; (*b*) occluded, or that held in the pores or cells of the coal or by surface tension.

(3.) That an unusual condition has been found in testing the amount and kind of gas given off by the broken coal, which, on the basis of one sample, shows: (*a*) That an unusual quantity of hydrocarbon gas is given off by the coal on grinding fine in vacuo; (*b*) that three times as much ethane and other hydrocarbons are given off as methane under these conditions.

(4.) That the gas-pressures within a short distance of the face of the workings are low, which, however, is not proof that high gas-pressures may not exist at a considerable distance in the solid away from the face.

RECOMMENDATIONS REGARDING GAS-FLOWS.

(*a.*) That since the gas-pressures rapidly lessen from about 18 lb. 21 feet from the face to nothing at the face of the coal, it is indicative of the importance of draining the coal-measures by advance headings.

(*b.*) To prevent the danger of outbursts overwhelming the men, as at Morrissey, it seems very desirable in faulty ground or crushed zone that drill-holes be kept in advance of the main heading, and in such ground that they be advanced at only a moderate rate—say, perhaps only one shift per twenty-four hours—in order to permit the slow draining of the gas.

(*c.*) That in those portions of the field which permit advancing long-wall this system should be used from the outcrop. Long-wall would probably prevent "bumps" and would drain the gas more slowly and more safely than pillar-and-stall work. However, advancing long-wall is not practicable with the conditions found in No. 1 East and No. 1 South at the present time, though probably it might be applied in the No. 2 bed.

RECOMMENDATIONS FOR COMMISSION OF INVESTIGATION.

It has been implied in a number of places in this report that there are obscure matters which can only be cleared up by further investigations. The research-work on gases, the recording of phenomena, such as rock-tremors, "bumps," and outbursts, and the trial of methods of mining. The importance of most of these matters is obvious from statements in the report, but the inquiries may be summarized as follows:—

(1.) The making of careful topographic survey in the vicinity of all operating mines and the establishment of monuments in advance of mine-workings by precise methods of surveying, so

that all changes may be observed, together with the observation and measurement of surface cracks which may develop.

(2.) The establishment of seismographs registering vertical waves at two or preferably three points on the face of the mountain above No. 1 South. If possible, these seismographs to be so connected up electrically that the registrations will be made at some suitable convenient point in the vicinity of the mine-mouth. It is believed that comparatively simple seismographs would be suitable for the purpose of determining in what horizon or stratum of the rock any disturbances were taking place, with the ultimate hope that some means of warning might be given apart from the matter of scientific interest. It has been claimed (with what truth is not known) that seismographs are now being used on the battle-front in France to determine the location of the enemy's big guns.

(3.) The carrying-on of experimental methods of mining the coal at the face in a practical manner, especially in No. 1 bed, so as to lessen the danger in case of "bumps" or falls of rash and roof coal, and to look into the best method of timbering for protection.

(4.) In the matter of occluded gas, to gather samples in various beds, and in conjunction with laboratory testing to determine the amount of occluded gas in different coal-beds, how it is held, and if there is any chemical instability which might or might not be connected with any shrinkage of the coal in place in the pillars of the mine-workings. In this connection plugs or monuments in the roof, sides, ribs, and floor might be established at various points in the mine to determine whether or not movement or shrinkage is going on.

(5.) In the matter of protection from fire-damp, to continue the excellent investigations begun and carried on during the past two years by the Provincial Inspection Department of gathering samples of mine-air as to dangerous conditions in any part of the mine, and to obtain data on the drainage of the gases from the coal-bed, such work being planned with the special view to determine the relative amounts of gas given off in various localities, also when the mine is working and when it is idle.

(6.) To drill a number of long boreholes, say 100 feet or more, in advance of the working-faces to determine the amount of gas given off from a given exposure of surface of the borehole at the inner end, left unpacked, say 3, 4, or 10 feet, as the case might be; also to record the gas-pressure at regular intervals from the inner end of the hole to its mouth, and thus obtain a curve of fall of pressure from the interior of the unmined coal to the face of the mine. The practical object of this would be to determine the rate at which it would be wise to allow the entries to advance, and also to determine if the gas in dangerous areas, as in crumpled, crushed zones, could not be bled off by means of such boreholes, cased or otherwise, as in the very dangerous conditions found in the Carbonado mines at Morrissey. It is your investigator's opinion that the question of methane flow and pressure is going to be of an increasingly serious nature in all of the mines in the Crowsnest field as they penetrate farther under cover.

(7.) The greatest function of such a permanent commission would be to determine how the collieries may be so laid out under the difficult conditions which confront mining operations in the Crowsnest field that all the coal which is now considered as a "reserve" may be ultimately obtained. When it is recalled that it is practically impossible to sink shafts into the larger part of the field, and that, if the coal has to be attacked from the outcrop, to mine in the interior of the field will require entries or tunnels six, eight, or ten miles in length, the magnitude of the problem is apparent.

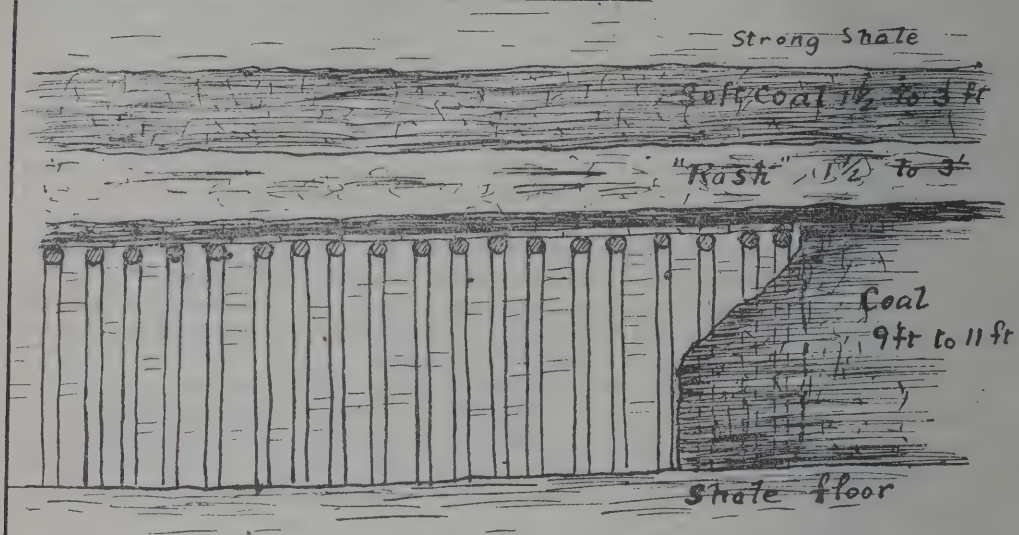
In conclusion, I cannot commend too highly the admirable attitude taken by the officials of your Province, the Provincial Mineralogist, Mr. Robertson, and the Chief Inspector of Mines, Mr. Graham, in regard to the problems which confront them. Their past action in safeguarding the miners and property by certain orders received my hearty approval. But in such problems as will confront them in future, in the matter of making the mines safe for the employees and in obtaining the highest yield from the coalfields under the very difficult natural conditions, it is important that they shall have the opportunity of conferring with and receiving the advice of a commission of ability, and which has members who can speak with authority on scientific and technical subjects. It therefore seems advisable to have on such a commission a geologist, a mining engineer, a chemist, and an experienced mine operator.

Respectfully submitted.

George S. Rice.

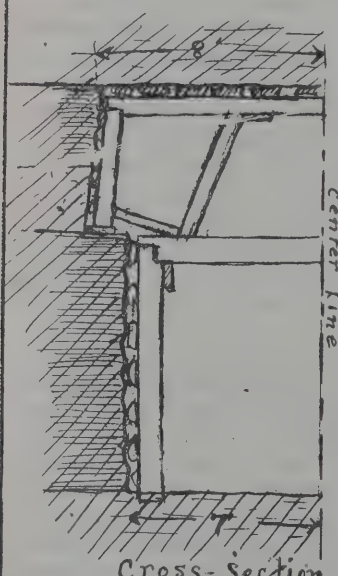
Washington, D.C., March 26th, 1917.

Exhibit N° E.

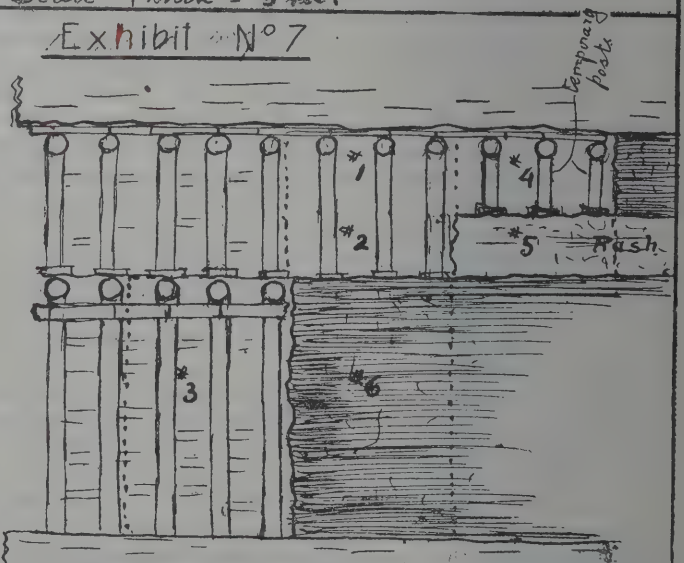


Section of No 1 Coal bed Coal Creek Colliery
and present method of mining and timbering in rooms
Scale 1 inch = 5 feet

Exhibit N° 7



Cross-Section



Method of mining proposed for trial by G. S. Rice
numbered blocks (dotted) order of extraction

"A." Showing Steep Dips at Western Escarpment in Upper Background. View looking North-west.

"B." Showing Shoulder of North Mountain-side which is cracked away 1,200 feet vertically above No. 9 Mine, Coal Creek.

"C." Looking North across Coal Creek Valley.

"D." Looking East up Coal Creek towards Plateau.

"E." Looking West down Coal Creek.

T 2

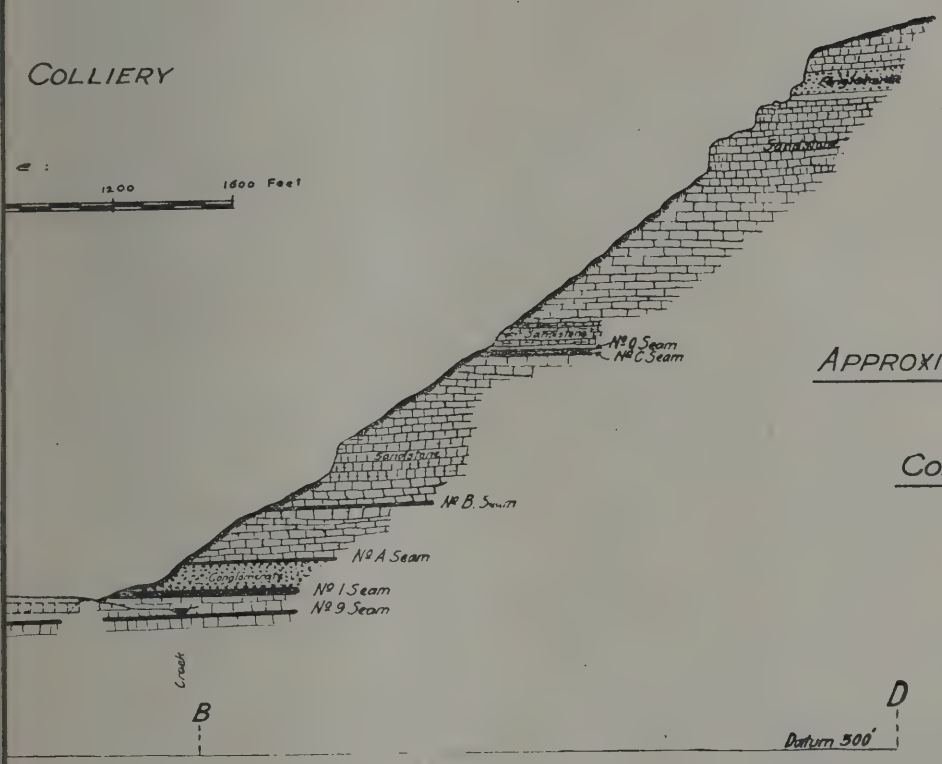
OF

LOGICAL FORMATION

COLLIERY

e :

1200 1600 Feet



APPROXIM

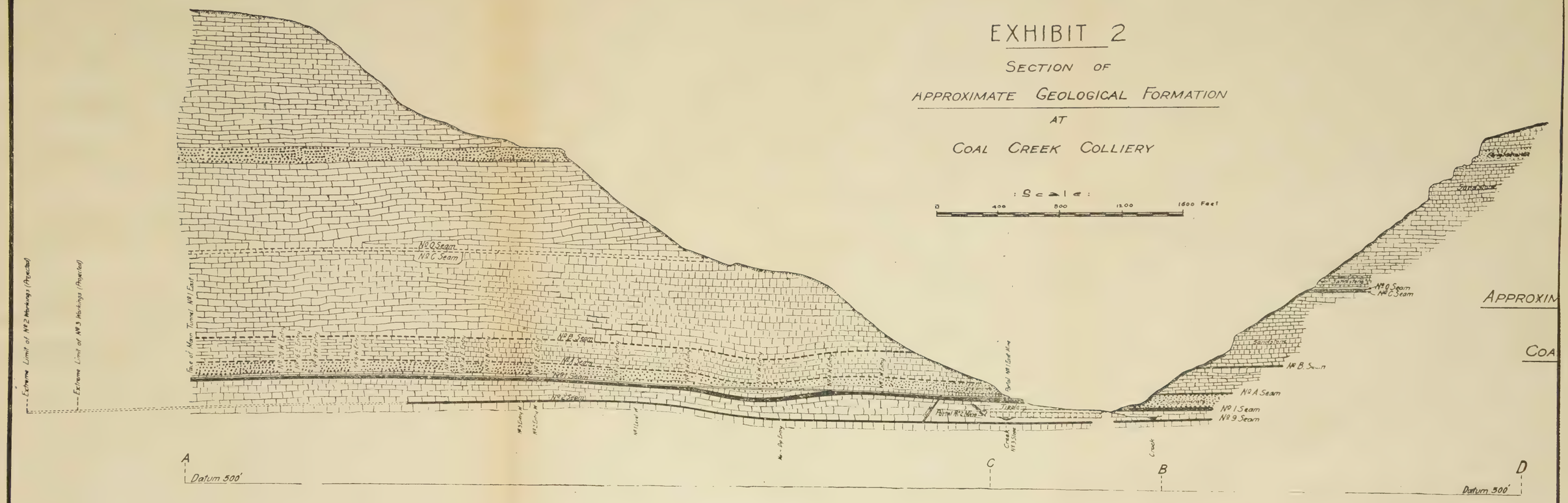
COA

SECTION C-D SHOWS COVER OVER SEAMS ON NORTH SIDE

The above section was taken 800 feet West of the Nº 1 East Main Tunnel. Mag. N 28°06'W

EXHIBIT 2

SECTION OF APPROXIMATE GEOLOGICAL FORMATION AT COAL CREEK COLLIERY



: Scale :

0 400 800 1200 1600 Feet

APPROXIN

COA

SECTION A-B SHOWS COVER OVER No 1 EAST MAIN TUNNEL

Magnetic North

SECTION C-D SHOWS COVER OVER SEAMS ON NORTH SIDE

The above section was taken 800 feet West of the No 1 East Main Tunnel. Mag. N 28°06' W

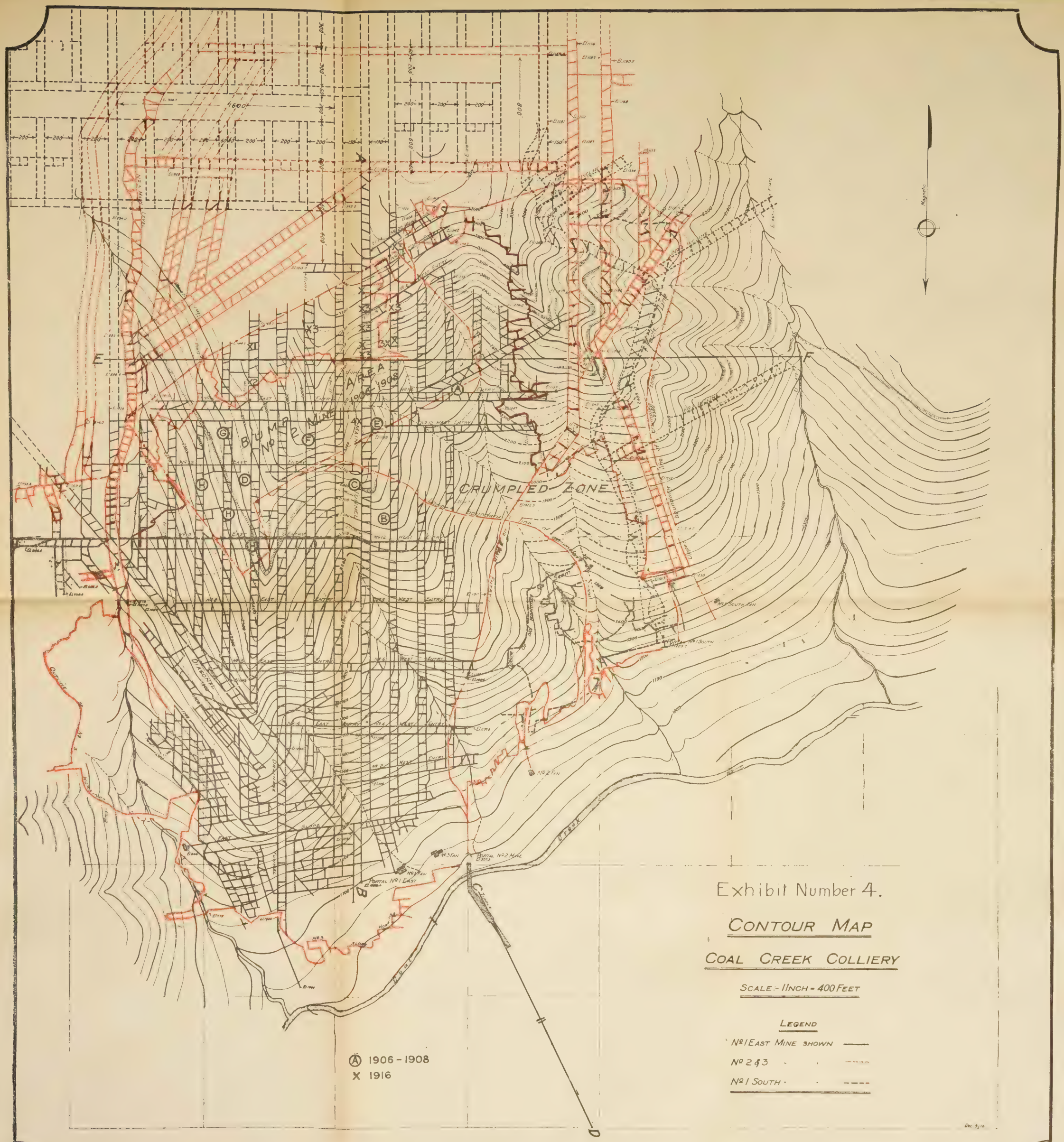


Exhibit Number 4.

CONTOUR MAP

COAL CREEK COLLIERY

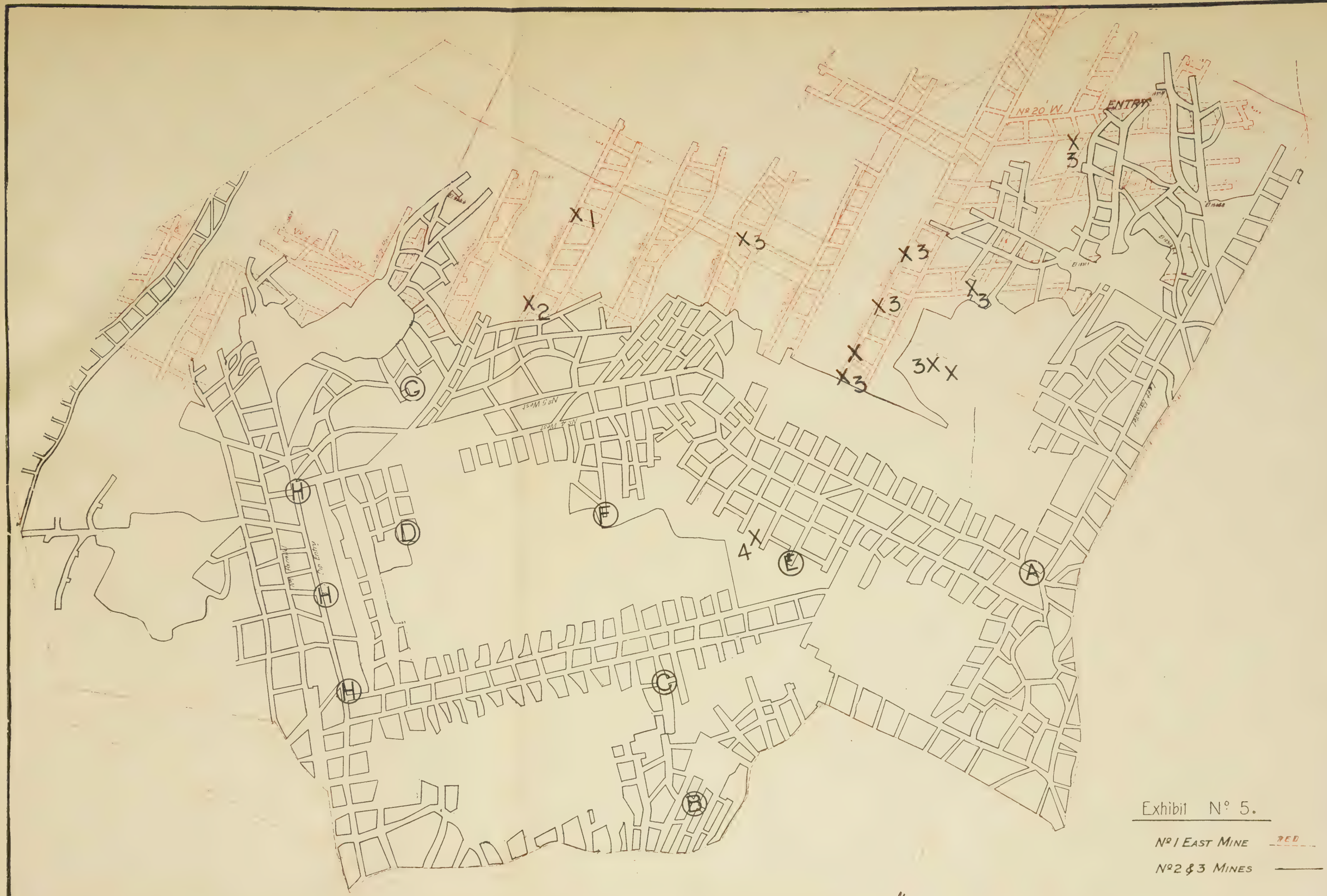
SCALE:- 1 INCH = 400 FEET

LEGEND

No 1 EAST MINE SHOWN ——

No 2 & 3 . . ——

No 1 SOUTH . . ----


No 20 W.
ENTRY
X1
X2
X3
X3
X3
X3
X
X3
3X X
4X
5'-0" - 6'-0" COAL (AVERAGE)
SCALE 1"=100'
Exhibit N° 5.
N°1 EAST MINE RED
N°2 & 3 MINES
A 1906 - 1908
X 1916

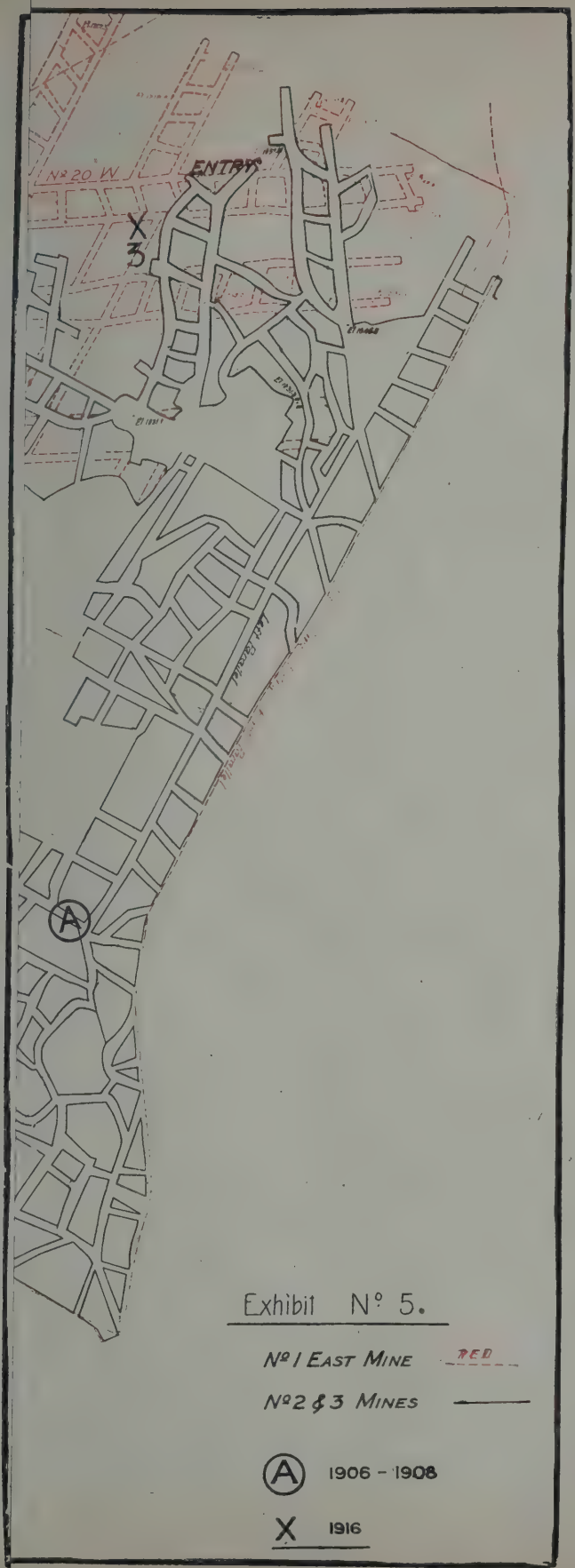


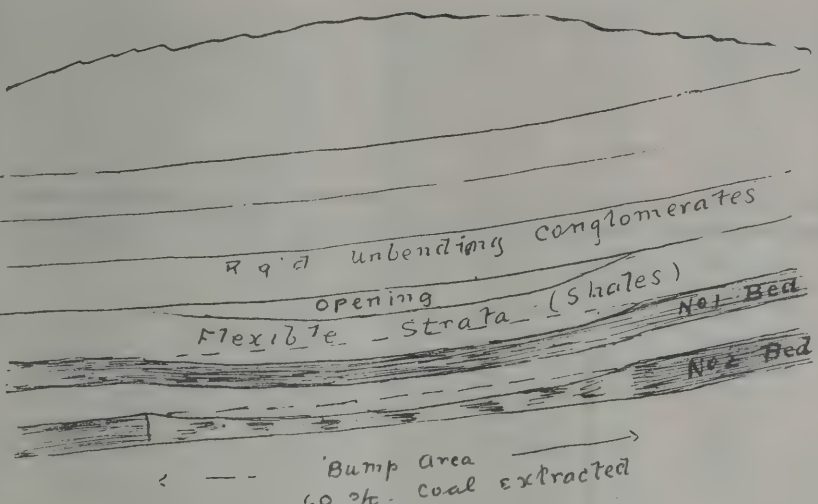
Exhibit N° 5.

N°1 EAST MINE — RED

N°2 & 3 MINES ——

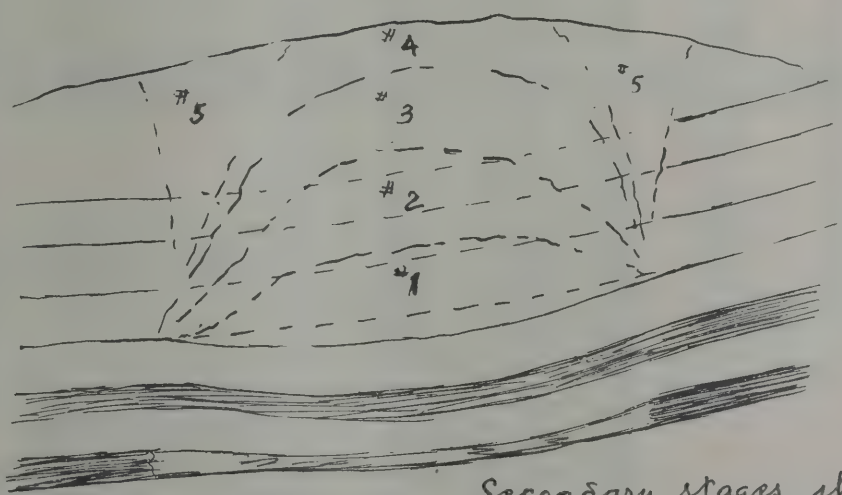
(A) 1906 - 1908

X 1916



Sketch profile not to scale showing conjectured sinking of flexible strata over No 2 Bed excavated 160% area with formation of wide opening under rigid beds

Exhibit N° 9



Secondary stages showing breaking of rigid bed successively until spaces are filled or surface reached The successive falls causing bump in mines below

Geo S Rice

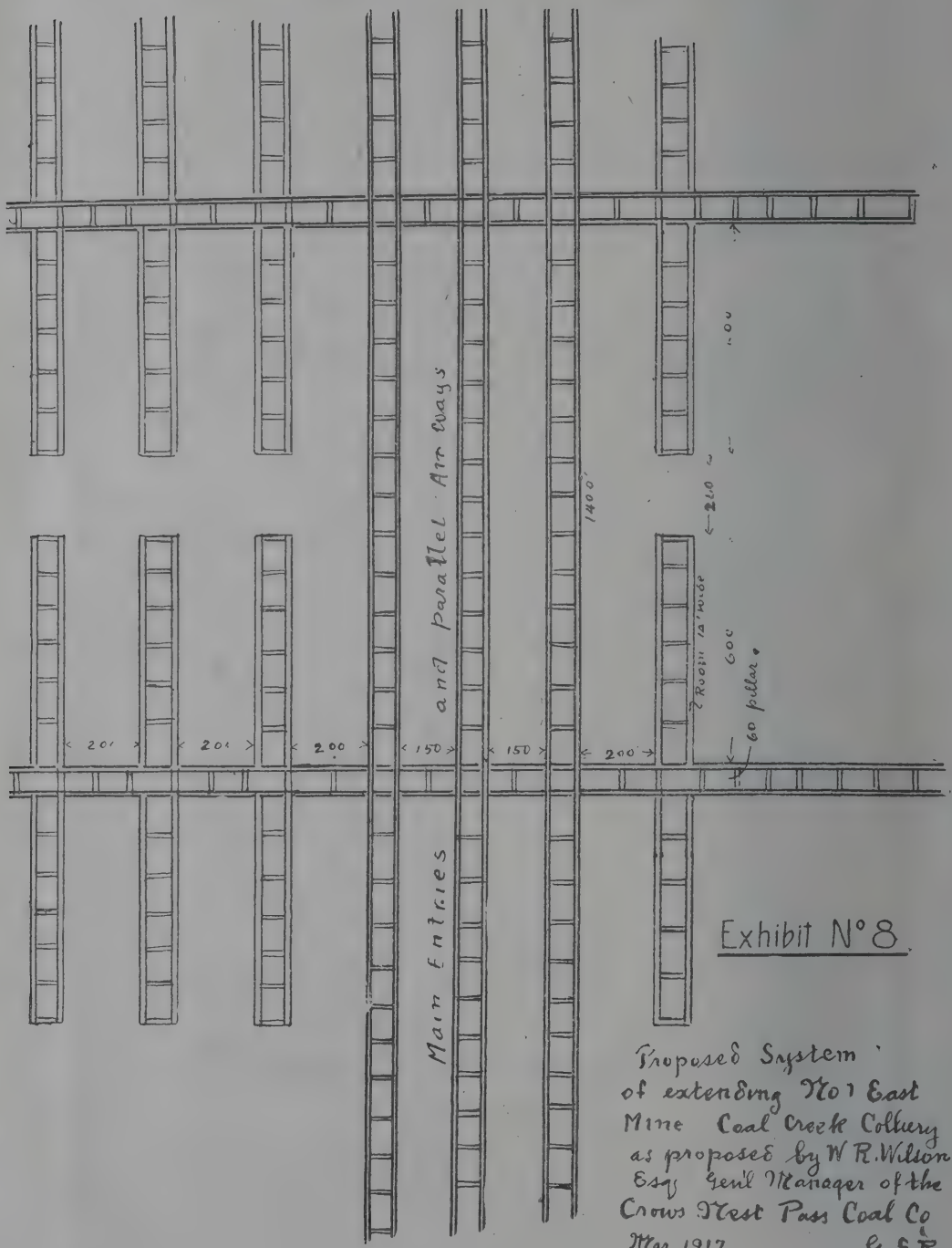


Exhibit N° 8.

Proposed System of extending No 1 East Mine Coal Creek Colliery as proposed by W R. Wilson Esq Genl Manager of the Crows Nest Pass Coal Co Mar 1917 G. S. T

EXAMINATIONS FOR COAL-MINE OFFICIALS.

The "Coal-mines Regulation Act," as now consolidated and amended, provides that all officers of a coal-mining company having any direct charge of work underground shall hold Government Certificates of Competency, which are to be obtained only after passing an examination before a duly qualified Board, appointed for the purpose of holding such examinations, and known as the Managers' Board.

The certificates granted on the recommendation of such Board and the requirements shall be as follows:—

"(*a.*) If a candidate for a manager, that he is a British subject and has had at least five years' experience in and about the practical working of a coal-mine, and is at least twenty-five years of age; or, if he has taken a degree in scientific and mining training, including a course in coal-mining at a university or mining school approved by the Minister of Mines, that he has had at least four years' experience in and about the practical working of a coal-mine:

"(*b.*) If a candidate for overman, that he has had at least five years' experience in and about the practical working of a coal-mine, and is at least twenty-three years of age:

"(*c.*) If a candidate for shiftboss, fireboss, or shotlighter, that he has had at least three years' experience in and about the practical working of a coal-mine, is the holder of a certificate of competency as a coal-miner, and is at least twenty years of age:

"(*d.*) A candidate for a certificate of competency as manager, overman, shiftboss, fireboss, or shotlighter shall produce a certificate from a duly qualified medical practitioner or St. John or other recognized ambulance society, showing that he has taken a course in ambulance-work fitting him, the said candidate, to give first aid to men injured in coal-mining operations.

"For the purposes of this section the experience demanded by such section shall be of such character as the Board shall consider of practical value in qualifying the candidate for the position to which such class of certificate applies.

"Experience had in a mine outside of the Province may be accepted should the Board consider such of equal value."

Any certificate is considered as including that of any lower class.

EXAMINATION FOR MINERS.

In addition to the examinations and certificates already specified as coming under the Managers' Board, the Act further provides that every coal-miner shall be the holder of a certificate of competency as such. By "miner" is meant "a person employed underground in any coal-mine to cut, shear, break, or loosen coal from the solid, whether by hand or machinery."

Examinations for a miner's certificate are held each month at each colliery by a Board of Examiners, known as the Miners' Board, and consisting of an examiner appointed by the owners, an examiner elected by the miners of that colliery, and an examiner appointed by the Government.

BOARD OF EXAMINERS FOR COAL-MINE OFFICIALS.

FIRST-, SECOND-, AND THIRD-CLASS CERTIFICATES.

Report of Tully Boyce, Secretary of Board.

I beg to submit the annual report covering the transactions of the above Board for the year ending December 31st, 1917.

The Board consists of Thos. R. Stockett, of Vancouver, Chairman; Andrew Thomson, of Nanaimo, Vice-Chairman; Tully Boyce, of Nanaimo, Secretary; Geo. Wilkinson, of Victoria, Chief Inspector of Mines; Andrew Bryden, of Merritt; and Bernard Caufield, of Coal Creek.

There was one change in the personnel of the Board during the year, caused by the resignation of Thomas Graham as Chief Inspector of Mines, who was succeeded by George Wilkinson as Chief Inspector and ex-officio member of the Board.

The meetings are held in the office of the Board, Nanaimo.

Two examinations for First-, Second-, and Third-class Certificates were held during the year; the first being held on the 15th, 16th, and 17th days of May at Nanaimo, Cumberland, Merritt, and Fernie, at which there were 47 candidates, as follows: For first-class there were 14 candidates, 4 of whom passed and 10 failed; for second-class there were 8 candidates, 5 of whom passed and 3 failed; for third-class there were 25 candidates, 15 of whom passed and 10 failed.

The next examination was held on the 13th, 14th, and 15th days of November at Nanaimo, Cumberland, and Fernie; no applications being received from the Merritt Mining District, no examination was held there. At this examination there were 36 candidates, as follows: For first-class there were 9 candidates, 6 of whom passed and 3 failed; for second-class there were 6 candidates, 4 of whom passed and 2 failed; for third-class there were 21 candidates, 15 of whom passed and 6 failed.

Certificates of competency have been applied for and granted to all the successful candidates, except one first-class and two third-class, who have not yet applied (names noted on appended list).

During the year the Board had a complete set of specimen ventilation plans prepared for distribution, which was very much appreciated by prospective candidates. These specimen ventilation plans, with copies of previous questions in printed form, may be had by applying to the Secretary at Nanaimo.

LIST OF CANDIDATES TO WHOM CERTIFICATES WERE ISSUED AT THE EXAMINATIONS HELD ON MAY 15TH, 16TH, AND 17TH, 1917, AT NANAIMO, CUMBERLAND, MERRITT, AND FERNIE; AND ON NOVEMBER 13TH, 14TH, AND 15TH, 1917, AT NANAIMO, CUMBERLAND, AND FERNIE.

First-class Certificates.

NAME.	DATE.	No.
Morris Wilbur Garman	Nov. 15th, 1917	
Joseph Bertram de Hart	May 17th, "	
John Cobden Hughes	" "	
Robert Laird	Nov. 15th, "	
Dudley Michell	" "	
William Harrison Moore	May 17th, "	
Samuel Kirkham Mottishaw	Nov. 15th, "	
Thomas Bowerman Williams	May 17th, "	
Ridgeway Robinson Wilson	Nov. 15th, "	

Second-class Certificates.

NAME.	Date.	No.
Walter Almond	Nov. 15th, 1917	B 213
John Bell	May 17th, "	B 212
Alexander Ewart	" "	B 208
Robert Laird	" "	B 210
John Marsh	Nov. 15th, "	B 216
Peter Millar Ramsay	May 17th, "	B 209
Thomas Tully	Nov. 15th, "	B 214
Arthur William Watson	May 17th, "	B 211
John Samuel Williams	Nov. 15th, "	B 215

Third-class Certificates.

NAME.	Date.	No.
Peter Blane Anderson	Nov. 15th, 1917	C 660
Alfred Ball	May 17th, "	C 635
Andrew Murray Bennett	Nov. 15th, "	C 661
Daniel Caldwell	May 17th, "	C 639
Samuel Campbell	Nov. 15th, "	C 662
George Carson	May 17th, "	C 663
John Charnock	Nov. 15th, "	C 653
William Devoy	May 17th, "	C 638
William Green	Nov. 15th, "	C 659
Samuel Hampton	" "	C 650
Arthur Hancock	" "	C 656
Isaac Hill	" "	C 664
Ernest Kelly	May 17th, "	C 646
Paul Laynard	" "	C 637
William Lindsay	" "	C 642
John Marrs	" "	C 640
William Morgan	" "	C 636
John Malcolm McArthur	" "	C 648
Neil McMillan	Nov. 15th, "	C 654
James William Parkinson	" "	C 655
George Harewood Perry	May 17th, "	C 643
Jasper Rutherford	" "	C 644
Francis Scarpino	" "	C 649
Charles Thomason	Nov. 15th, "	C 657
Ernest Hedley Ward	May 17th, "	C 641
William Watson	" "	C 645
Daniel Wilson	Nov. 15th, "	C 658
William Wilson	May 17th, "	C 647

Delinquents from Previous Examinations who have since received Certificates.

Second-class Candidates.

NAME.	Date.	No.
John H. Brownrigg	May 17th, 1917	B 124
John Michek	" "	B 189

Third-class Candidates.

NAME.	Date.	No.
Thomas Eccleston	May 17th, 1917	C 482
George William Nash	" "	C 565
Richardson Stephen Phillips	" "	C 620

REGISTERED LIST OF HOLDERS OF CERTIFICATES OF COMPETENCY AS COAL-MINE OFFICIALS.

FIRST-CLASS CERTIFICATES.—SERVICE CERTIFICATES ISSUED UNDER SECTION 39, "COAL MINES REGULATION ACT, 1877."

Edward G. Prior.
Thomas A. Buckley.
James Dunsmuir, Victoria.
James Cairns, Comox.

FIRST-CLASS CERTIFICATES OF COMPETENCY ISSUED UNDER "COAL MINES REGULATION ACT, 1897."

NAME.	DATE.
Shepherd, Francis H	March 5th, 1881
Honobin, William	May 1st, 1882
Little, Francis D	" 1st, "
Chandler, William	December 21st, 1883
Priest, Elijah	" 21st, "
McGregor, James	January 18th, 1888
Randle, Joseph	" 18th, "
Matthews, John	" 8th, 1889
Norton, Richard Henry	August 26th, "
Bryden, Andrew	December 30th, "
Sharp, Alexander	October 27th, 1891
Kesley, John	March 4th, 1892
Wall, William H	May 30th, 1896
Morgan, Thomas	" 30th, "
Wilson, David	" 30th, "
Smith, Frank B	" 30th, "
Bradshaw, George B	June 12th, 1899
Simpson, William G	" 12th, "
Hargreaves, James	February 5th, 1901
Drinnan, Robert G	" 5th, "
Stockett, Thomas, Jr	August 3rd, "
Cunliffe, John	" 3rd, "
Evans, Daniel	" 3rd, "
McEvoy, James	October 17th, 1902
Wilson, A. R	" 17th, "
Simister, Charles	" 17th, "
Budge, Thomas	" 17th, "
Mills, Thomas	" 17th, "
Faulds, Alexander	" 17th, "
Richards, James A	" 17th, "
McLean, Donald	January 21st, 1905
Wilkinson, Geo	" 21st, "
Wright, H. B	" 21st, "
Coulthard, R. W	" 21st, "
Roaf, J. Richardson	" 21st, "
John, John	" 21st, "
Manley, H. L	" 21st, "
Battey, Richard	May 27th, 1913
Baxter, Andrew	June 10th, 1911

First-class Certificates issued under "Coal Mines Regulation Act Further Amendment Act, 1904."

Name.	Date.	Name.	Date.
Biggs, J. G.	July 22, 1908	Macauley, D. A.	June 10, 1911
Bonar, Robert.	Oct. 28, 1911	McCulloch, James	Sept. 10, 1910
Brace, Tom.	May 13, 1915	McGuckie, Thomas	July 22, 1908
Bridge, Edward.	July 22, 1908	McKendrick, Andrew	May 27, 1913
Brown, David.	May 21, 1914	McMillan, J. H.	Sept. 10, 1910
Brown, Robert Joyce	" 13, 1915	McVicar, Samuel	May 1, 1909
Caufield, Bernard.	" 1, 1909	Mazey, William John	Oct. 31, 1912
Church, James A. H.	June 10, 1911	Miard, Henry Ernest	May 9, "
Cox, Richard.	May 13, 1915	Michell, Dudley	Nov. 15, 1917
Crowder, James.	June 10, 1911	Millar, John K.	" 22, 1906
Cunningham, John Howard.	May 9, 1912	Miller, Andrew Anderson	Oct. 31, 1912
Davidson, W. A.	" 1, 1909	Montgomery, John W.	May 1, 1909
Davies, David.	June 10, 1911	Moore, Wm. H.	" 17, 1917
Davies, Thos. Owen.	May 21, 1914	Mordy, Thomas.	Sept. 10, 1910
de Hart, J. B.	" 17, 1917	Mottishaw, Sam. K.	Nov. 15, 1917
Derbyshire, James.	Nov. 9, 1907	Musgrove, J. T.	Oct. 28, 1911
Devlin, Henry.	May 1, 1909	Newton, John.	July 22, 1908
Dickson, James.	Oct. 31, 1912	O'Brien, George	May 21, 1914
Elliott, Daniel.	Nov. 9, 1907	Ovington, John.	" 27, 1913
Emmerson, Joseph.	" 9, "	Peacock, Frank David.	Oct. 28, 1911
Fairfoull, Robert.	June 10, 1911	Penman, Hugh	May 21, 1914
France, Thos.	Nov. 22, 1906	Phelan, Arthur	" 27, 1913
Fraser, Norman.	Mar. 4, 1905	Powell, J. W.	June 10, 1911
Freeman, H. N.	May 1, 1909	Quinn, John Graham.	July 8, 1916
Galloway, C. F. J.	July 22, 1908	Roper, William.	May 13, 1915
Garman, Morris W	Nov. 15, 1917	Russell, John	" 21, 1914
Gascoyne, Rowland B.	May 21, 1914	Shanks, John	" 1, 1909
Glover, Francis.	Oct. 31, 1912	Shaw, Alex.	Nov. 14, 1905
Graham, Charles.	Nov. 14, 1905	Shaw, William	May 9, 1912
Graham, Thomas.	" 9, 1907	Shenton, T. J.	Sept 10, 1910
Gray, James	" 27, 1909	Shone, Samuel.	May 1, 1909
Henderson, Robert.	" 27, "	Sloan, Hugh.	Nov. 27, "
Hewlett, Howe.	May 27, 1913	Smith, A. E.	Oct. 28, 1911
Holden, James.	" 1, 1909	Smith, Joseph.	July 22, 1908
Howden, Archibald	" 27, 1913	Spicer, J. E.	Oct. 28, 1911
Howells, Nathaniel	Oct. 28, 1911	Spruston, T. A.	Nov. 27, 1909
Hughes, John C.	May 17, 1917	Stevens, L. C.	" 27, "
Humphries, Clifford.	June 10, 1911	Stewart, R. T.	Sept. 10, 1910
Hunter, Alex. B.	July 8, 1916	Strachan, Robert	Mar. 4, 1905
Jackson, Thos. R.	Nov. 9, 1907	Strang, James.	June 10, 1911
James, William.	July 22, 1908	Thomas, J. D.	Sept. 10, 1910
Jaynes, Frank.	May 13, 1915	Thorne, B. L.	" 10, "
Jemson, Jas. W.	" 27, 1913	Touhey, James	May 21, 1914
Kellock, George.	June 10, 1911	Wallbank, J.	Sept. 10, 1910
Kinsman, A. D.	Sept. 10, 1910	Warburton, Ernest Leonard	July 8, 1916
Knox, T. K.	July 27, 1909	Williams, Thos. B.	May 17, 1917
Laird, Robert.	Nov. 15, 1917	Williams, Thos. H.	Nov. 22, 1906
Lancaster, William	July 22, 1908	Wilson, Ridgeway R.	" 15, 1917
Leighton, Henry.	May 9, 1912	Wylie, John	July 22, 1908

Second-class Certificates of Service.

Name.	Date.	Cer. No.	Name.	Date.	Cer. No.
Lee, John S.	March 4, 1905	B 9	Hunt, John	March 4, 1905	B 13
Millar, J. K.	" 4, "	B 10	Walker, David	" 4, "	B 14
McCliment, John	" 4, "	B 11	Powell, William Baden	" 4, "	B 16
Martin, David	" 4, "	B 12	Bryden, Alexander.	" 4, "	B 18

SECOND-CLASS CERTIFICATES OF COMPETENCY ISSUED UNDER "COAL MINES REGULATION ACT FURTHER AMENDMENT ACT, 1904."

NAME.	DATE.	Cer. No.	NAME.	DATE.	Cer. No.
Adamson, Robert	Sept. 10, 1910	B 120	Gray, David	May 1, 1909	B 76
Allan, Alex. McDairmid	May 27, 1913	B 167	Gray, George	July 8, 1916	B 207
Almond, Walter	Nov. 15, 1917	B 213	Hamilton, Robert N	May 21, 1914	B 175
Barclay, Andrew	July 29, 1905	B 25	Henderson, Robert	July 22, 1908	B 60
Baybutt, Thomas	" 8, 1916	B 206	Horrocks, Abner G	June 10, 1911	B 130
Bell, John	May 17, 1917	B 212	Howells, Nathaniel	Nov. 27, 1909	B 97
Bevis, Nathaniel	Sept. 10, 1910	B 123	Huby, Norman W	May 13, 1915	B 198
Biggs, John	May 1, 1909	B 94	Hudson, George	Sept. 10, 1910	B 121
Biggs, John G	Nov. 2, 1907	B 40	Hughes, John C	" 10, "	B 109
Blair, James	May 13, 1915	B 197	Hutton, Isaac	May 21, 1914	B 185
Brace, Tom	Nov. 27, 1909	B 96	Hutton, John	" 9, 1912	B 154
Bridge, Edward	Oct. 23, 1906	B 33	Jackson, Thos. R	Mar. 4, 1905	B 5
Brown, David	Sept. 10, 1910	B 108	James, David	Nov. 2, 1907	B 58
Brown, James L	Oct. 28, 1911	B 136	Jarrett, Fred	May 1, 1909	B 84
Brown, John C	" 23, 1906	B 39	Jaynes, Frank	Sept. 10, 1910	B 111
Brown, John Todd	May 9, 1912	B 150	John, Francis	July 8, 1916	B 200
Brown, R. J	Oct. 28, 1911	B 134	John, Howell	Sept. 10, 1910	B 122
Brown, Robert	May 21, 1914	B 183	Johnson, Moses	May 1, 1909	B 75
Brown, Robert Sneddon	" 13, 1915	B 196	Jones, William T	July 22, 1908	B 66
Brownrigg, John H	" 17, 1917	B 124	Jordon, Thos	Nov. 27, 1909	B 104
Bushell, J. P	" 1, 1909	B 81	Joyce, Walter	May 27, 1913	B 168
Carroll, Henry	July 22, 1908	B 62	Kirkwood, John Robertson	Oct. 31, 1912	B 160
Caufield, Bernard	Oct. 23, 1906	B 30	Knowles, James E	" 28, 1911	B 137
Caufield, John	July 8, 1916	B 199	Laird Robert	May 17, 1917	B 210
Cawthorne, L	May 1, 1909	B 93	Lancaster, William	Nov. 2, 1907	B 50
Challinor, Jno. Thomas	" 27, 1913	B 169	Lander, Frank	May 13, 1915	B 195
Challoner, Jno. Arthur	" 21, 1914	B 178	Lane, Joseph	" 9, 1912	B 142
Churchill, James	July 22, 1908	B 65	Lee, Robert John	Sept. 10, 1910	B 110
Clarkstone, Wm. W	May 21, 1914	B 180	Littler, Matthew	Oct. 31, 1912	B 157
Commons, Wm.	Sept. 10, 1910	B 115	Luck, George	June 10, 1911	B 128
Courtney, A. W	Oct. 28, 1911	B 138	Manifold, Albert	May 9, 1912	B 145
Cox, Richard	May 9, 1912	B 143	Marsh, John	Nov. 15, 1917	B 216
Crawford, David	" 1, 1909	B 88	Mason, Joseph	May 13, 1915	B 193
Cunliffe, Thomas	" 1, "	B 78	Massey, H	Nov. 27, 1909	B 99
Dando, John	" 27, 1913	B 164	Mather, Thomas	June 10, 1911	B 127
Daniels, David	Nov. 2, 1907	B 53	Matusky, A	May 1, 1909	B 91
Derbyshire, James	Oct. 23, 1906	B 32	Mayer, Ralph Waldo	" 9, 1912	B 144
Davidson, Hugh	May 27, 1913	B 165	Mazay, W. J	Nov. 27, 1909	B 101
Davies, Stephen	Sept 10, 1910	B 113	Merryfield, William	July 22, 1908	B 61
Dennis, Fred. W	May 21, 1914	B 174	Miard, Hy. E	Sept. 10, 1910	B 107
Devlin, Ernest H	" 21, "	B 179	Michek, John	May 17, 1917	B 189
Devlin, Henry	Nov. 2, 1907	B 44	Michell, Dudley	" 13, 1915	B 187
Dewar, Alexander	Oct. 31, 1912	B 162	Middleton, Robert	July 22, 1908	B 72
Dickenson, Clifford	May 13, 1915	B 189	Mitchell, Henry	" 8, 1916	B 201
Dunsmuir, John	Nov. 14, 1905	B 26	Monks, James	Nov. 2, 1907	B 55
Dykes, J. W	May 1, 1909	B 77	Moore, Wm. H	May 21, 1914	B 173
Eccleston, Wm	" 1, "	B 87	Morgan, John	Nov. 2, 1907	B 43
Ewart, Alexander	" 17, 1917	B 208	Morris, John	July 22, 1908	B 67
Fairfoull, James	" 21, 1914	B 186	Morton, Robert W	" 22, "	B 59
Fairfoull, R	" 1, 1909	B 83	Mottishaw, S. K	Oct. 28, 1911	B 135
Finlayson, James	July 29, 1905	B 21	Musgrave, J	May 1, 1909	B 90
Ford, Allan	May 27, 1913	B 171	Myers, Peter	" 9, 1912	B 149
Foster, W. R	Nov. 27, 1909	B 102	McDonald, J. A	Oct. 28, 1911	B 133
France, Thos	" 14, 1905	B 27	McDonald, John	May 27, 1913	B 172
Francis, David M	May 21, 1914	B 182	McFegan, W	Nov. 31, 1909	B 106
Francis, Enoch	" 1, 1909	B 86	McGarry, Martin	Oct. 31, 1912	B 156
Francis, James	July 22, 1908	B 63	McGuckie, Thomas M	" 23, 1906	B 35
Frater, George	" 8, 1916	B 204	McKelvie, J	May 1, 1909	B 92
Freeman, Henry N	Nov. 2, 1907	B 45	McKendrick, And	Sept. 10, 1910	B 112
Garbett, Richard	Oct. 31, 1912	B 161	McMillan, D	June 10, 1911	B 125
Garman, Morris Wilbur	" 31, "	B 155	McNay, Carmichael	May 9, 1912	B 151
Gillespie, Hugh	July 29, 1905	B 24	McPherson, James E	July 22, 1908	B 73
Gillespie, John	Oct. 23, 1906	B 36	Neen, Joseph	June 10, 1911	B 129
Gould, Alfred	May 13, 1915	B 190	Newbury, Arthur	May 21, 1914	B 184
Graham, Chas	Mar. 4, 1905	B 1	Newton, John	Oct. 23, 1906	B 31

SECOND-CLASS CERTIFICATES OF COMPETENCY ISSUED UNDER "COAL MINES REGULATION ACT FURTHER AMENDMENT ACT, 1904"—*Concluded.*

NAME.	DATE.	Cer. No.	NAME.	DATE.	Cer. No.
Newton, Wm.	Sept. 10, 1910	B 116	Stewart, J. M.	May 1, 1909	B 95
O'Brien, Charles	May 9, 1912	B 148	Stobbart, Jacob.	" 9, 1912	B 153
O'Brien, George	" 1, 1909	B 82	Stockwell, William	Nov. 2, 1907	B 56
Ovington, John.	Nov. 2, 1907	B 52	Strang, Thomas	Oct. 31, 1912	B 158
Parkinson, T.	May 1, 1909	B 80	Taylor, James	May 13, 1915	B 194
Parnham, Charles.	Nov. 2, 1907	B 49	Taylor, Thomas	July 8, 1916	B 203
Quinn, James.	May 21, 1914	B 181	Thomas, J. B.	Nov. 27, 1909	B 105
Quinn, John.	" 9, 1912	B 146	Thomas, Joseph D.	Oct. 23, 1906	B 38
Ramsay, Peter Millar	" 17, 1917	B 209	Thompson, Joseph	Sept. 10, 1910	B 114
Rankin, Geo.	Nov. 27, 1909	B 103	Touhey, James	May 9, 1912	B 147
Raynes, M. T.	Oct. 28, 1911	B 139	Touhey, William	July 8, 1916	B 205
Reid, Thomas	July 29, 1905	B 23	Tonge, Thomas	" 22, 1908	B 71
Reid, Wm.	Oct. 28, 1911	B 132	Tully, Thomas	Nov. 15, 1917	B 214
Renny, James.	" 28, "	B 140	Vanhulle, Peter.	" 2, 1907	B 54
Richards, Thomas.	Nov. 2, 1907	B 57	Virgo, John	May 1, 1909	B 89
Richards, Samuel	May 9, 1912	B 152	Walker, William	" 13, 1915	B 192
Rigby, John	July 29, 1905	B 29	Warburton, Ernest L.	" 27, 1913	B 170
Roberts, Ebenezer	Sept. 10, 1910	B 117	Watson, Adam G.	Nov. 14, 1905	B 28
Robinson, William	July 22, 1908	B 69	Watson, Arthur W.	May 17, 1917	B 211
Rogers, George	May 1, 1909	B 79	Webber, John Frank	Mar. 4, 1905	B 3
Roper, William.	" 9, 1912	B 141	Wesnedge, William.	Nov. 27, 1909	B 98
Russell, John	Nov. 2, 1907	B 47	White, John	" 2, 1907	B 48
Saville, Luther.	" 2, "	B 51	Whitehouse, William	Oct. 31, 1912	B 163
Shanks, David.	Oct. 31, 1912	B 159	Williams, John Samuel.	Nov. 15, 1917	B 215
Shaw, Alex	July 29, 1905	B 19	Wilson, Robinson.	May 21, 1914	B 177
Shaw, Thomas John.	May 27, 1913	B 166	Wilson, Thomas	July 22, 1908	B 74
Somerville, Alex.	Mar. 4, 1905	B 4	Wilson, William.	" 22, "	B 70
Spruston, Robert Lecce.	July 8, 1916	B 202	Wood, Thos. James.	May 21, 1914	B 176
Spruston, Thos. A.	Nov. 2, 1907	B 46	Worthington, Joseph.	" 1, 1909	B 85
Stafford, Matthew	June 10, 1911	B 131			

THIRD-CLASS CERTIFICATES ISSUED UNDER "COAL MINES REGULATION ACT FURTHER AMENDMENT ACT, 1904."

NAME.	DATE.	Cer. No	NAME.	DATE.	Cer. No.
Adamson, Robert.	May 1, 1909	C 323	Bell, Fred	May 27, 1913	C 514
Allan, Alexander	Oct. 28, 1911	C 430	Bell, John	" 9, 1912	C 477
Almond, Alex.	" 1, 1907	C 252	Bennett, Andrew M.	Nov. 15, 1917	C 661
Almond, Walter	July 22, 1908	C 286	Bennett, John.	Oct. 14, 1914	C 597
Anderson, John.	Oct. 28, 1911	C 437	Bennie, John.	June 10, 1911	C 411
Anderson, Peter Blane	Nov. 15, 1917	C 660	Beveridge, Wm.	" 10, "	C 396
Anderson, Robt.	Oct. 14, 1914	C 599	Biggs, John.	Mar. 4, 1905	C 210
Angell, William	May 21, "	C 591	Biggs, Thomas	Oct. 28, 1911	C 449
Arbuckle, John.	" 13, 1915	C 622	Birchell, Richard.	" 1, 1907	C 266
Archibald, Geo.	" 21, 1914	C 569	Blair, James	" 31, 1912	C 502
Archibald, Thomas.	Oct. 28, 1911	C 454	Blewett, Ernest	July 22, 1908	C 298
Ball, Alfred	May 17, 1917	C 635	Bradley, William.	" 22, 1908	C 291
Bann, Thomas.	Oct. 31, 1912	C 494	Bridge, Edward	" 29, 1905	C 223
Baggaley, J.	July 22, 1908	C 300	Briscoe, F.	" 22, 1908	C 309
Bain, James	May 27, 1913	C 546	Broderick, Matthew.	Jan. 21, 1913	C 525
Ball, Benjamin	" 21, 1914	C 583	Brown, Arthur A.	Oct. 14, 1914	C 596
Barker, Robert	June 10, 1911	C 415	Brown, David	Nov. 1, 1909	C 348
Barlow, B. R.	May 1, 1909	C 337	Brown, George	July 8, 1916	C 626
Barnes, B. J	" 1, "	C 346	Brown, James	Sept. 10, 1910	C 364
Bateman, Joseph William.	Oct. 28, 1913	C 551	Brown, James	June 10, 1911	C 412
Bauld, Wm	June 10, 1911	C 422	Brown, James	July 8, 1916	C 625
Baxter, Robert.	Oct 28, "	C 450	Brown, Jas. Millie.	May 13, 1915	C 615
Baybutt, Thomas.	May 27, 1913	C 548	Brown, John.	Sept. 10, 1910	C 392
Beeton, D. H.	" 1, 1909	C 338	Brown, Robert	Oct. 28, 1911	C 451

THIRD-CLASS CERTIFICATES ISSUED UNDER "COAL MINES REGULATION ACT FURTHER AMENDMENT ACT, 1904"—*Continued.*

NAME.	DATE.	Cer. No.	NAME.	DATE.	Cer. No.
Brown, Robert D.	June 10, 1911	C 423	Fitzpatrick, T. J	Oct. 2, 1911	C 452
Brown, Robert S.	" 10, "	C 408	Flockart, David	Jan. 21, 1913	C 531
Brown, Wm. A.	May 21, 1914	C 576	Ford, Allen	Oct. 28, 1911	C 445
Brown, William Gold	July 8, 1916	C 629	Fowler, Robert	" 31, 1912	C 495
Brownrigg, J. H.	" 22, 1908	C 276	Francis, David Morgan	" 28, 1913	C 558
Bullen, Thomas	Sept. 10, 1910	C 379	Francis, James	" 1, 1907	C 250
Bushell, Jas. P.	Oct. 1, 1907	C 264	Frater, George	May 13, 1915	C 616
Cairns, Andrew	June 10, 1911	C 420	Freeman, H. N.	Nov. 14, 1905	C 230
Cairns, Robert	May 27, 1913	C 539	Frew, Andrew	" 27, 1909	C 360
Caldwell, Daniel	" 17, 1917	C 639	Frodsham, Vincent	July 22, 1908	C 282
Calverly, Joseph	Sept. 10, 1910	C 375	Furbow, John	Jan. 21, 1913	C 528
Camamile, Hollis	Oct. 28, 1911	C 443	Garbett, Richard	Sept. 10, 1910	C 377
Campbell, Samuel	Nov. 15, 1917	C 662	Gascoyne, Rowland B.	Jan. 21, 1913	C 513
Carr, Peter	Oct. 31, 1912	C 497	Geater, Jas. Gordon	May 21, 1914	C 573
Carson, George	Mar. 17, 1917	C 663	Gemmell, James	Oct. 31, 1912	C 505
Catchpole, Charles	July 29, 1905	C 227	Gillham, John	May 13, 1915	C 623
Caufield, John	May 1, 1909	C 321	Glenn, James	Oct. 28, 1911	C 435
Challoner, Arthur	Oct. 28, 1911	C 433	Gordon, Davis John	May 9, 1912	C 474
Charnock, John	Nov. 15, 1917	C 653	Gourley, Robert	" 9, "	C 470
Cheetham, Ben	July 22, 1908	C 311	Gray, George	" 9, "	C 467
Chester, John	Oct. 28, 1911	C 440	Green, William	Nov. 15, 1917	C 659
Clark, Lewis	June 10, "	C 405	Greenhorn, John	May 21, 1914	C 575
Clark, Walter Pattison	May 9, 1912	C 480	Griffiths, Edward	Oct. 31, "	C 508
Clarkstone, Wm. W.	Oct. 28, 1911	C 431	Gunniss, Matthew	May 9, 1912	C 460
Cleaves, Walter	May 9, 1912	C 475	Hallinan, William	" 1, 1909	C 343
Clifford, William	July 22, 1908	C 313	Halsall, J.	July 22, 1908	C 307
Commons, William	" 22, "	C 304	Hamilton, John	Oct. 28, 1911	C 444
Cooke, Joseph	Mar. 4, 1905	C 209	Hamilton, Robert Nesbitt	" 28, 1913	C 550
Coomb, Alexander	May 27, 1913	C 533	Hampton, Samuel	Nov. 15, 1917	C 650
Cope, Frank	Oct. 28, "	C 549	Hancock, Arthur	" 15, 1917	C 656
Coulthard, James	June 10, 1911	C 407	Hartley, Thomas	Oct. 31, 1912	C 510
Crawford, David	Mar. 4, 1905	C 208	Harwood, Fred	Sept. 10, 1910	C 384
Cunningham, G. F.	Nov. 11, "	C 229	Harvey, Thomas	May 9, 1912	C 466
Cunliffe, Thos	Oct. 1, 1907	C 265	Harvie, George	Sept. 10, 1910	C 378
Dabb, Owen	May 21, 1914	C 578	Heaps, Robert	" 10, 1910	C 373
Dando, John	" 9, 1912	C 465	Hemer, Herbert	Oct. 14, 1914	C 595
Davidson, Hugh	" 9, "	C 464	Henney, Jonathan	June 10, 1911	C 424
Davies, Evan Thomas	" 9, "	C 463	Hendry, James	May 9, 1912	C 471
Davis, William	" 1, 1909	C 339	Heyes, Edward	" 1, 1909	C 320
Dean, Joseph	" 13, 1915	C 611	Hill, Isaac	Nov. 15, 1917	C 664
Derbyshire, A.	June 10, 1911	C 401	Hilley, Fred	July 22, 1908	C 290
Dewar, Alex.	Sept. 10, 1910	C 369	Hilton, R. G.	Sept. 10, 1910	C 376
Devlin, Edward.	Oct. 23, 1906	C 241	Hodson, R. H.	Mar. 4, 1905	C 216
Devlin, Ernest Henry	May 27, 1913	C 538	Holliday, William	July 8, 1916	C 634
Devoy, William	" 17, 1917	C 638	Horbury, Joseph W.	June 10, 1911	C 406
Dickenson, Clifford	" 27, "	C 532	Horrocks, A. G.	May 1, 1909	C 324
Dingsdale, Geo.	Oct. 28, 1911	C 459	Horwood, S	July 22, 1908	C 312
Doherty, J. J.	May 1, 1909	C 340	Houston, Robert	" 8, 1916	C 631
Doney, John	Mar. 4, 1905	C 211	Howells, Nathaniel	May 1, 1909	C 316
Donnachie, John	June 10, 1911	C 425	Huby, Norman	June 10, 1911	C 394
Doodson, Robert	Oct. 28, "	C 455	Hutchison, Ben	Nov. 14, 1905	C 232
Dorrance, Orlin William	Jan. 21, 1913	C 517	Hutchison, Fred	" 27, 1909	C 358
Douglas, D. B.	Oct. 23, 1906	C 235	Hynds, William	July 8, 1916	C 632
Dow, And. Y.	May 21, 1914	C 587	Ireson, John	Oct. 31, 1912	C 507
Dunn, Wm.	Oct. 14, "	C 606	Irvine, David	June 10, 1911	C 413
Dykes, Isaac.	June 10, 1911	C 409	Jack, John	May 21, 1914	C 582
Dykes, Joseph W.	Oct. 1, 1907	C 248	James, Thos.	" 21, "	C 588
Eccleston, Thomas	May 17, 1917	C 482	Jardine, George Edward	Jan. 21, 1913	C 521
Edwards, John	" 27, 1913	C 542	Jarrett, Fred. J.	Oct. 1, 1907	C 256
Elliott, John	" 27, "	C 541	Jaynes, Frank	July 22, 1908	C 277
Elmes, George	Oct. 31, 1912	C 511	Jemson, J. W.	Mar. 4, 1905	C 205
Evans, D.	July 22, 1908	C 284	Jenkins, John	Sept. 10, 1910	C 390
Ewart, Alex.	Sept. 10, 1910	C 374	John, Howel	July 22, 1908	C 305
Ewing, Robert.	May 13, 1915	C 608	Johnson, Moses.	Oct. 1, 1907	C 258
Fairfoull, James	Oct. 28, 1911	C 453	Johnston, Robert	May 9, 1912	C 479

Third-class Certificates issued under "Coal Mines Regulation Act Further Amendment Act, 1904"—*Continued.*

Name.	Date.	Cer. No.	Name.	Date.	Cer. No.
Jones, Alf. Geo	May 21, 1914	C 584	McLellan, William	Mar. 4, 1905	C 219
Jones, Samuel	" 27, 1913	C 518	McLeod, James	July 22, 1908	C 296
Jones, William C	Jan. 21, "	C 556	McLeod, John	May 13, 1915	C 609
Jones, William Ernest	Oct. 28, "	C 221	McMeakin, James	" 13, "	C 612
Jones, W. T	Mar. 4, 1905	C 544	McMillan, D	Sept. 10, 1910	C 363
Joshua, John	May 9, 1912	C 478	McMillan, Edward	Oct. 31, 1912	C 493
Joyce, Walter	Nov. 27, 1909	C 361	McMillan, Neil	Nov. 15, 1917	C 654
Judge, Peter	Sept. 10, 1910	C 391	McNay, Carmichael	July 22, 1908	C 306
Keenan, Wm. James	June 10, 1911	C 426	McNeill, Adam L	" 22, "	C 281
Kelly, Ernest	May 17, 1917	C 646	McNeill, Robert	Sept. 10, 1910	C 387
Kemp, Wm	Oct. 14, 1914	C 594	Meek, Matthew	May 9, 1912	C 484
Kingham, Alfred	" 28, 1913	C 559	Meikle, Harry Alexander	July 8, 1916	C 627
Kirkeberg, H. S	Nov. 27, 1909	C 350	Mercer, Jas	Oct. 14, 1914	C 600
Lancaster, William	Oct. 23, 1906	C 243	Merrifield, George	" 23, 1906	C 239
Lane, Joseph	" 1, 1907	C 254	Merrifield, William	" 23, "	C 236
Leeman, T	May 1, 1909	C 345	Michek, John	May 21, 1914	C 563
Lewis, Benj. J	Sept. 10, 1910	C 386	Miles, John	June 10, 1911	C 414
Leynard, Paul	May 17, 1917	C 637	Millar, Peter	Sept. 10, 1910	C 388
Liddle, John	July 29, 1905	C 228	Mitchell, Charles	May 1, 1909	C 322
Lindsay, William	May 17, 1917	C 642	Mitchell, Henry	Sept. 10, 1910	C 366
Littler, John	June 10, 1911	C 410	Monks, James	Nov. 14, 1905	C 234
Littler, Matthew	" 10, "	C 417	Moore, George	Oct. 23, 1906	C 242
Littler, Robert	" 10, "	C 418	Moore, John	May 1, 1909	C 335
Livingstone, Alex	Oct. 28, "	C 436	Moreland, Thomas	July 22, 1908	C 299
Loxton, George	June 10, "	C 428	Morgan, John	July 29, 1905	C 224
Loxton, John	" 10, "	C 416	Morgan, William	May 17, 1917	C 636
Luck, George	May 1, 1909	C 318	Morris, David	" 9, 1912	C 472
Lynch, Stewart	Oct. 28, 1911	C 432	Mottishow, Samuel K	Oct. 23, 1906	C 237
Mackie, John	June 10, "	C 421	Murdock, Jno. Y	May 21, 1914	C 564
Makin, J. Wm	Sept. 10, 1910	C 385	Myers, Peter	Oct. 28, 1911	C 446
Malone, John	May 21, 1914	C 585	Nanson, T. H	July 22, 1908	C 280
Malone, Patrick	Oct. 1, 1907	C 247	Nash, George William	May 17, 1917	C 565
Maltman, James	" 31, 1912	C 501	Neen, Joseph	Nov. 27, 1909	C 352
Mansfield, A	May 1, 1909	C 336	Nelson, Horatio	Oct. 1, 1907	C 263
Marrs, John	" 17, 1917	C 640	Neilson, William	May 9, 1912	C 481
Marsh, Daniel Parks	" 27, 1913	C 543	Newman, John	Oct. 14, 1914	C 603
Marsh, John	Oct. 1, 1907	C 270	Nicholson, James	May 9, 1912	C 469
Martin, James	June 10, 1911	C 398	Nimmo, James	" 9, "	C 461
Mason, Joseph	July 22, 1908	C 297	Norris, Joshua	Oct. 28, 1913	C 557
Massey, Henry	May 1, 1909	C 317	Oakes, Robert	" 31, 1912	C 498
Mather, Thomas	July 22, 1908	C 293	O'Brien, Charles	Nov. 27, 1909	C 349
Matusky, Andrew	Oct. 1, 1907	C 259	Odgers, Alfred	Jan. 21, 1913	C 529
Mawson, J. T	Nov. 27, 1909	C 359	Odgers, Eli	" 21, "	C 523
Maxwell, Geo	May 21, 1914	C 571	Orr, Alexander	Oct. 28, 1911	C 434
McAlpine, John	Mar. 4, 1905	C 217	Osborne, Hugh	" 28, 1913	C 555
McArthur, John Malcolm	May 17, 1917	C 648	Oswald, Geo. L	Sept. 10, 1910	C 370
McBroom, Al	July 2, 1908	C 287	Owen, Thomas	May 1, 1909	C 347
McCourt, John	Oct. 14, 1914	C 605	Parks, Alexander	Jan. 21, 1913	C 519
McCulloch, James	May 1, 1909	C 315	Parker, L	May 1, 1909	C 341
McDonald, John	Oct. 28, 1911	C 448	Parkinson, James William	Nov. 15, 1917	C 655
McFagen, Alexander	May 9, 1912	C 490	Parkinson, T	July 22, 1908	C 289
McFegan, W	" 1, 1909	C 319	Parrott, Jas. E	May 21, 1914	C 590
McGarry, Martin	" 1, "	C 326	Parson, Herbert	" 13, 1915	C 621
McGrath, James	July 8, 1916	C 630	Pearson, Jonathan	" 9, 1912	C 473
McGuckie, Jno. M	May 21, 1914	C 562	Penman, Hugh	Oct. 28, 1913	C 552
McGuckie, Thomas	July 29, 1905	C 226	Perry, George Harewood	May 17, 1917	C 643
McGuire, Thomas	Oct. 28, 1913	C 553	Perry, James	March 4, 1905	C 215
McIntyre, Neil	May 21, 1914	C 574	Phillips, Richard Stephen	May 17, 1917	C 620
McKelvie, J	July 22, 1908	C 285	Pickup, A	July 22, 1908	C 310
McKenzie, Peter	June 10, 1911	C 427	Picton, W	May 1, 1909	C 333
McKibben, Matthew	May 21, 1914	C 580	Plank, Samuel	Nov. 14, 1905	C 233
McKinley, John	Oct. 28, "	C 442	Poole, Samuel	May 27, 1913	C 536
McLaughlin, James	May 9, 1912	C 485	Potter, Robert	Oct. 31, 1912	C 503
McLachlan, Alex	June 10, "	C 419	Price, Walter	Sept. 10, 1910	C 371
McLean, M. D	Sept. 10, 1910	C 389	Quinn, James	Oct. 28, 1911	C 441

THIRD-CLASS CERTIFICATES ISSUED UNDER "COAL MINES REGULATION ACT FURTHER AMENDMENT ACT, 1904"—*Concluded.*

NAME.	DATE.	Cer. No.	NAME.	DATE.	Cer. No.
Quinn, John	Oct. 28, 1911	C 429	Strachan, John	Oct. 14, 1914	C 604
Radford, Albert	May 21, 1914	C 579	Strang, James	May 13, 1915	C 614
Rallison, R.	July 22, 1908	C 279	Strang, Thomas	June 10, 1911	C 400
Rankin, George	" 22, "	C 275	Strang, Wm.	" 10, "	C 395
Rankin, Wm. Shaw	May 9, 1912	C 489	Sutherland, John	May 27, 1913	C 545
Ratcliffe, Thomas	Oct. 1, 1907	C 253	Taylor, Charles M.	Mar. 4, 1905	C 213
Raynor, Fred	" 1, "	C 257	Taylor, Hugh	Jan. 21, 1913	C 530
Reid, Robert	Sept. 10, 1910	C 383	Taylor, James	May 21, 1914	C 567
Reid, Thos.	May 21, 1914	C 592	Taylor, J. T.	Oct. 28, 1911	C 447
Reid, Wm.	June 10, 1911	C 403	Taylor, Leroy	Sept. 10, 1910	C 381
Reilly, Thomas	July 22, 1908	C 303	Taylor, Thomas	May 21, 1914	C 577
Renney, Jas.	Nov. 27, 1909	C 354	Thacker, Geo.	" 27, 1913	C 537
Richards, James	" 1, 1907	C 249	Thomas, Thomas	Sept. 10, 1910	C 365
Richards, Samuel	Oct. 23, 1906	C 244	Thomas, John B.	Nov. 14, 1905	C 231
Richardson, J. H.	" 28, 1911	C 458	Thomas, Joseph	Mar. 4, "	C 220
Rigby, John	July 29, 1905	C 225	Thomas, Warriett	Oct. 1, 1907	C 273
Roberts, Ebenezer	May 1, 1909	C 327	Thomason, Charles	Nov. 15, 1917	C 657
Robinson, Michael	" 1, "	C 332	Thompson, Thomas	Oct. 1, "	C 267
Robson, Thomas	" 21, 1914	C 566	Thompson, John	" 31, 1912	C 509
Rogers, Ellis	" 13, 1915	C 624	Thompson, Joseph	" 1, 1907	C 269
Roper, William	July 22, 1908	C 274	Thomson, Duncan	Mar. 4, 1905	C 218
Rowan, Alexander	Oct. 31, 1912	C 500	Touhey, William	May 27, 1913	C 547
Rowan, John	" 14, 1914	C 602	Tully, Thomas	" 9, 1912	C 468
Rowbottom, Thomas	" 31, "	C 492	Tune, Elijah	" 9, "	C 476
Royle, Edward	" 31, 1912	C 506	Turnbull, Matthew	Oct. 14, 1914	C 598
Russell, Robert	Nov. 27, 1909	C 351	Vardy, Robt.	May 21, "	C 570
Rutherford, Jasper	May 17, 1917	C 644	Vaughan, John Henry	Oct. 28, 1913	C 560
Rutledge, Edwin	July 22, 1908	C 302	Walker, George	July 8, 1916	C 633
Scott, Henry	" 22, "	C 294	Walker, Jas. Alexander	Oct. 31, 1912	C 496
Saunders, Eustace L.	Jan. 21, 1913	C 520	Walker, Wm.	May 21, 1914	C 586
Scarpino, Francis	May 17, 1917	C 649	Wallace, Fred	Oct. 1, 1907	C 260
Seggie, Robert	Jan. 21, 1913	C 524	Warburton, Ernest Leonard	June 10, 1911	C 399
Shanks, David	Sept. 10, 1910	C 372	Ward, Ernest Hedley	May 17, 1917	C 641
Sharp, James	May 1, 1909	C 325	Wardrop, James	Oct. 31, 1912	C 504
Sharples, J. T.	Sept. 10, 1910	C 380	Watson, Adam G.	Mar. 4, 1905	C 212
Shearer, L.	May 1, 1909	C 330	Watson, Arthur W.	May 27, 1913	C 535
Shipley, John W.	Oct. 28, 1911	C 456	Watson, George	July 22, 1908	C 288
Shooter, Joseph	" 1, 1907	C 261	Watson, Joseph	Jan. 21, 1913	C 515
Shortman, J.	May 1, 1909	C 331	Watson, William	Oct. 22, 1906	C 246
Simister, J. H.	Nov. 27, "	C 353	Watson, William	May 17, 1917	C 645
Simister, W.	May 1, "	C 334	Webb, Herbert	Oct. 28, 1911	C 457
Simms, Hubert Allan	Jan. 21, 1913	C 526	Weeks, John	Mar. 4, 1905	C 214
Sinclair, William	" 21, "	C 527	White James	Oct. 31, 1912	C 499
Skelton, Thos	May 1, 1909	C 344	White, John	" 22, 1906	C 245
Smith, A. E.	Sept. 10, 1910	C 367	Whitehouse, Wm.	June 10, 1911	C 402
Smith, Joseph	Mar. 4, 1905	C 207	Wilkinson, Edward	Oct. 28, "	C 438
Smith, Richard Beveridge	Oct. 28, 1913	C 561	Williams, John Sam.	June 10, "	C 404
Smith, Thos. J.	" 1, 1907	C 271	Williams, Watkin	" 22, 1908	C 301
Smith, Thomas	May 9, 1912	C 486	Wilson, Daniel	Nov. 15, 1917	C 658
Sopwith, Reginald Scott	Jan. 21, 1913	C 512	Wilson, Robinson	June 10, 1911	C 397
* Sparks, Edward	Oct. 1, 1907	C 255	Wilson, Thomas M.	Oct. 1, 1907	C 272
Spencer, G.	May 1, 1909	C 329	Wilson, William	" 1, "	C 262
Spruston, R. L.	Nov. 27, "	C 355	Wilson, William	May 17, 1917	C 647
Spruston, Thomas A.	Mar. 4, 1905	C 206	Winstanley, H.	July 22, 1908	C 283
Stafford, M.	Sept. 10, 1910	C 382	Wintle, Thomas A.	" 29, 1905	C 222
Starr, Wallace	May 9, 1912	C 488	Witherington, George	Oct. 28, 1913	C 554
Staton, Edward	" 21, 1914	C 581	Wood, Thos. James	" 31, 1912	C 491
Steele, Walter	Oct. 28, 1911	C 439	Worthington, J.	July 22, 1908	C 295
Stewart, George	May 27, 1913	C 534	Wright, John	May 21, 1914	C 593
Stewart, James M.	Oct. 23, 1906	C 240	Wright, Robert	" 21, "	C 589
Stockwell, William	" 23, "	C 238	Wright, William	Jan. 21, 1913	C 522

* C 314 issued in lieu of C 255 destroyed by Fernie fire.

COAL-MINE OFFICIALS.

Third-class Certificates issued under "Coal Mines Regulation Act Further Amendment Act, 1904," sec. 38, subsec. (2), in exchange for Certificates issued under the "Coal Mines Regulation Act Amendment Act, 1901."

Name.	Date.	Certificate No.	Name.	Date.	Certificate No.
Adam, Robert	Oct. 12, 1904	C 42	Marsden, John	May 3, 1904	C 21
Addison, Thos	Dec. 10, 1904	C 52	Marshall, Howard	Dec. 6, 1905	C 127
Aitken, James	Oct. 24, 1904	C 44	Miard, Harry E	March 3, 1905	C 76
Allsop, Harry	Oct. 11, 1904	C 34	Middleton, Robt	Feb. 11, 1905	C 71
Ashman, Jabez	Feb. 5, 1907	C 131	Miller, Thos. K	Feb. 21, 1905	C 74
Auchinvole, Alex	March 29, 1905	C 89	McKenzie, John R	Oct. 12, 1904	C 40
Barclay, Andrew	April 27, 1904	C 19	McKinnon, Arch'd	April 3, 1905	C 102
Barclay, James	April 27, 1904	C 20	McMillan, Peter	March 29, 1905	C 94
Barclay, John	April 17, 1905	C 111	McMurtrie, John	March 29, 1905	C 96
Bickle, Thos	Oct. 11, 1904	C 37	Moore, Wm. H	June 17, 1905	C 119
Bowie, James	May 13, 1905	C 116	Morris, John	Dec. 27, 1904	C 57
Briscoe, Edward	Oct. 10, 1906	C 129	Myles, Walter	April 3, 1905	C 100
Campbell, Dan	March 29, 1905	C 93	Nash, Isaac	June 1, 1904	C 120
Carr, Jos. E	Oct. 11, 1904	C 36	Neave, Wm	Oct. 12, 1904	C 43
Carroll, Harry	March 29, 1905	C 98	Nelson, James	April 27, 1904	C 16
Clarkson, Alexander	April 27, 1904	C 18	Newton, John	Oct. 12, 1904	C 39
Collishaw, John	Feb. 7, 1905	C 68	Nimmo, Jas. P	April 3, 1905	C 103
Comb, John	March 23, 1904	C 2	Nimmo, Richard E	April 18, 1911	C 133
Cosier, Wm	March 29, 1905	C 86	O'Brien, Geo	Feb. 6, 1905	C 66
Courtney, A. W	Nov. 2, 1904	C 45	Pearse, Thomas W. H	April 14, 1916	C 138
Crawford, Frank	April 6, 1904	C 7	Perrie, Jas	March 15, 1905	C 81
Daniels, David	April 27, 1904	C 12	Perry, James	June 13, 1904	C 27
Davidson, David	April 3, 1905	C 106	Price, Jas	Nov. 8, 1904	C 50
Davidson, John	March 29, 1905	C 87	Rafter, Wm	March 29, 1905	C 95
Devlin, Henry	Oct. 12, 1904	C 41	Reid, Thos	Nov. 3, 1904	C 47
Dobbie, John	Nov. 27, 1905	C 126	Reid, James	March 23, 1904	C 1
Dudley, James	March 22, 1905	C 114	Richards, Thos	April 27, 1904	C 14
Duncan, Thomas	Aug. 29, 1906	C 128	Ross, John	April 3, 1905	C 101
Dunlap, Henry	Nov. 21, 1904	C 51	Roughead, George	Jan. 30, 1907	C 130
Dunn, Geo	Dec. 19, 1904	C 56	Ryan, John	Dec. 28, 1904	C 59
Dunsmuir, John	March 29, 1905	C 90	Sanders, John W	April 3, 1905	C 107
Eccleston, Wm	March 15, 1905	C 80	Shenton, Thos. J	July 25, 1904	C 30
Fagan, David	April 6, 1905	C 109	Shepherd, Henry	June 13, 1904	C 26
Farquharson, John	April 27, 1904	C 17	Smith, Geo	March 29, 1905	C 84
Findlayson, James	June 6, 1904	C 25	Somerville, Alex	March 24, 1904	C 3
Fulton, Hugh T	April 3, 1905	C 105	Stauss, Chas. F	Feb. 9, 1905	C 69
Gibson, Edward	May 30, 1905	C 118	Steele, Jas	March 29, 1905	C 92
Gilchrist, Wm	March 29, 1905	C 85	Steele, John	June 4, 1913	C 4
Gillespie, Hugh	April 6, 1904	C 8	Stewart, Duncan H	March 28, 1904	C 137
Gillespie, John	April 6, 1904	C 5	Stewart, John	April 3, 1904	C 104
Gould, Alfred	April 17, 1906	C 112	Stewart, Daniel W	May 16, 1904	C 23
Green, Francis	Oct. 11, 1904	C 38	Stoddart, Jacob	Feb. 21, 1905	C 73
Handlen, Jas	June 16, 1904	C 122	Strachan, Robt	April 27, 1904	C 15
Harmison, Wm	Feb. 3, 1905	C 65	Strang, James	April 27, 1904	C 10
Hescott, John	Jan. 16, 1905	C 62	Sullivan, John	July 4, 1916	C 139
Hoggan, Wm	June 6, 1911	C 134	Thomas, John	March 29, 1905	C 97
John, David	Nov. 8, 1904	C 49	Vass, Robt	Dec. 12, 1904	C 53
John, Evan	July 25, 1916	C 140*	Vater, Charles	April 6, 1904	C 66
Johnson, Geo	May 9, 1904	C 124	Webber, Chas	Sept. 13, 1904	C 32
Johnson, Wm. R	March 1, 1905	C 75	Webber, Charles F	Sept. 13, 1904	C 33
Jones, Evan	April 30, 1913	C 136	Whiting, Geo	May 29, 1905	C 117
Kerr, Wm	March 29, 1905	C 91	Wilson, Austin	Feb. 7, 1905	C 67
Lander, Frank	Jan. 9, 1905	C 61	Wilson, Thos	April 27, 1904	C 11
Lanfear, Herbert	Jan. 27, 1905	C 63	Woodburn, Moses	March 29, 1905	C 83
Lewis, Thos	Oct. 11, 1904	C 35	Yarrow, Geo	Nov. 3, 1904	C 46
Malpass, James	Nov. 7, 1904	C 113			

* Issued in lieu of No. C 132, lost.

INSPECTION OF METALLIFEROUS MINES.

WEST KOOTENAY AND BOUNDARY DISTRICTS.

REPORT OF JAMES McGREGOR, INSPECTOR.

I have the honour to submit my annual report as Inspector of Metalliferous Mines for West Kootenay and Boundary Districts for the year 1917.

LARDEAU DISTRICT.

During the past year there has been some improvement in mining in this district; a few properties along the line of the Canadian Pacific Railway east of Revelstoke which have been closed for years have been reopened and shipments made to the smelter. In addition, development-work has been systematically followed, especially during the summer months.

In other portions of this district, near Ferguson, Trout Lake, and Duncan river, some small shipments have been made from the many properties under development, and prospecting is still active in parts. H. H. Johnstone, Inspector of Mines, who made several inspections of the operating mines, reports that the requirements of the "Metalliferous Mines Inspection Act" are being fully carried out.

AINSWORTH DISTRICT.

Mining and prospecting have been fairly active during the year in this district, excepting the first two months, when mining was delayed owing to severe frost closing off the water-supply to some extent both for milling and power purposes. Considerable development has been carried on, with promising results.

Upon inspections made of these properties I have found them in safe condition, especially where they require close timbering, and the ladder-ways, travelling-ways, and machinery have received the necessary attention to keep them in good repair.

SLOCAN DISTRICT.

This has been one of the most successful years in mining in this district, notwithstanding the shortage, for the first two months, of water for milling and power purposes; the same conditions existed in all sections of this part of the Division. More workmen were employed last year than at any previous time, and although the smelter at Trail, at which the greater amount of the products of this district is treated, was closed for several weeks at the end of the year, the mines with very few exceptions continued to operate on development.

Many new properties have been opened up, some of which shipped for the first time, and the older properties have been continuously prospected and developed with increased energy. When these mines have been inspected by myself or Mr. Johnstone we have found them complying with the requirements of the "Metalliferous Mines Inspection Act."

YMIR DISTRICT.

There has been no important change to report in the mining situation in this section, there being only one mine in operation, the *Yankee Girl*, which has been operated continuously, with an increased force during the last few months. I have always found upon inspection the requirements of the "Metalliferous Mines Inspection Act" adhered to.

SHEEP CREEK.

There is little or no improvement in the mining conditions to report from this district; the previously largest gold-producer, the *Queen* mine, has been closed during the whole year. The only other mine in the district which has been operated continuously is the *Emerald*, a silver-lead producer, while the *Second Relief* was operated intermittently. These mines when inspected have been found in a safe and clean condition.

Trail District.

The principal mines of this district are situated at Rossland. Owing largely to a shortage of coke at the smelter the mines were not operated continuously during the past year, not shipping much more than half-time. During the slack period a great many improvements have been accomplished, such as improving shafts, travelling-ways, ladder-ways, airways, and haulage-ways.

The movement in the deeper mines owing to pressure causing what are known as "air-blasts" has not been so active; no doubt the cessation of mining at intervals has assisted in this direction. In an endeavour to prevent or lessen this trouble some of the large worked-out stopes which will not close or cave are being filled with waste, which will no doubt be an improvement.

The disorganized conditions of work has cooled the enthusiasm in first-aid work which once existed in this district; but now that conditions are becoming normal again, an attempt will be made to revive the old-time desire to be up to date. The same careful system is carried on as in the past with regard to safety in every department in and around these mines and works.

Boundary District.

In this district, as in the Trail District, the shortage of coke at the smelters prevented the mines from operating continuously during the first half of the year, and not until the last few weeks has the shortage been overcome. The system of mining has not been changed since my last report. The mining is performed in the same careful manner as in the past, and vigilance is exercised in keeping airways, travelling-ways and haulage-ways in safe condition.

The explosives used in these mines, as in all others in the West Kootenay and Boundary Districts, are of the low-freezing type, which renders it safer to prepare for use, as it rarely has to be thawed before using. Appended is a list of the accidents which have occurred in and around the mines of the West Kootenay and Boundary Districts for the year 1917.

EAST KOOTENAY INSPECTION DISTRICT.

Report of Robert Strachan, Inspector.

I have the honour to submit my annual report as Inspector of Metalliferous Mines for the East Kootenay District during the year ending December 31st, 1917.

The inspections during the first eight months of the year were made by T. H. Williams, who resigned at the end of August.

The following mines were operated during the year, or some part of the same: *Sullivan*, at Kimberley, by the Canadian Consolidated Mining and Smelting Company, which also operated the lower portion of the *St. Eugene*, at Moyie, and has leased the upper portion to J. Taylor and associates; the *Burton*, at Elko; and the *Couverapee*, at Field.

Inspector Williams also made a visit to the *Paradise* mine, in the Windermere Mining Division, but, as there were no men at work in the mine, he made no inspection.

Only one accident was reported during the year, at the *Sullivan*, where a man was seriously injured by a trip of cars. Samples of mine-air were taken at the *Sullivan* mine, a list of which is attached; the conditions reflected were fairly good. At the *Sullivan* mine the conditions as to timbering and generally around the mine were very good. A long tunnel was driven during the year to tap the ore at depth; this tunnel is over 6,000 feet long and was very well ventilated by a small power-driven fan. Generally the "Metalliferous Mines Inspection Act" is very well complied with.

At the *St. Eugene* the present work is in recovering ore which could not successfully be mined with machines; this is taken out and sacked to be sent to the smelter. There is no machinery in use. The explosives are all kept in proper magazines, and the workmen and officials are all competent workmen.

At the *Burton* mine a small amount of development was accomplished during the year under the management of J. L. Parker. The work seemed to be very well done and the Act fairly well complied with. There is no machinery, all the work being done with hand-steel. The explosives used are Polar Ammonia Dynamite.

At the *Couverapee* mine during Mr. Williams's visit all the workmen, ten in number, were engaged on repairing the trail leading to the mine.

COAST INSPECTION DISTRICT.

REPORT OF JOHN NEWTON, INSPECTOR.

I have the honour to submit my annual report of the metalliferous mines in my inspectorate for the year ending December 31st, 1917.

Britannia. J. W. D. Moodie, general manager; E. J. Donohue, secretary-treasurer; E. P. Browning, general superintendent. The *Britannia* mine, the property of the Britannia Mining and Smelting Company, is situated on Howe sound, about twenty-eight miles from the city of Vancouver, and is reached by a daily steamship service. During the previous year a large amount of development-work has been done, both in the mine and to the surface plant.

Development-work.—Raises have been driven from the 500-foot level to the surface, making a large glory-hole of the whole mountain. Another glory-hole has been in operation for the last six months at what is called the 850-foot level, which is producing a large output of ore.

Connection from the 1,050-foot level through the mountain to what is called the *Empress* side of the South valley, making three connections through the mine to the South Valley side. Another connection has been made from the 1,200-foot level to one that was started from that on the 2,200-foot level.

A new bunk-house has been built on the *Empress* side to accommodate the workmen working in that part of the mine.

The new water-tunnels from the South valley to the Beach have all been completed, the water reaching the Beach about the month of October.

During my inspection of the mine I have always found it well ventilated and the mine worked on a safe basis. Any suggestion that I may have made for the safety of the workmen has been carried out immediately.

Marble Bay. This mine is situated in the Nanaimo District, with E. F. Eastman, managing director, in charge, and E. Stephens general superintendent. The company is operating on the 900- and 1,500-foot levels and a considerable amount of diamond-drilling has been done to prove the ore-bodies, with fairly satisfactory results.

When last I visited the mine I found it well ventilated and in a safe condition.

Machinery installed: One 10-drill Rand compressor; one 4-drill Ingersoll compressor; one Lidgerwood hoist; two return-tubular boilers, 84 and 96 horse-power respectively; one 10-k.w. generator.

Retriever Group. This group is situated on the west side of the island. A tunnel is in a distance of 300 feet. When I visited the mine only four men were working underground.

No other mines on this island were operating when I last visited the island.

NORTHERN INSPECTION DISTRICT.

REPORT OF J. H. MCMILLAN, INSPECTOR.

I have the honour to submit my second annual report as Inspector of Mines under the "Metalliferous Mines Inspection Act" for the Skeena, Omineca, Portland Canal, and Atlin Mining Divisions.

The mining industry of northern British Columbia during the past year has been exceptionally active and encouraging from a productive point of view. The larger operating mines have not only maintained a normal production, but in some cases have increased their output considerably, particularly the Granby Consolidated Mining, Smelting, and Power Company, Limited. The daily output of this mine is now around the 3,000-ton mark, and may now be classed as the largest producing copper-mine in the Province.

The labour question in this northern country is one that presents many difficulties from an operating point of view, and during the year considerable difficulty was experienced in getting sufficient labour to keep the mines running at capacity. The class of labour available was of a very mixed character, and it is gratifying to note that under such conditions the number of serious and fatal accidents have been very small as compared with previous years.

During the year the Belmont Surf Inlet Mines, Limited, operating on Princess Royal island, completed and put into operation its mill and flotation plant, and up to the present the results have been highly satisfactory.

The plant was built to handle 250 tons daily; however, the property is showing up so well that there is a possibility of additional machinery being installed to double the present production. This company is also developing the *Pugsley* property, which is a continuation of the same mineralized zone as that on which the *Surf Inlet* mine is located, and the development-work so far has been very encouraging.

The *Rocher Déboulé* mine, operating in the Hazelton district, has maintained a fair production during the year. Development-work on this property, particularly on the lower levels, has been carried on all year, with encouraging results.

The *Silver Standard* mine, also situated in the Hazelton district, operated more or less steadily during the entire year. The owners of this property are installing a Faust gravity concentrating plant and mill, also power plant, with the view of mining on a much larger scale than formerly.

The Telkwa coalfields are again receiving considerable attention from various quarters, and contain in places an excellent quality of steam and domestic coal.

The chief drawback to the opening-up of these coalfields at present is the problem of transportation. The fields that are of commercial value are in most cases from fourteen to forty miles from the trunk line of the Grand Trunk Pacific Railway and the intervening country mountainous, which would mean a high cost in railway-construction. The coafield is badly broken up in places and tilted beyond recognition. There are sections of this field on the higher plateaux that are of commercial value, and which have not been disturbed to as great an extent as the lower-lying portions.

The following are the principal operating mines and the districts in which they are located:—

Observatory Inlet.

Hidden Creek. This mine operated steadily during the entire year. The general conditions throughout the mine are satisfactory, and many new and novel features have been adopted for the purpose of reducing the number of accidents to a minimum. It is gratifying to be able to report that the efforts of the management in this respect have been very successful, and that the number of fatal and serious accidents during the year have been small as compared with previous years.

This mine has not only maintained its former output, but has increased it almost 100 per cent. by the installation of heavier rolling-stock on the 385-foot level, which is the main shipping-level from the mine to the crusher-bins. The entire track on this level has been relaid with 45-lb. steel, and the track-gauge increased from 24 inches to 36 inches. The new cars used on this level have a capacity of 140 cubic feet as against 75 cubic feet of the former cars, which have for the present been transferred to the upper levels. Two 12-ton Westinghouse motors have been installed on the 385-foot level, replacing the former 6-ton type.

The result of this additional equipment is that the production can be practically doubled without increasing the staff to any great extent, and on the whole the present haulage arrangements are a great improvement on the old system in so far as safety is concerned. The present output of the mine is around the 3,000-ton mark a day.

The system of mining is chiefly open-stope and glory-hole work, and the underground workings are becoming quite extensive. A departure from the open-stope system of mining is being made on the 385-foot level, and I understand the ore-bodies lying below this level will also be worked on the shrinkage system. This system will afford better and safer working conditions, and will greatly reduce the number of accidents due to falls of rock from the back and walls of the stopes. In this new system of mining bulldozing-chambers are provided and cut out of the solid rock, and are reached by separate manways from the main levels. The adoption of these chambers will do away with the antiquated and rather dangerous practice of bulldozing in the chutes on the shipping-levels.

Safety-first work has been vigorously pursued at this mine during the year, and it is gratifying to note the interest the employees are taking in the movement. The various officials of the company and heads of departments have taken a keen practical interest in the work, and there is no doubt whatever but that the co-operation of the management and employees in this respect has to a considerable extent contributed to the results achieved.

First-aid work has also been given some attention during the year; lectures were given by the local physicians throughout the year, and over forty men have secured certificates of competency in first aid to the injured. A number of first-aid stations have been installed both inside and outside of the mine, each containing the necessary materials for the treatment of any accidents that may occur in the vicinity.

A station in connection with mine-rescue work has also been built and equipped with several sets of up-to-date Draeger apparatus. Dudley Michell, the Government Instructor in first-aid work, visited the mine during the year, and examined several teams of men in mine-rescue work, all of which passed very successfully and secured diplomas,

Samples of the air of this mine were taken by me at various times during the year, and the analyses of these samples show that the mine atmosphere is in general comparatively free from injurious or explosive gases.

The old style of bunk-houses at this mine is now a thing of the past; each man has his own iron bedstead and mattress, and the rooms are kept in a strictly sanitary condition. The wash-house and dry at the mine are modern in every respect and are kept in an absolutely sanitary condition at all times.

Several new cottages and apartment blocks have been built at the mine for the convenience of the married employees, and are rented out at very reasonable rates, and have all the conveniences of the modern home.

The hospital at the mine is well equipped and a physician in attendance continually. The general hospital is situated at the beach; it is thoroughly up to date and governed by a highly proficient staff of nurses, with Dr. J. Broe in charge.

Quartz Point. This mine, operated by the Granby Company, is situated across the bay from the town of Anyox, and has been worked more or less continually during the entire year. The material mined is quartz, which is used exclusively at the smelter for fluxing purposes. The vein is opened up by a series of tunnels along the shore-line. The general system of mining is stope and pillar, and the output runs from 40 to 150 tons a shift.

The conditions throughout this mine are exceptionally good, the walls are strong and require little timbering, and the discipline appeared at all times to be excellent. The bunk-houses, etc., are comfortable and are kept in strict sanitary condition. Samples of the mine atmosphere were taken during the year, and analyses of these show the ventilation to be very good.

May Quartz-mine. This mine is situated at the head of Observatory inlet and is operated only during the summer months. The material mined is barren quartz, and, like the *Quartz Point* mine, the entire output is used for flux at the smelter. The vein is reached by a short tunnel, and has been drifted on for some distance on both sides. The system of mining is overhand stoping. The walls are exceptionally strong and require but little timbering.

The general conditions are very good and the sanitary requirements at the camp well looked after. Samples of the air of this mine were taken during the year, and analyses of these show the mine atmosphere to be exceptionally good.

Maple Bay. This mine is situated on Portland canal; it was operated more or less during the year, but was closed down temporarily during December on account of climatic conditions. The output of this mine is used also for flux at the smelter, and several shipments were made during the summer months.

The vein runs from 6 to 8 feet wide and dips at 45 degrees. The operations have been confined chiefly to drifting on the vein, the main tunnel being in slightly over 1,200 feet from the portal. Very little timbering is necessary.

The main tramway from the dock at the beach is 3,500 feet long and is operated by a 4-ton gas-driven locomotive. The ore is lowered from the mine to the tramway bins by a 12-horse-power American hoist, over a tramway 500 feet long and having an average grade of 25 per cent.

The equipment consists of one return-tubular boiler, 50 horse-power, with oil-burners attached, and an air-compressor of 450 cubic feet capacity. The general conditions are good and all buildings kept in a strictly sanitary condition.

Macy. This mine is situated near the head of Alice arm and consists chiefly of open-cut work. The material mined is barren quartz for fluxing purposes. The general conditions are all that could be desired, and the various rules

of the "Metalliferous Mines Inspection Act," in so far as operations are concerned, fully observed. The sanitary conditions are excellent.

During my various visits to the mines operated by the Granby Company I have at all times found the requirements of the "Metalliferous Mines Inspection Act" fully observed, and the daily reports as to the condition of the underground workings and machinery entered up to date.

Alice Arm District.

Dolly Varden. This mine, owned by the Dolly Varden Mines, Limited, is situated eighteen miles inland from the head of Alice arm, which branches off from Observatory inlet a few miles below Granby bay. The mine was operated more or less steadily during the year, the operations consisting chiefly of drifting on the Nos. 1, 2, 3, and 4 levels, which are now in 125, 400, 60, and 600 feet respectively. The Nos. 1, 2, and 4 levels are connected by raises for ventilation purposes, No. 3 tunnel being a new development.

No large shipments have as yet been made, the idea of the management being to get the mine into shape to produce a good tonnage as soon as the railway from tide-water to the mine is completed. This railway is now completed for nine miles.

Considerable diamond-drilling was done on the property during the summer, which has proved the ore-bodies to be very extensive and the values satisfactory. The chief metal content is silver.

It was expected the railway from tide-water to the mine would be completed during the year, but owing to a scarcity of labour, and difficulty in getting the necessary material, this was found to be impossible.

The management intended taking out some ore during the winter months by packing from the mine to the end of the steel, but these arrangements had also to be cancelled owing to the abnormal climatic conditions that prevailed in the district during the fall.

No additional machinery of note was installed during the year. The general conditions in and around the mine are satisfactory.

Molybdenite Co. Very little work has been done on this property during the year. At the present time the mine is closed down entirely.

Hazelton District.

Rocher Deboule. This mine is situated on the north side of Rocher Déboulé mountain and is reached by trail ten miles in from Skeena Crossing, a station on the Grand Trunk Railway. The mine was operated more or less steadily during the entire year. Development-work during the year on the main vein has not been as encouraging as was anticipated, but it is quite possible that the hopes of the management will yet be fully realized by further exploration. No new mining equipment of any kind has been installed during the year.

During the year one fatal accident occurred at this mine, due to some vein-filling sloughing away from the foot-wall of the No. 3 vein, 1,200-foot level, near the face of the drift. The accident in itself was very simple and could have been avoided had those in charge of the work in this drift paid a little closer attention to the condition of the walls. It appears to me to be a very difficult matter to get the foreign element employed in the mines of this northern country to fully appreciate the responsibilities, not only with regard to their personal safety, but their duty towards their fellows.

The general conditions in and around this mine are very good, and are fully in accord with the requirements of the "Metalliferous Mines Inspection Act." The reports as to the condition of the underground workings, etc., and machinery are entered up daily, and on my several visits were always entered to date.

Delta Copper Co. The property owned by this company is situated on the south side of Rocher Déboulé mountain. Operations during the year have been chiefly confined to construction-work. Considerable machinery and equipment has been taken in and partly installed. The company owns the *Delta* and *Highland Boy* groups of mineral claims, and did a little development on each during the year, from which two car-loads of ore was shipped out. The general conditions are very favourable, and the requirements of the "Metalliferous Mines Inspection Act" fully observed.

Silver Standard. This mine, which is situated on Glen mountain about seven miles from the town of New Hazelton, was operated steadily up till the end of July, when operations were temporarily suspended until such time as the new concentrator which is now under construction is completed.

A new power plant is being installed at the mine, consisting of one Chicago pneumatic air-compressor with a capacity of 350 cubic feet of air at 100 lb., driven by a 60-horse-power Atlas gas-engine. A Sullivan drill-sharpener has also been installed in the new blacksmith and machine shop built near the portal of the 250-foot tunnel, and new boarding and mess houses built to take care of 100 men. A 3½-ton Packard motor-truck has been purchased which will be used for conveying the ore from the mine to the mill, a distance of three miles. The company has made considerable improvements on the road leading from the mine to the mill, so that the truck may operate throughout the entire year. A water-conduit has been installed from a point on Two-mile creek to the mill, a distance of one mile.

New mess and boarding houses are being built at the mill camp, which is about five miles from New Hazelton; also ore-bunkers with a capacity of 600 tons. The mill being installed is the Faust gravity system, and consists of one 9 x 15 Champion ore-crusher, three sets 18 x 36 rolls, two sets of jigs, five-compartment rougher, six-compartment cleaner, three Faust type tables, together with settling-tanks, conveyors, classifiers, screens, etc. Provision is also being made for the installation of flotation-machines, which may be added later if found necessary.

Power for the mill will be supplied by a 75-horse-power return-tubular boiler, operating a 60-horse-power steam-engine. The entire plant will be completed by February.

The general conditions in and around this mine are excellent. Several samples of the mine-air were taken by me during the year, and in each case were found to be free from injurious gases. The provisions of the "Metalliferous Mines Inspection Act" are fully observed, and the daily reports as to the condition of the mine-workings and machinery entered to date. No serious accidents of any kind occurred at this mine during the year.

American Boy. This mine, owned by the Harris Mines, Limited, is situated on Nine-mile mountain, about nine miles from New Hazelton. Very little work has been done on the property during the year. The workings consist of an inclined shaft which has been sunk for a distance of 300 feet. Levels have been turned off at intervals from the shaft and drifted on for some distance on each side of the shaft. The general conditions are in accord with the requirements of the "Metalliferous Mines Inspection Act."

Hazelton View Group. This property, owned by the New Hazelton Gold-Cobalt Company, is situated on the north side of the Rocher Déboulé mountain, at an elevation slightly over 5,400 feet. The principal workings consist of an adit-tunnel which follows the vein for a distance of 700 feet. An aerial tramway has been installed on the property and extends from the portal of the tunnel to a point half a mile down the mountain. The ore is sacked at the mine and conveyed over this tramway, and later packed over trail to the Grand Trunk Railway, a distance of about five miles. The general conditions are all that could be desired and are in full accord with the requirements of the "Metalliferous Mines Inspection Act."

Cap Group. This property, owned by Denis Comeau and partners, was operated for a short time during the summer months and a little development done. At present the property is inactive. The general conditions are favourable and in accord with the requirements of the "Metalliferous Mines Inspection Act."

Golden Wonder. This mine, owned by D. Sutherland and associates, is situated on the north side of the Rocher Déboulé mountain and is reached by trail from Hazelton. An inclined shaft has been sunk for a distance of sixty feet. At the time of my visiting the property some open-cut work was also being done on another vein west of the shaft. The general conditions were satisfactory and in accord with the requirements of the "Metalliferous Mines Inspection Act."

COAST DISTRICT.

Surf Inlet. This mine is situated on Princess Royal island, about 150 miles from Prince Rupert, and is owned by the Belmont Surf Inlet Mines, Limited; W. F. Holler, superintendent. The best part of the year was taken up in the construction of the mill and flotation plant and the installation of other necessary machinery.

The entire plant was completed and put into operation in August, and since that time has been operating steadily with excellent results. The present mill capacity is 250 tons a day, but I understand that additional plant will be installed to handle twice the above tonnage.

The mine proper is in good shape, and the walls, generally speaking, are strong and require but little timbering, with the exception of one point where it will be necessary to square set. The system of mining is overhand stoping. The mine will be illuminated throughout with electricity and all haulage underground done by storage-battery locomotives. At the present time two 6-ton storage-battery locomotives are operating on the main shipping-level.

The mine-workings are in good condition, ventilation is also fair, and the general discipline satisfactory. The quarters for employees are very comfortable; the rooms are steam-heated and kept in a strictly sanitary condition. Recreation-rooms are also being provided and a number of cottages are being built. An up-to-date hospital is being built at the mine and will be supervised by competent nurses and a resident physician. The general conditions are entirely satisfactory, and with one or two exceptions the "Metalliferous Mines Inspection Act" has at all times been strictly observed. The daily reports as to the condition of the mine-workings and machinery are kept entered up to date.

The power plant at the mine consists of two Leonard return-tubular boilers, 50-horse-power each, and tested to 150 lb. a square inch, and one Ingersoll Rand air-compressor with a capacity of 1,200 cubic feet at 100 lb. per square inch, coupled to a 250-horse-power alternating-current motor. The entire plant is electrically operated, the power being conveyed from the power station situated near tide-water at the head of Surf inlet.

LIST OF ACCIDENTS IN METALLIFEROUS MINES, 1917.

REPORT BY JAMES McGREGOR, AND T. H. WILLIAMS, INSPECTORS.

No.	Mine.	Date.	Name.	Occupation.	Details.
1	Centre Star, Rossland..	Jan. 2	J. A. McLean.	Miner.....	Died on January 2nd, 1917, from injuries received on September 1st, 1916, caused from air-blast.
2	Utica, Kaslo	" 18	Otto Arvison..	Mucker.....	Struck by falling timber, causing ruptured kidney.
3	Utica, Kaslo	Feb. 2	G. Stedili....	Miner.....	Bruised and sprained back, caused by fall of rock.
4	Le Roi No. 2, Rossland.	" 18	W. J. Farney..	Compressor-[engineer	Amputation of left forearm, fractured right arm, caused by coming in contact with electric wires while cleaning machine, which rendered him unconscious.
5	Le Roi, Rossland	Mar. 14	Mike Notti....	Nipper.....	Fracture of skull; fatal. Presumed to have met with accident on turn-sheet.
6	Granby, Phoenix	" 31	A. Thomas....	Brakeman ..	Fractured fingers with laceration, caused by falling rock from chute.
7	Le Roi, Rossland	Apr. 14	A. L. Acorn...	Timberman..	Muscles of left arm severed, caused by falling rock.
8	Le Roi, Rossland	" 14	R. Bridgeman.	" ..	Muscles of right arm lacerated, caused by falling rock.
9	Sullivan, Kimberley....	May 14	Geo. B. Drury.	Miner	Crushed and dragged along with trip of cars, causing fracture of three ribs, right forearm, small umbilical hernia, extensive abrasions of back, arms, legs, and probable rupture of left kidney.
10	War Eagle, Rossland...	June 13	Robt. Gordon..	Motorman...	Burn on right shoulder, caused by electricity.
11	Florence, Ainsworth ..	" 18	Jas. Morkette.	Miner.....	Rock fell from hanging-wall, causing concussion of brain and broken leg; fatal.
12	Bluebell, Ainsworth ...	July 1	Louis Taidich .	"	Tops of three fingers of left hand taken off between hoisting rope and drum.
13	Bluebell, Ainsworth....	Aug. 30	Fred Paulson..	"	Killed by box of powder going off from unknown cause.
14	Bluebell, Ainsworth....	Aug. 30	F. Adamanti..	Mucker.....	Same accident as above; fatal.
15	Bluebell, Ainsworth....	" 30	N. Uzelac.....	Miner.	Same accident as above; fatal.
16	Motherlode, Greenwood	Sept. 25	Jas. Poggie....	"	Bruised toe, caused by falling rock.
17	Sovereign, Sandon.....	" 30	C. Cunningham	Manager....	Broken leg at ankle, caused by falling down ladder-way.
18	Bluebell, Ainsworth....	Oct. 9	C. Poly.	Mucker.....	Lacerated left hand, caused by rock rolling out of chute.
19	Yankee Girl, Ymir.....	" 10	Tom Mazura ..	"	Leg pinned under overturned car, causing bruised and cut ankle.
20	No. 1 Mine, Ainsworth.	" 17	Frank Dearin.	Labourer....	Head crushed by timber rolling off a wagon; fatal.
21	Granby, Phoenix	" 18	John Nerhus..	Miner	Killed by falling slab of rock.
22	Bluebell, Ainsworth....	" 21	H. Holmberg..	"	Scalp-wound, caused by falling rock.
23	Bell, Beaverdell	" 27	Chas. Oliver...	"	Bruises about head and body, caused by falling against timbers.
24	Bluebell, Ainsworth....	Nov. 9	Anthony Bolo.	"	Bruised hip by being caught between skip and timbers.
25	Le Roi No. 2, Rossland.	" 14	Wm. Jones....	"	Badly shaken up by drilling into missed-fire shot, which exploded.
26	Le Roi No. 2, Rossland.	" 14	John Tomich..	"	Badly injured in all parts of body, with eyesight in danger of loss. Same accident as above.
27	Bell, Beaverdell	" 27	John Larson ..	Tool-[sharpener	Bruises to chest, caused by falling off a skid.
28	Hewitt, Silverton	Dec. 10	E. Stathis.....	Mucker	Fell down raise, sustaining fractured base of skull; fatal.

Report by Robert Strachan and James McGregor, Similkameen District.

29	Iron Mask, Kamloops..	Jan.	13	Joseph Moore.	Diamond-[drill helper	Neck and back broken between skip and foot-wall plates of shaft; fatal.
30	Nickel Plate, Hedley...	Mar.	25	Lemuel Fife...	Miner	Drilled into unexploded powder in hole; fatal.
31	Nickel Plate, Hedley...	Mar.	25	Daniel Rankin.	"	Same accident as above; fatal.
32	Horn Silver, Similka-meen	July	10	C. L. Condit ..	"	Severe cuts on head, back, and legs, caused by falling rock.
33	Nickel Plate, Hedley...	Nov.	28	Mike Iverich..	Nipper.....	Severe injuries about head and face, caused by being dragged by broken cable after a runaway.

Report by John Newton and J. H. McMillan, Coast District.

34	Hidden Creek, Anyox..	Feb.	9	Mike Radeka..	Miner	Killed by falling rock from back of stope.
35	Hidden Creek, Anyox..	"	16	F. Armstrong .	"	Carried through grizzly and into pocket, causing severe laceration of scalp and badly broken forearm.
36	Britannia.....	May	19	Alex. Basero..	Mucker	Large scalp-wound and back injured by falling rock.
37	Britannia.....	"	25	Wm. Vyse....	"	Fractured left femur, bridge of nose, left cheek-bone, laceration of head and hands, caused by powder going off.
38	Britannia.....	"	30	Carl Olson	Miner.....	Fell through grizzly to chute below, with fatal results.
39	Marble Bay, Vananda..	"	31	J. Burghiner..	"	Rock fell from back, causing a scalp-wound.
40	May-Beatrice, Anyox ..	June	21	Nick Gullune..	Labourer....	Skull fractured by fall of rock; fatal.
41	Hidden Creek, Anyox..	July	11	P. A. Gustafson	Brakeman ..	Crushed between end of car and side of chute; fatal.
42	Britannia.....	"	31	James McDade	Skip-tender .	Right ankle fractured between car and rail on skip.
43	Coast Copper Co. Quat-sino	Aug.	12	David Spooner	Miner.....	Foot crushed between end of skip and floor.
44	Rocher Déboulé, Hazel-ton	"	20	John Lepetech	"	Killed by falling rock from hanging-wall.
45	Britannia.....	"	20	B. Tonelli	"	Loss of thumb and first finger of left hand, caused by attempting to remove unexploded cap from fuse.
46	Marble Bay, Vananda..	Dec.	5	R. J. Hazard..	"	Bruises on body, caused by drilling into unexploded powder.
47	Surf Inlet.....	"	7	Otto Harditkka	Mucker.....	Rock fell from roof, causing scalp-wound and bruises.
48	Hidden Creek, Anyox..	"	12	Joe Tokoff....	Crusher-bar-[man	Corneal laceration, caused by drilling into unexploded powder.

TABULATED LIST OF ACCIDENTS IN METALLIFEROUS MINES, 1917.

	Cause of Accident.	Extent of Injury.			
		Fatal.	Serious.	Slight.	Total.
A	Blasting	3	..	1	4
B	Defective powder	..	..	..	..
C	Drilling into old holes containing powder	2	2	1	5
D	Powder in muck	..	1	..	1
E	Shafts and cages, accidents connected with	1	1	2	4
F	Falling down shafts, stopes or winzes	1	1	2	4
G	Falling down chutes	1	..	..	1
H	Mine-cars	1	2	1	4
I	Rock falling in stopes, levels, etc	5	..	5	10
J	Rock falling down chutes or openings	1	3	2	6
K	Timbering	..	1	..	1
L	Miscellaneous, underground	1	..	2	3
M	Miscellaneous, surface	1	1	3	5
	Totals	17	12	19	48
	Accidents for each 100,000 tons ore mined	0.615	0.434	0.688	1.737
	Accidents for each 1,000 men employed	3.1	2.2	3.5	8.8

COAL-MINING IN BRITISH COLUMBIA.

By Wm. Fleet Robertson, Provincial Mineralogist.

During the year 1917 there was mined in the various collieries of the Province 2,398,715 tons (2,240 lb.) of coal, a decrease from the preceding year of 86,865 tons, equivalent to nearly 3.1 per cent.

While the total figures for the Province thus show a decrease, this is wholly attributable to a diminished production in the Crowsnest District—a decrease of 330,519 tons, which more than absorbed increases of 202,960 tons in the Vancouver Island District and of 40,694 tons in the Nicola-Princeton District.

The Crowsnest District in 1917 was still suffering from the "bumps" and explosions of the previous year, and again in 1917 was the scene of another explosion in April, all of which seriously curtailed the output of the Crow's Nest Pass Coal Company.

In addition to this, the scarcity of labour, together with labour troubles both at the collieries and smelters, reduced the output of coke by nearly 40 per cent.

The following table shows, for the past ten years, the output and the *per capita* production of the various districts:—

Output and Per Capita Production of Various Districts.

Year.	District.	Gross Tons of Coal mined during Year.	Total No. of Employees at Producing Collieries.	Tons of Coal mined per Employee for Year.	Number of Men employed Underground in Producing Collieries.	Tons of Coal mined per Underground Employee for Year.
1908	East Kootenay District	883,205	2,524	350	1,746	506
	Coast District	1,226,182	3,549	345	2,686	456
	Whole Province	2,109,387	6,073	347	4,432	476
1909	East Kootenay District	923,865	2,427	380	1,737	532
	Coast District	1,476,735	3,991	370	2,976	496
	Whole Province	2,400,600	6,418	374	4,713	509
1910	East Kootenay District	1,365,119	3,111	439	2,374	575
	Coast District	1,774,116	4,647	382	3,529	502
	Whole Province	3,139,235	7,758	404	5,903	532
1911	East Kootenay District	442,057	2,197	201	1,585	272
	Coast District	1,855,661	4,676	397	3,627	511
	Whole Province	2,297,718	6,873	334	5,212	440
1912	East Kootenay District	1,261,212	2,410	523	1,780	708
	Coast District	1,764,497	4,720	374	3,495	504
	Whole Province	3,025,709	7,130	424	5,275	574
1913	East Kootenay District	1,331,725	2,666	500	1,965	678
	Coast District	1,239,035	3,777	328	2,865	433
	Whole Province	2,570,760	6,443	399	4,830	532
1914	East Kootenay District	955,183	2,397	399	1,749	547
	Coast District	1,211,245	3,335	363	2,518	481
	Whole Province	2,166,428	5,732	379	4,267	508
1915	East Kootenay District	852,572	1,748	488	1,183	721
	Coast District	1,120,008	3,230	347	2,512	446
	Whole Province	1,972,580	4,978	396	3,695	534
1916	East Kootenay District	882,270	1,674	527	1,125	784
	Coast District	1,603,310	3,386	474	2,569	624
	Whole Province	2,485,580	5,060	491	3,694	673
1917	East Kootenay District	551,751	1,481	372	944	584
	Coast District	1,846,964	3,689	501	2,816	656
	Whole Province	2,398,715	5,170	463	3,760	638

While no figures can be given as to the actual cost of mining in the different fields, the *per capita* production of these fields is of interest, as having a bearing upon the working costs and as indicating the mining facilities existing and the improvement made in these conditions from year to year.

It will be seen from the foregoing table that the production *per capita* increased more or less regularly up to the year 1912, but that the years 1913, 1914, and 1915 show a decrease, especially in the Coast District. This decreased effectiveness, during the last few years, of the labour employed is largely due to the extension of the workings of the mines, causing a greater length of haulage and greater extent of old workings to be taken care of, but some of the increased labour is undoubtedly on account of the greater number of men employed in safeguarding the mine and workmen. In the year 1917 it will be observed that while the *per capita* output of the Coast collieries also shows an increase, the Crowsnest District shows a very considerable decrease, which is caused by the fact that a large amount of the underground labour in these collieries is engaged in non-productive work, such as repairing the damage from the former explosion and in opening up a new system of mining which it is expected will tend to greater safety of employees and also of the property.

The market of the East Kootenay field is provided primarily by the railways of the south-eastern part of the Province and of the northern parts of the adjoining States of Montana and Washington, approximately three-quarters of the coal, sold as such, being exported to those States, while the remainder went to supply the demands of the south-eastern part of the Province—its domestic needs, its railways, steamboats, mines, and smelters. The competition of fuel-oil, frequently referred to in the past, has diminished and promises to practically cease, as supply of oil is scarcely attainable now, and even then only at a price which is not competitive with coal.

Coke, a product of the coal-mines, is sold in the same markets, with the difference that the local consumption—chiefly by the smelters of Trail and the Boundary District—took about 90 per cent. of the product, while 10 per cent. was exported to the States mentioned.

As regards the marketing conditions in this field, the East Kootenay collieries are, however, brought into direct competition with the collieries of Alberta, just over the Provincial boundary-line, all these collieries being in the same coalfield, with practically the same grade of coal and working under similar conditions. Owing to war conditions the operation of all the collieries in the Crowsnest field, in Alberta and British Columbia, has been placed under the control of a Commissioner—W. H. Armstrong—appointed by the Federal Government.

The Coast District may be subdivided into two fields—the Nicola-Princeton field and the Vancouver Island field—in which the markets differ considerably.

In the former field the consumption is chiefly by the local railways, while a small amount finds its way to Vancouver, even under the handicap of what seems to be an excessively high freight charge.

The Vancouver Island coal market is provided by the domestic and manufacturing requirements of the Coast cities, and of the ocean-going steamers calling at these ports.

The larger coasting steamers and railways, which in later years have all been using California crude oil as fuel, will now be forced to come back to the use of coal, which will mean a largely increased production from Coast collieries.

As in former years, the greater proportion of the coal production was made by three larger companies—the Crow's Nest Pass Coal Company, with two collieries in East Kootenay; and by the Western Fuel Company, of Nanaimo, and the Canadian Collieries (Dunsmuir), Limited (formerly the Wellington Colliery Company), these last two operating on Vancouver Island.

In addition to these large collieries, shipments have been made by the Corbin Coal and Coke Company, in East Kootenay; by the Middlesboro Collieries, the Inland Coal and Coke Company, and the Pacific Coast Coal Syndicate, all of the Nicola Valley; by the Princeton Coal and Land Company, of Princeton; and by the Pacific Coal Mines, Limited, and Vancouver & Nanaimo Coal Mining Company, both operating on Vancouver Island, near Nanaimo.

The details of the shipments made by each of these companies will be found in reports of the Inspectors of the various districts.

During the year 1917 about half of the coal, sold as such by the collieries of the Province, was consumed in British Columbia; and the remaining half was exported to the United States, including Alaska. Of the coke sold, about 90 per cent. was consumed in British Columbia, and the remaining 10 per cent. was exported to the United States.

The distribution of this output of coal and coke is shown in the following table:—

COAL AND COKE PRODUCED, EXPORTED, ETC., BY PROVINCE DURING YEAR 1917.

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	935,469		147,811	
" export to United States	754,568		12,711	
" " other countries	38,211			
Total sales		1,728,248		160,522
Lost in washing	226,430			
Used in making coke	248,740			
Used under colliery boilers, etc.	198,102		117	
Total for colliery use		673,272		117
		2,401,520		160,639
Stocks on hand first of year	15,500		3,681	
" last of year	12,695		2,947	
Difference taken from stock during year		2,805		734
Output of collieries for year		2,398,715		159,905

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	157		111		268	
Whites—Miners	1,723				1,723	
Miners' helpers	80				80	
Labourers	924		353		1,277	
Mechanics and skilled labour	435		384		819	
Boys	77		72		149	
Japanese—Miners	97				97	
" Labourers			15		15	
Chinese—Miners	263				263	
" Labourers			375		375	
Indians	4				4	
Totals	3,760		1,410		5,170	

COLLIERIES OF THE COAST DISTRICT.

The gross output of the Coast collieries, including the Nicola valley, for the year 1917 was 1,846,964 tons (of 2,240 lb.) of coal actually mined, while some 2,811 tons was taken from "stock," making the actual consumption of coal 1,849,775 tons.

Of this gross consumption 1,428,604 tons was sold as coal, 140,452 tons was consumed by the producing companies as fuel, and 226,430 tons was lost in washing; while 54,289 tons was used in making coke.

Formerly, in 1902, the Coast collieries exported to the United States 75 per cent. of their coal; in 1910 they exported thereto only 24.5 per cent. of their product, 71.3 per cent. of the output being consumed in Canada. In 1911, 76.1 per cent. of the coal sold was for consumption in Canada, 21.6 per cent. was exported to the United States, and 2.3 per cent. to other countries.

In 1912, 71.25 per cent. was sold for consumption in Canada, 21.25 per cent. exported to the United States, and 7.47 per cent. to other countries.

In 1913, 89.8 per cent. was sold for consumption in Canada, and the balance, or 10.2 per cent., was exported to the United States.

In 1914, 77.3 per cent. was sold for consumption in Canada, and the balance, or 22.7 per cent., was exported to the United States.

In 1915, 67 per cent. was sold for consumption in Canada, and the balance, or 33 per cent., was exported to the United States.

In 1916, 63 per cent. was sold for consumption in Canada, and the balance, or 37 per cent., was exported to the United States.

In 1917, 60 per cent. was sold for consumption in Canada, 37 per cent. exported to the United States, and 3 per cent. to other countries.

The following table gives an aggregate summary of the output of the Coast collieries for the year 1917, and shows the disposition made of such product:—

Sales and Output for Year.	Coal.		Coke.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	861,672		31,559	
" export to United States	528,721			
" " other countries	38,211			
Total sales		1,428,604		31,559
Lost in washing	226,430			
Used in making coke	54,289			
Used under colliery boilers, etc.	140,452		117	
Total for colliery use		421,171		117
		1,849,775		31,676
Stocks on hand first of year	15,442		2,743	
" last of year	12,631		1,473	
Difference taken from stock during year		2,811		1,270
Output of collieries for year		1,846,964		30,406

Number of Hands employed, Daily Wages paid, etc.

Character of Labour.	Underground.		Above Ground.		Totals.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	109		88		197	
Whites—Miners	1,234				1,234	
Miners' helpers	76				76	
Labourers	798		114		912	
Mechanics and skilled labour	172		234		406	
Boys	63		47		110	
Japanese—Miners	97				97	
" Labourers			15		15	
Chinese—Miners	263				263	
" Labourers			375		375	
Indians	4				4	
Totals	2,816		873		3,689	

The following tables show the output of coal and the disposition made of it in the sub-divisions of the Coast District:—

COAL-OUTPUT, ETC., 1917, VANCOUVER ISLAND SUB-DISTRICT.

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	736,580		31,559	
" export to United States	514,908			
" " other countries	38,211			
Total sales		1,289,699		31,559
Lost in washing	224,878			
Used in making coke	54,289			
" under colliery boilers, etc	129,522		117	
Total for colliery use		408,689		117
		1,698,388		31,676
Stocks on hand first of year	14,948		2,743	
" last of year	12,281		1,473	
Difference taken from stock during year		2,667		1,270
Output of collieries for year		1,695,721		30,406

COAL-OUTPUT, ETC., 1917, NICOLA-PRINCETON SUB-DISTRICT.

SALES AND OUTPUT FOR YEAR	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	125,092			
" export to United States	13,813			
Total sales		138,905		
Lost in washing	1,552			
Used in making coke				
" under colliery boilers, etc	10,930			
Total for colliery use		12,482		
		151,387		
Stocks on hand first of year	494			
" last of year	350			
Difference taken from stock during year		144		
Output of collieries for year		151,243		

COLLIERIES OF THE EAST KOOTENAY DISTRICT.

The gross output of the collieries of the East Kootenay District for the year 1917 was 551,751 tons (2,240 lb.) of coal actually mined, while 6 tons was added to stock, making the actual consumption of coal 551,745 tons. Of this gross consumption of coal, 299,644 tons was sold as coal, 57,650 tons was consumed as fuel by the producing companies, while 194,451 tons was converted into coke, producing 129,499 tons of coke, while 536 tons was added to stock, making the coke sales for the year 128,963 tons.

The East Kootenay collieries exported to the United States about 75 per cent. of the coal sold and about 10 per cent. of the coke.

The following table gives an aggregate summary of the output of the East Kootenay collieries for the year 1917 and shows the dispositions made of such product:—

Sales and Output for Year.	Coal.		Coke.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	73,797		116,252	
" export to United States	225,847		12,711	
" " other countries				
Total sales		299,644		128,963
Used in making coke	194,451			
Used under colliery boilers, etc.	57,650			
Total for colliery use		252,101		
		551,745		
Stocks on hand first of year	58		938	
" last of year	64		1,474	
Difference added to stock during year		6		536
Output of collieries for year		551,751		129,499

Number of Hands employed, Daily Wages paid, etc.

Character of Labour.	Underground.		Above Ground.		Totals.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	48		23		71	
Whites—Miners	489				489	
Miners' helpers	4				4	
Labourers	126		239		365	
Mechanics and skilled labour	263		150		413	
Boys	14		25		39	
Japanese						
Chinese						
Indians						
Totals	944		437		1,381	

INSPECTION OF COAL MINES, 1917.

The coal-producing areas of the Province are divided into the Coast District, which included the Vancouver Island and the Nicola-Princeton coalfields, and the East Kootenay District.

COAST DISTRICT.

This district, comprising, as it does, the coalfields of Vancouver island and the Coast, as well as those of the Nicola and Similkameen valleys, has been subdivided, for inspection purposes, into three Inspection Districts, each under the charge of a District Inspector.

The headquarters of the Inspectors of the Inspection Districts is at Nanaimo, which permits of one of the Inspectors being constantly at headquarters while the other is making inspections; it also permits of the interchanging of inspection duties, so that each Inspector knows both districts.

NANAIMO INSPECTION DISTRICT.

John Newton, Inspector (Office, Nanaimo).

The collieries operating and producing coal during the year in this Inspection District, including the new mines that have been started, were:—

Nanaimo: The Western Fuel Company—No. 1 shaft, Protection shaft, and No. 4 shaft, Northfield mine, and Reserve Colliery.

Extension: The Canadian Collieries (Dunsmuir), Limited (formerly the Wellington Colliery Company)—Nos. 1, 2, and 3 mines, all worked from what is known as the No. 1 tunnel, and No. 4 mine, worked by a shaft.

Pacific Coast Coal Mines, Limited—Fiddick Colliery, South Wellington, Cranberry District, Nos. 1 and 2 slopes, and the new shafts at the Morden mine.

Vancouver-Nanaimo Coal Mining Company, Limited—New East Wellington Colliery, Mountain District, Nanaimo, No. 1 slope.

COMOX INSPECTION DISTRICT.

Henry Devlin, Inspector (Office, Nanaimo).

The collieries operating and producing coal during the year in this Inspection District, including the new mines that have been started, were:—

Cumberland: The Canadian Collieries (Dunsmuir), Limited—Nos. 4 and 7 slopes, and Nos. 5 and 6 shafts, and two new shafts at No. 8.

Pacific Coast Coal Mines, Limited—Suquash Colliery, Nos. 1 and 2 slopes, and shaft.

NICOLA-PRINCETON INSPECTION DISTRICT.

John Newton, Inspector (Office, Nanaimo).

Owing to the resignation of the two Inspectors in the East Kootenay District, the Inspector of this district was moved to Fernie, and the district is being at least temporarily inspected by John Newton from the Nanaimo office.

The collieries operating during the year in this Inspection District, including the new mines that have been started, were:—

Nicola Valley: The Middlesboro Colliery of the Middlesboro Collieries, Limited, Merritt—Nos. 2, 3, 4, 5, 6, and 7 mines.

Inland Coal and Coke Syndicate, Merritt—One shaft and 3 slopes.

Diamond Vale Colliery Company, Merritt—No. 3 mine.

Pacific Coast Colliery Company, Merritt—No. 1 slope and No. 2 shaft, adjoining the Middlesboro Colliery.

Princeton: Princeton Coal and Land Company's Princeton Colliery—No. 1 slope.

United Empire Mining Company—One adit-tunnel.

Coalmont: Coalmont Collieries, Limited—Developing only.

Midway: Boundary Mining and Exploration Company—Developing only.

EAST KOOTENAY DISTRICT.

The East Kootenay District is subdivided into two Inspection Districts—i.e., Northern Inspection District and Southern Inspection District. Both these districts are inspected by Robert Strachan as Senior Inspector and Mr. Lancaster, Inspector with headquarters at the Mine-rescue Station at Fernie.

NANAIMO INSPECTION DISTRICT.

REPORT OF JOHN NEWTON, INSPECTOR.

I have the honour to submit my annual report for the year ending December 31st, 1917, on the various coal-mines in my inspectorate, consisting of the Western Fuel Company, Pacific Coast Coal Mines, Nanoose, and British Columbia Collieries.

A short description is given of each colliery in this district, with the names of certificated officials.

RESCUE AND FIRST-AID WORK.

I am pleased to say that the interest in this work mentioned in my last report has been maintained. All the mines in the district have a number of fully efficient men and equipment ready for any emergency.

The Government station, with J. D. Stewart in charge, which is in a central position, is always ready to meet any demands that can be made upon it.

During the year samples of mine-air have been taken in each and every split, every return airway, and in every mine in my inspectorate. Copies of same have been forwarded to your Department.

The Western Fuel Company.

Head Office—San Francisco, Cal.

Capital, $1,500,000.

Officers.	*Address.*
C. P. Heaton, President,	San. Francisco, Cal.
T. E. Pollock, Chairman,	San. Francisco, Cal.
R. R. Pollock, Vice-Chairman,	San. Francisco, Cal.
D. C. Norcross, Secretary,	San. Francisco, Cal.
G. B. Bowen, General Manager,	Nanaimo, B.C.
John Hunt, General Superintendent,	Nanaimo, B.C.
T. R. Jackson, Mine Manager, No. 1 Mine,	Nanaimo, B.C.
James Dickenson, Mine Manager, Reserve Mine,	Nanaimo, B.C.
Richard Battey, Harewood Mine,	Nanaimo, B.C.

The above company has operated the following collieries at Nanaimo during the past year, namely: No. 1 or Esplanade shaft, Nanaimo; Protection Island mine, Harewood, and Reserve.

The following returns show the combined output of all the company's mines for the past year:—

Aggregate Returns from Western Fuel Company's Mines for Year 1917.

Sales and Output for Year.	Coal.		Coke.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	240,961			
" export to United States	329,059			
" " other countries				
Total sales		570,020		
Lost in washing	20,000			
Used under colliery boilers, etc.	67,957			
Total for colliery use		87,957		
		657,977		
Stocks on hand first of year	7,558			
" last of year	8,008			
Difference added to stock during year		450		
Output of collieries for year		658,427		

Number of Hands employed, Daily Wages paid, etc.

Character of Labour.	Underground.		Above Ground.		Totals.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	32		20		52	
Whites—Miners	454				454	
Miners' helpers	22				22	
Labourers	299		30		329	
Mechanics and skilled labour	103		91		194	
Boys	58		30		88	
Japanese						
Chinese—Labourers			156		156	
Indians						
Totals	968		327		1,295	

No. 1 mine of the Western Fuel Company is situated at the south end of the Esplanade, in the city of Nanaimo, and has been in operation for many years, with good prospects for many years to come.

The present operations are at a depth of 600 to 1,000 feet below the surface, with a large submarine area. This shaft has three openings—namely, the No. 1 hoisting-shaft, Protection shaft, and Newcastle Island shaft. These shafts are all connected by good travelling-roads, and are all equipped by hoisting apparatus in case of emergency.

The general operations of the mine as far as development-work is concerned are identical to my report of 1916, with the exception of the new rock tunnel mentioned in that report. This tunnel has been completed. Operation begins at the head of No. 3 slope and extends across the measures for a distance of 700 feet on a 2-per-cent. grade; area of same, 7 x 12 feet in the clear. The work has greatly facilitated the handling of coal from this district.

PROPOSED NEW WORK.

A new Prescott pump has been installed, with a capacity of 700 gallons a minute, alongside the other pump of the same make and dimensions. Another turbine-pump has been installed on what is called No. 3 level, with a capacity of 450 gallons a minute.

It is proposed to abandon the endless-rope system of haulage and adopt the direct haulage from the Diagonal slope, making the Diagonal engine haul direct to the shaft bottom, a distance of 4,000 feet. When this work at the head of the slope and shaft-bottom is completed to suit the arrangements set forth, the workmen working on the South side of the mine will be conveyed to and from their work in special cars provided with special safety appliances.

Early in 1918 two shafts are to be sunk on what is known as the Five-acres District, West Nanaimo. These shafts are to tap the Wellington seam at a depth of approximately 300 feet. Present boreholes on this property show good coal; further drilling operations are to be pushed to determine elevations and extent of coalfield.

Early in 1918 (January) it is the intention to pump out the New Douglas slope, so that connections can be made with the Old Chase River mine to enable the extraction of pillars from same.

During the year the company has introduced the Edison electric head-lamps, mostly to drivers, pushers, trackmen, and timbermen, which has greatly reduced the number of accidents to men following this kind of work, and it is the intention to eliminate all open lights in all the mines operating under their jurisdiction. Number of lamps in use at the present time, 230 Edison head-lamps, 45 Wico, and 20 Ceag.

In addition to all these improvements towards "safety first," the company has erected dust-zones in all the intake and return airways; also two men constantly on the night shift, watering all roadways and working-places. There is also a line of water-pipes all along the main and tail haulage-roads, with sprays at intervals—two at the foot of the Diagonal slope, one at the foot of the Right incline, and two on the bull-wheel siding. A boy is stationed on an elevated platform at the outside end of this siding with a hose attached from the discharge-pump and sprays all the trips as they are passing outside.

MINE-RESCUE WORK.

Regarding this branch of work, I am pleased to be able to report that some of the companies in my district, especially the Western Fuel Company, have taken this work up in a manner which reflects great credit to both managers and workmen.

During the year the Western Fuel Company appointed inspectors to examine its various mines in regard to "safety first." Years ago this company was among the first of the Vancouver Island coal operators to adopt the "safety first" principle in the operation of its mines, and not only did it adopt the motto of "safety first," but it has carried it out in practice as far as practicable ever since. To further show that "safety first" is possible and practicable, it has appointed two safety-first inspectors to examine the whole of the mines operated by the company.

The company is to be commended for taking up this crusade in such a practical manner. In selecting Geo. Yarrow and J. Jemson for the positions of inspectors it exercised a wise choice, as both men are experienced and capable miners, who not only have had years of creditable service in the employ of the company, but are among the pioneers both in "first aid" and "safety first." With this movement established on such a practical basis, no doubt much good of an educational character will be accomplished and the number of accidents reduced.

It is not the intention of the company to carry on an aggressive campaign, but rather an educational one. To appeal to the personal element is the object of the company, and it is by coming into personal contact with the men in the various mines that the safety-first committee must look for a reduction in the number of accidents.

To further stimulate the movement and to encourage the workmen, the company has inaugurated a rather novel method of instructing first aid which is proving very successful, as over 100 members are already on the roll, and every meeting is being enthusiastically attended. The class is divided into groups of five, with a captain in charge. The captain's duty is to instruct his team in the principles of first aid and stretcher-drill. The senior men are assuming the position of instructors. A general meeting is called once a week, and much interest is taken in these meetings, the aim of which is to discuss the reading of a paper, which is read by some member of the class.

To further encourage the work, a social time is held once a month, where a paper is prepared and read on "safety first," general discussion following. To help out the social time the company makes a satisfactory donation, and also donates an additional $50 among the members of the class, to be divided equally, or disposed of as the members may please. The captains and instructors receive a special donation which recompenses them for the little extra work they do in connection with their teams. It is proposed to carry on the work until April, when an examination will be held and certificates awarded. The most proficient will receive special recognition and a prize from the company. There will also be a special prize awarded to the best five-man team.

With such an encouraging beginning and every promise of a most satisfactory term, the company is to be congratulated, and if the members of the class stick together much valuable knowledge will be acquired to the mutual benefit of all concerned.

The equipment of the company is as follows: Four 2-hour Draeger apparatus, 1904 and 1909 type; four 2-hour Proto apparatus; three 1-hour Proto apparatus; one pulmotor; one recharging pump; sixteen oxygen storage-cylinders; eight 2-hour cylinders; eight Proto cylinders; five 1-hour Proto cylinders; and a sufficient supply of potash regenerators.

NANAIMO COLLIERY.

T. R. Jackson, Manager.

No. 1 Shaft, Esplanade.

David Brown, Overman of the North Side of No. 1 Mine; Robert Adam, William Johnson, William Neave, John Wallbank, John Sutherland, George Stewart, Thomas Smith, Alexander Rowan, John Rowan, William Holliday, Ernest Kelly, David John, William Brown, James Millie Brown, George Bennett Bradshaw, George Jardine, James Perry, James McMeekin, James Dudley, John Thompson, and Paul Laynard, Firemen.

Development-work.

The seams worked are the Douglas and Newcastle. The coal produced from No. 1 North level is all from the Newcastle seam, which lies 70 feet below the Douglas, and is penetrated by three slopes—namely, Nos. 1, 2, and 3—varying from 4,000 to 5,000 feet between each slope, and covers an extensive working-face. These slopes are connected one with the other, making one continued working-face.

The seam varies from 3 to 3½ feet in thickness, is of a very hard nature, and is worked on the long-wall system, to which it is well adapted. Mining-machines of the "pick quick" (or bar machine) and puncher types, operated by compressed air, are used to undercut the coal, the cut varying from 5 to 6 feet in depth.

A large staff of officials is employed in these sections, as shotlighters, facemen, and timbermen, to look after the safety of the workmen engaged.

For every four loaders there is a certificated coal-miner engaged to break the coal down, and for every eight loaders there is one timberman employed and a certificated fireman, who is in charge of the section; but in spite of all these precautions men will risk their lives and the lives of their fellow-workmen by going into places where they are forbidden. In addition, notices are posted in all sections of the mine, warning workmen against the violation of the general and special rules.

The ventilation of these sections is produced by a Guibal force-fan, 9 x 18 feet, and 100 horse-power, rope-driven, making 70 revolutions a minute, producing 100,000 cubic feet of air a minute, with a water-gauge of 2 inches. There is also an emergency exhaust-fan stationed at Newcastle Island shaft ready for use.

The coal is hauled out of No. 1 level to No. 1 shaft by six electric motors of the trolly type—four Edison, one Westinghouse, and one tandem of the Jeffery type—all doing very efficient work.

On my last examination I found 62,000 cubic feet of air a minute passing into this No. 1 mine, divided into three splits.

No. 3 Split, off No. 2 Slope.

There was 4,250 cubic feet of air a minute passing into the split for the use of twenty-five men and five horses, or an average of 106 cubic feet of air for each unit employed. No explosive gas found; timbering and roadways good.

No. 1 Slope.—There was 8,000 cubic feet of air a minute passing into the slope for the use of twenty-seven men and three horses, or an average of 222 cubic feet of air for each unit employed. No explosive gas found; timbering and roadways good.

No. 3 Slope.—There was 9,900 cubic feet of air a minute passing into the slope for the use of forty-six men and eight horses, or an average of 141 cubic feet of air for each unit employed. No explosive gas found; timbering and roadways good.

No. 2 Split, No. 2 Slope.

There was 11,750 cubic feet of air a minute passing into the split for the use of forty-six men and five horses, or an average of 192 cubic feet of air for each unit employed. No explosive gas found; timbering and roadways good. These sections were fairly free from coal-dust.

North-east Slope, off No. 2 Slope.

There was 7,700 cubic feet of air a minute passing into the section for the use of thirty-two men and five horses, or an average of 159 cubic feet of air a minute for each unit employed. No explosive gas found; timbering and roadways good. The section was fairly free from coal-dust.

Protection Pillars, Protection Shaft.

I examined all available parts of the pillars and found them free from gas, well ventilated, and the faces well cogged up.

This shaft is used only for the raising and lowering of the workmen engaged in the North side of the mine. The only operations carried out are extracting of pillars for generating power supplied to mining-machines and winches, etc.

Machinery installed: Three Canadian Rand compressors, two 2,500 and one 1,800 cubic feet of air a minute.

Safety-lamps are used in this section of the mine, with the exception of Nos. 1 and 2 slopes. Permitted explosives are used for breaking the coal, fired by electric batteries.

South Side of the Mine, Douglas Seam.

Jacob Stobbart, Overman of the Section; Samuel Kenmore Mottishaw, Henry Ernest Devlin, John Weeks, Alfred Odgers, Joshua Norris, Francis Green, Moses Woodburn, Joseph William Dykes, William Bradley, Robert Potter, Matthew Broderick, James Richards, William C. Brown, and Matthew Stafford, Firemen.

The ventilation of the South side is produced by a 72- x 90-inch double-inlet Sirocco fan, rope-driven, ratio 3½ to 1, running 250 revolutions, producing 195,000 cubic feet of air a minute, with a 4-inch water-gauge, and an engine of 350 horse-power. A second Sirocco fan of the same size, in every way modernly equipped, is kept under steam in case of emergency.

Nothing but safety-lamps of the Wolf pattern and permitted explosives, fired by batteries, are used in the section.

The haulage from this section is by main-and-tail rope and endless-rope system. The production of the mine is 1,650 tons a day.

This section of the mine forms the deepest workings and is worked on the pillar-and-stall system. The South-east levels have nearly reached the boundary which divides the Reserve mine from the South side of No. 1 mine, which is 400 feet in thickness.

In the extraction of pillars this part of the mine has always been a source of danger through gob-fires. To cope against any danger from this source a line of wood stoppings 6 x 6 inches in thickness and 6 feet long, faced with 6 inches of concrete, has been built, dividing these pillars off into panels. The pillars are drawn a reasonable distance toward the stoppings, and another line is built for the same purpose. Thus, if a fire broke out when the pillars were being extracted, they could be sealed off immediately.

To overcome the many dangers of being caught by cars in this district, all drivers, rope-riders, and trackmen are equipped with the Edison head-lamp.

On my last inspection I measured 42,300 cubic feet of air a minute passing, divided into two splits.

No. 1 Split.—There was 9,000 cubic feet of air a minute passing into the split for the use of forty-six men and four horses, or an average of 155 cubic feet of air for each unit employed. No explosive gas found; timbering and roadways good.

No. 2 Split.—There was 14,300 cubic feet of air a minute passing into the split for the use of sixty men and fourteen horses, or an average of 140 cubic feet of air for each unit employed. No explosive gas found; timbering and roadways good.

No. 2 North Level.—There was 4,000 cubic feet of air a minute passing into the section for the use of eighteen men and two horses, or an average of 166 cubic feet of air for each unit employed.

A large quantity of gas was found all along the caves in the South-east headings. The use of explosives is strictly prohibited in this section as long as conditions of this kind prevail. Timbering and roadways good. The section of the mine is fairly free from coal-dust, with the exception of No. 6 South heading.

The following are the official returns from the No. 1 shaft and Protection Island collieries for the year 1917:—

Sales and Output for Year.	Coal.		Coke.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	165,106			
" export to United States	235,258			
" " other countries				
Total sales		400,364		
Lost in washing	14,086			
Used under colliery boilers, etc.	52,949			
Total for colliery use		67,035		
		467,399		
Stocks on hand first of year	4,676			
" last of year	1,033			
Difference taken from stock during year		3,643		
Output of colliery for year		463,756		

Number of Hands employed, Daily Wages paid, etc.

Character of Labour.	Underground.		Above Ground.		Totals.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
		$		$		
Supervision and clerical assistance	20		10		30	
Whites—Miners	284	3.61 - 8.00			284	
Miners' helpers	12	3.16 - 3.71			12	
Labourers	196	3.16 - 5.50	14	3.00 - 3.76	210	
Mechanics and skilled labour	59	3.16 - 4.93	51	3.30 - 5.83	110	
Boys	42	1.26 - 3.24	16	0.55 - 2.66	58	
Japanese						
Chinese			90	1.65 - 2.58	90	
Indians						
Totals	613		181		794	

Description and length of tramway, plant, etc.—Mine operated 300 days.

RESERVE MINE.

James Dickson, Manager; James Renney, Overman; Albert Manifold, Edward Wilkinson, George Oswald, Richard Smith, George Frater, George Moore, Benjamin Cheetham, John McCourt, Harry Allsopp, Frederick Bell, Frederick Hilley, Arthur Challoner, Richard Rallison, and James Wardrop, Firemen.

The mine is situated in what is known as the Cranberry district, about five miles south of No. 1 shaft, Nanaimo, B.C. The coal is reached by two shafts at a depth of 955 feet, from which a rock tunnel 8 x 10 feet in area is driven across the measures on a 1-per-cent. grade to the rise. This tunnel tapped the seam at a distance of 180 feet.

The shaft-bottom is laid out in a most up-to-date method for handling large quantities of coal. All the tracks are laid with 30-lb. rails and on a grade of 1 per cent. from the shaft. All the main tunnels leading to this shaft have been retimbered with 12- x 12-inch timbers.

The seam worked in this mine is the Douglas, and in the development-work done it shows a thickness of from 1 to 20 feet; it is lenticular in formation, or full of pinches and swells, and is very slickensided. The pitch of the seam varies from 20 to 60 degrees, which makes the handling of the coal very difficult, it being handled at places by chutes and at places by small cars; this causes a good deal of breakage. The pitch also makes it difficult to handle timber. The roof is friable and requires good timbering.

To open up and prove the area above the steep pitches in two of the headings, storage-chutes were built from the main haulage levels up to where the pitch lightens, to a point where the coal would not run. From this point small cars with a capacity of about 14 cwt. are then used to the face of the workings, the haulage being done by small horses and compressed-air winches. By this method the coal is hauled from the faces and dumped into the storage-chutes, drawn from chutes when required into the large 2-ton mine-cars which are used on the main haulage level.

During 1917 considerable development-work has been carried out on all sides of the mine. The East levels have been extended over 3,000 feet, and with the exception of 60 feet were driven in coal the whole distance. Two slopes were started to the dip on the left side of the East level. The first, going in good coal for about 250 feet, struck thin coal and stopped. The second slope is now in 300 feet and in good coal all the way; the pitch in the slope is 16 degrees.

On the West side of the mine the Main level was extended 500 feet, mostly in rock, and was abandoned. On the left side of the West level a series of places were driven up to the pitch, the angle of inclination gradually increasing until the vertical was reached.

Three "blind" shafts were extended upwards, and the normal part of the seam was reached at an elevation of 150 feet above the West level. At a point 1,500 feet from the shaft an incline was started on the left side of the West level to reach the coal that had been proved by the above workings. After cutting 600 feet in rock on a pitch of 18 degrees the position of the seam was reached and connection made with the above-mentioned workings.

A geared hoist with 12- x 14-inch cylinders driven by compressed air is installed at the top of the incline to deal with the haulage question in this section. At present the output from this part of the mine averages 250 tons a day.

On the South side of the mine two prospect headings have been driven south 500 feet to prove the ground in that direction. On the South side of the East level the workings reached a point beyond which the management decided not to advance farther.

The pillars in this section are now being extracted. Permanent stoppings, constructed of 12- x 12-inch timbers, have been built in all roadways giving access to the section where the pillars are being withdrawn, leaving only sufficient area in certain stoppings for the air-current and haulage; so that, in the event of any heating or fire occurring, no time would be lost in sealing off if such course was decided upon.

The mine has been almost free from explosive gas, and when it has been found, it has been found only in small quantities. In the above-mentioned pillar-work explosive gas has not been found on any occasion.

The ventilation is carried along the main levels on both sides of the mine and maintained by permanent stoppings of 12- x 12-inch timbers between intake and return airways, these being kept close up to the face of the levels. The main intakes are naturally damp and systematic watering is carried out in the main places and around the chutes.

Two slopes on the right side of the West level were extended to a total distance of 1,200 feet, the last 500 feet being mostly rock. At this point it was decided to abandon the slopes and take out the few pillars which had been formed. This was done and the pillars were extracted back towards the top of the slopes.

On September 7th, when the last two pillars were being extracted, smoke was discovered issuing from the gob on the right side of the Main slope, where a few small pillars had been taken out. An effort was made to locate the seat of the fire, but owing to the heavy caving of the ground this was found to be impossible.

Stoppings were at once started in the slopes to seal off the whole district and the drainage of the mine turned into the slopes. The stoppings, which were built of 12- x 12-inch timbers, faced with 9-inch wall concrete immediately afterwards, were completed at 6 a.m. the following morning.

On my last examination I found 54,000 cubic feet of air a minute passing divided into four splits.

No. 1 Split, East Side.—There was 12,000 cubic feet of air a minute passing into the split for the use of thirty-four men and three horses, or an average of 272 cubic feet of air for each unit employed. No explosive gas found; timbering and roadways good.

No. 2 Split.—There was 14,000 cubic feet of air a minute passing into the split for the use of thirty men and three horses, or an average of 360 cubic feet of air for each unit employed. No explosive gas found; timbering and roadways good.

No. 3 Split.—There was 12,000 cubic feet of air a minute passing into the split for the use of twenty men and two horses, or an average of 461 cubic feet of air for each unit employed. No explosive gas found.

West Side.—There was 26,000 cubic feet of air a minute passing into the section of the mine for the use of fifty-five men and four horses, or an average of 388 cubic feet of air for each unit employed. Timbering and roadways good; no explosive gas found.

This mine is fairly free from coal dust.

The following are the official returns of the Reserve Colliery for the year ending December 31st, 1917:—

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	65,633			
" export to United States	64,136			
" " other countries				
Total sales		129,769		
Lost in washing	4,471			
Used under colliery boilers, etc	14,375			
Total for colliery use		18,846		
		148,615		
Stocks on hand first of year	2,882			
" last of year	1,438			
Difference taken from stock during year		1,444		
Output of colliery for year		147,171		

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
		$		$		
Supervision and clerical assistance	6		7		13	
Whites—Miners	108	3.61 - 8.00			108	
Miners' helpers	4	3.71			4	
Labourers	84	3.16 - 4.93	11	3.00 - 3.76	95	
Mechanics and skilled labour	33	3.16 - 4.93	28	3.30 - 5.70	61	
Boys	10	1.26 - 2.02	11	0.55 - 2.66	21	
Japanese						
Chinese			51	1.65 - 2.49	51	
Indians						
Totals	245		108		353	

Description and length of tramway, plant, etc.—Mine operated 301 days.

HAREWOOD MINE, WELLINGTON SEAM.

Richard Battey, Manager; John White, Overman; John Docherty, John Bell, William Henry Moore, John Kirkwood, James Handlen, and Thomas Reid, Firemen.

This mine was closed down in September, 1902 and reopened on July 4th, 1917. The tunnel was closed up and track laid to the top of the slopes, which were driven up from the old shaft.

Operations on the coal were commenced in the first week of August and consisted of skips off the pillars on the rise side of No. 1 level and solid stall workings in the counter-slope driven towards the tunnel entrance. Skips were also taken off pillars in Nos. 2 and 3 levels to the right of Main slope and the solid workings to the left of slopes in No. 3 level.

The whole of the present working-places are in the solid, except one place in No. 3 level, through which a main road has been run, which is intended to cut out No. 2 level, leaving the pillars on the high side. Only one pillar has been drawn on the rise side of No. 1 level. The other pillars will all be left as they are until later.

Solid workings have been started below No. 3 level, and it is the intention to extend the workings down the Main slopes, commencing places on both sides, until the old stalls which worked from the old shaft are reached on the right side of slope. In the Main or No. 1 level they have places on both sides, and it is the intention to run the coal down a self-acting incline from the rise workings on to the level starts, driven for that purpose.

The mechanical or rather electrical haulage in use at present consists of a winch hauling from the slope, and motor on the Main level direct to tipple; power being supplied from power-house at shaft by overhead cables.

Machinery installed: One Jeffery haulage-motor and one electric hoist. The ventilation of the mine is produced by a fan of the Murphy type (6 feet diameter double), central drive, Ideal horizontal engine, with a capacity of 35,000 cubic feet of air a minute.

On my last visit I found 31,900 cubic feet of air a minute passing into the mine, divided into two splits.

No. 1 Split.—There was 14,400 cubic feet of air a minute passing into the split for the use of fifty men and five horses, or an average of 221 cubic feet of air for each unit employed. No explosive gas found; timbering and roadways good.

No. 2 Split.—There was 17,500 cubic feet of air a minute passing into the split for the use of fifteen men and two horses, or an average of 833 cubic feet of air for each unit employed. No explosive gas found; timbering and roadways good.

This mine is fairly free from coal-dust. Safety-lamps are used exclusively in the mine. Permitted explosives, fired by electric batteries, are used.

On all dates I examined all record-books required under section 91, subsections (4) and (36), of the "Coal-mines Regulation Act," and found the requirements of the above Act carried out.

The following are the official returns of the Harewood Colliery for the year ending December 31st, 1917:—

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	10,222			
" export to United States	29,665			
Total sales		39,887		
Lost in washing	1,443			
Used under colliery boilers, etc.	633			
Total for colliery use		2,076		
		41,963		
Stocks on hand first of year				
" last of year	5,537			
Difference added to stock during year		5,537		
Output of colliery for year		47,500		

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
		$		$		
Supervision and clerical assistance	6		3		9	
Whites—Miners	62	3.93 - 7.50			62	
Miners' helpers	6	3.43 - 3.71			6	
Labourers	19	3.43 - 4.38	5	3.00 - 3.76	24	
Mechanics and skilled labour	11	3.43 - 4.93	12	3.43 - 4.98	23	
Boys	6	1.37 - 2.36	3	0.55 - 2.66	9	
Japanese						
Chinese			15	2.18 - 2.37	15	
Indians						
Totals	110		38		148	

Description and length of tramway, plant, etc.—Mine operated 116 days.

British Columbia Coal Mining Co., Ltd.

(SUCCESSOR TO VANCOUVER-NANAIMO COAL MINING CO., LTD.)

Head Office—Vancouver, B.C.

Capital, $300,000.

Officers.	*Address.*
William Warner, President,	439 Granville Street, Vancouver, B.C.
Howard Gallagher, Secretary-Treasurer,	744 Hastings Street W., Vancouver, B.C.
H. N. Freeman, Superintendent,	P.O. Box 834, Nanaimo, B.C.

The following returns show the complete output of the colliery for the year ending December 31st, 1917, under both companies:—

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	49,522			
" export to United States	179			
" " other countries				
Total sales		49,701		
Lost in washing	4,875			
Used under colliery boilers, etc.	8,498			
Total for colliery use		13,373		
		63,074		
Stocks on hand first of year	1,488			
" last of year				
Difference taken from stock during year		1,488		
Output of colliery for year		61,586		

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	4		4		8	
Whites—Miners	66				66	
Miners' helpers						
Labourers	33		10		43	
Mechanics and skilled labour	2		18		20	
Boys	3				3	
Japanese			13		13	
Chinese						
Indians						
Total	108		45		153	

NEW EAST WELLINGTON COLLIERY.

Henry Nevill Freeman, Manager; W. H. Moore, Overman; Geo. Gray, C. Dickinson, Jos. W. Dykes, Stephen Davis, A. Bryden, and R. Reid, Firemen.

The mine is situated two miles due west from the city of Nanaimo, on Ranges 10 and 11, in the Mountain district, and is known as the Old Wellington seam. It is penetrated by two slopes running N. 70° E., and pitching about 35 degrees, for a distance of 1,400 feet. At this point headings are turned off N. 65° E., which have reached the boundary. At a distance of 300 feet from the foot of the slope on No. 1 East level, dip workings are driven N. 15° E. to the boundary.

All the solid work being finished, the pillars are now being drawn back. The coal varies from 4 to 8 feet in thickness and is worked by the pillar-and-stall methods; the coal, being of a very hard nature and free from impurities, is all hand-mined, excepting two or three places around the fire-zone, which are being mined by the Siskol mining-machine.

Wolf safety-lamps and permitted explosives, fired by batteries, are used throughout the whole mine. The mine is equipped with two 2-hour and one ½-hour Draeger oxygen apparatus, one pulmotor, and four Ceag electric lamps. They have sixteen trained Draeger men holding British Columbia certificates of competency, and have one more team in training. They have also twenty first-aid men. The mine has a system of training of their own which is carried out underground.

The ventilation of the mine is produced by a Browning reversible fan, with a capacity of 100,000 cubic feet of air a minute, coupled to a 74-horse-power, 12 x 16 Houston, Stanwood & Gamble engine, making 250 revolutions a minute, with a 2½-inch water-gauge; also a 4 x 9 Sheldon fan, kept ready under steam in case of emergency.

A gob-fire broke out at 3 a.m. on the morning of October 5th in the old worked-out area of No. 5 West level, and after an examination of the same, accompanied by Chief Inspector Wilkinson, we found that owing to the extracted area and the remaining pillars being so small it was utterly impossible to erect permanent stoppings; so after a consultation with Mr. Freeman, the manager, and the overman, Mr. Moore, it was decided to erect the stoppings in the Main and Return slopes. This was successfully done on October 7th.

On November 22nd, after an examination accompanied by Chief Inspector Wilkinson, Inspector Devlin, the manager and overman, and after samples of the mine-air taken at the return stoppings, it was decided to open the stoppings again, and work of removing the gases was proceeded with up to November 28th, when it was discovered that the fire was not extinguished; consequently the mine was sealed off again on November 29th, remaining closed up to the present time.

The following is the official return from the Vancouver-Nanaimo Coal Mining Company, Limited, up to August 31st, when it ceased to exist:—

Sales and Output for Year.	Coal.		Coke.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	43,575			
" export to United States				
" " other countries				
Total sales		43,575		
Lost in washing	4,368			
Used under colliery boilers, etc.	7,430			
Total for colliery use		11,798		
		55,373		
Stocks on hand first of year	457			
" last of year				
Difference taken from stock during year		457		
Output of colliery for year		54,916		

Name of seams or pits—No. 1 East Wellington mine, Wellington seam.
Description of seams, tunnels, levels, shafts, etc., and number of same—No change from previous report, excepting pillars being down.

The following is the official return from the British Columbia Coal Mining Company from September 1st to the end of the year 1917:—

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	5,947			
" export to United States	179			
" " other countries				
Total sales		6,126		
Lost in washing	507			
Used in making coke				
" under colliery boilers, etc.	1,068			
Total for colliery use		1,575		
		7,701		
Stocks on hand first of year	1,031			
" last of year				
Difference taken from stock during year		1,031		
Output of colliery for year		6,670		

Name of seams or pits—Same as Vancouver-Nanaimo Coal Company in previous issue.
Description of seams, tunnels, levels, shafts, etc., and number of same—Same.
Description and length of tramway, plant, etc.—Same.

REPORT BY INSPECTOR NEWTON.

Pacific Coast Coal Mines, Limited.

Head Office—Victoria, B.C.

Capital, $2,000,000.

Officers.	*Address.*
James Carruthers, President,	Montreal, Que.
J. H. Paine, Vice-President and Managing Director,	Victoria, B.C.
Douglas Muir, Secretary-Treasurer,	Victoria, B.C.
Robert Bonar, Superintendent,	South Wellington, B.C.

Value of plant, $501,805.

This company includes in its holdings the Fiddick Colliery at South Wellington; the Morden Colliery on Section 11, Range 8, Cranberry District, two miles east of South Wellington; and the Suquash Colliery on the east coast of Vancouver island, near Malcolm island. Of these, the Fiddick Colliery only worked until June in the No. 1 slope, when the mine was finally closed down. The Morden Colliery was operated all year. The Suquash Colliery was not worked during the year.

MORDEN MINE.

William Roper, Manager; Joseph Neen, Overman; E. J. Parrott, Wm. G. Brown, Thos. Robson, David McMillan, Frank Jaynes, Neil McIntyre, and John Donnachie, Firemen.

This mine is operated on the Douglas seam, and is situated on Section 11, Range 8, Cranberry district, and about two miles from the town of South Wellington.

The plant consists of three 150-horse-power Goldie & McCulloch 72- x 18-inch boilers, 160 lb. working-pressure; one pair 24 x 36 hoisting-engines equipped with safety overwinding device, steam-brake; two 10-foot sheaves with collars and boxes and two self-dumping cages; one Gwynnes 5-inch centrifugal pump direct-connected to 250-volt a.c. motor; two 150-kw. electrical generators connected to two Goldie & McCulloch 13 x 20 x 9 high-speed engines; five electrical motors, 400-volt, Iron Works fan-engine; one Marcus screen 65 feet long, one Marcus screen 63 feet long, both with double decks and doors; one Weir feed-pump.

The mine is penetrated by two shafts; the main shaft is 9 x 16 feet and the air-shaft 9 x 12 feet in the clear, and are sunk to a depth of 600 feet.

A new shaft-bottom has been completed below the level of the old one, with two slopes driven direct from the bottom of the shaft, which will pass through the centre of the company's property.

The ventilation is produced by a Sheldon double-entry fan 7 feet in diameter, at from 3- to 3½-inch water-gauge, at 250 revolutions a minute. A 16- x 12-inch engine, made by the Vulcan Iron Works, drives this fan, the fan being built on reinforced-concrete foundation.

Connections have been made between the new slopes and the old one. All the coal from the mine is hauled to the new shaft-bottom by an electric hoist, which is erected on reinforced-concrete at the head of the Main slope.

The coal is well adapted for steam purposes, and varies from 3 to 30 feet in thickness. The two Main slopes are in troubled ground at the present time, but it is to be hoped they will soon reach the coal again.

What is called the East slope is in very good coal, averaging about 7 feet in thickness. The mine is worked on the pillar-and-stall system.

The mine is worked exclusively by safety-lamps of the Wolf pattern; only permitted explosives are used, fired by electric battery.

The old slope has reached the boundary-line, and all pillars on the right of this slope have been extracted.

On Monday, November 19th, a small heating took place in the old gob of this slope, where the pillars had been extracted, which necessitated the putting-in of four concrete stoppings, thus sealing the section from the other parts of the mine.

The No. 4 shaft or return-air shaft is now being used exclusively as an emergency shaft. An engine with steam on and a hoisting-cage in the shaft is always ready to hoist the men in case of any emergency. A complete set of Draeger apparatus is always ready.

On my last inspection I measured 46,000 cubic feet of air a minute passing for the use of fifty-eight men and five horses, or an average of 630 cubic feet of air for each unit employed.

Explosive gas found in Fielding's place, No. 1 Right level off the East slope, and a gas-cap in R. Wright's place in a crosscut off counter-slope. The timbering and roadways are good. Coal-dust is prevalent in the mine, but arrangements have been made to have this menace loaded out.

On all dates I examined all record-books required under section 91, subsections (4) and (36), of the "Coal-mines Regulation Act," and found the requirements of the above Act carried out.

The following are the official returns for the Fiddick and Morden Collieries, which are also the full returns for the whole company, for the year ending December 31st, 1917:—

SALES AND OUTPUT FOR THE YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	69,287			
" export to United States	43,704			
" " other countries				
Total sales		112,991		
Lost in washing	17,296			
Used under colliery boilers, etc.	20,351			
Total for colliery use		37,647		
		150,638		
Stocks on hand first of year	1,028			
" last of year	928			
Difference taken from stock during year		100		
Output of colliery for year		150,538		

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
		$		$		$
Supervision and clerical assistance	10	4.50	5	5.40	15	4.50-5.40
Whites—Miners	98	5.00			98	5.00
Miners' helpers						
Labourers	44	3.55			44	3.55
Mechanics and skilled labour	2	3.55-3.85	39	2.80-4.65	41	2.80-4.65
Boys			5	1.75	5	1.75
Japanese						
Chinese			60	2.10	60	2.10
Indians						
Totals	154		109		263	

Name of seams or pits—Working on the upper Douglas seam.

Description of seams, tunnels, levels, shafts, etc., and number of same—At the Morden mine coal is reached by means of shafts: No. 3 shaft, 655 feet in depth, 10 x 18 feet in the clear; No. 3 air-shaft, 630 feet in depth, 10 x 10 feet in the clear.

Description and length of tramway, plant, etc.—At Morden mine the plant consists of three 150-horse-power and one 100-horse-power return-tubular boilers; one pair 24 x 36 hoisting-engines with safety overwinding device, with steam-reverse and steam-brake; two 10-foot sheaves and two self-dumping cages; one Canadian Rand cross-compound air-compressor; two 150-kw. electrical generators connected with 13 x 20 x 9 high-speed engines; one Sheldon ventilating mine-fan, directly-connected to a 17 x 20 engine. There is a thoroughly equipped machine-shop and also mine-rescue station at South Wellington, containing two 2-hour apparatus and one ½-hour apparatus. A standard-gauge railway seven miles and a half long connects the mines with Boat Harbour, the shipping-point, equipped with wharves and bunkers, and where an extension to the wharves has been built and loading equipment now being completed which will accommodate the largest ocean-going steamers.

The Nanoose Collieries Co., Ltd.

Head Office—Vancouver, B.C.

Capital, $50,000.

Officers.	*Address.*
W. J. Vanhouten, President,	Vancouver, B.C.
K. S. Robinson, Vice-President,	Vancouver, B.C.
W. H. Wilson, Secretary-Treasurer,	Vancouver, B.C.
J. J. Grant, Superintendent,	Wellington, B.C.

Value of plant, $40,378.

NANOOSE COLLIERIES.

John John, Manager; J. Saunders, John Michie, Jos. Renalda, and John McLeod, Firemen.

This mine is situated at Nanoose Bay, about five miles in a north-westerly direction from what is known as North Wellington, which was formerly worked under the old Dunsmuir Company, and is known as the Old Wellington seam.

A shaft 8 x 16 has been sunk on this property a distance of 133 feet, with levels turned off east and west. The coal varies from 3 to 4 feet in thickness, lying in two trenches, with rock varying from 2 to 5 feet in thickness between the coal.

The two main headings are not working; they ran up against a down-throw fault, which threw the seam down about 26 feet; after proving the seam for about 300 feet, and no improvement, the company decided to abandon them for the time being and do some diamond-drilling to try and locate the coal. Two slopes are being driven in a south-easterly direction to prove the seam underlying the submarine area.

A new head-frame has been erected with a capacity of handling 500 tons a day. The new loading-wharf which was under construction in my last report has been completed. A number of cottages have been built on the Comox road to accommodate the workmen of the mine. A new hoist and boilers have also been completed.

The ventilation of the mine is produced by a small fan capable of producing 12,000 cubic feet of air a minute. The mine is worked on the pillar-and-stall system, with permissible powders fired by batteries. Open lights are used, as there never has been any gas seen. The mine is fairly free from coal-dust.

On my last inspection, accompanied by Chief Inspector Wilkinson, we found 15,000 cubic feet of air a minute passing into the mine for the use of twenty-eight men and three horses, or an average of 405 cubic feet of air for each unit employed. Timbering and roadways are good.

On all dates I examined all record-books required under section 91, subsections (4) and (36), of the "Coal-mines Regulation Act," and found the requirements of the above Act carried out.

The following are the official returns for the year ending December 31st, 1917:—

SALES AND OUTPUT FOR THE YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	16,075			
" export to United States	9,747			
" " other countries				
Total sales		25,822		
Used in making coke				
Used under colliery boilers, etc.	2,000			
Total for colliery use		2,000		
Stocks on hand first of year				
" last of year				
Difference taken from stock during year				
Output of collieries for year		27,822		

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
		$		$		
Supervision and clerical assistance	3		3		6	
Whites—Miners	36	4.25-7.50			36	
Miners' helpers						
Labourers	15	3.70-4.00	6	3.25-3.75	21	
Mechanics and skilled labour			8	3.50-4.25	8	
Boys						
Japanese						
Chinese			16	1.90-2.15	16	
Indians						
Totals	54		33		87	

Name of seams or pits—Grant mine.

Description of seams, tunnels, levels, shafts, etc., and number of same—Continuation of the Wellington seam to north and west of the old Wellington workings. Entered by three-compartment shaft 8 x 16 feet in the clear, depth 130 feet. Coal-seam is in two benches, upper and lower; lower bench averages 22 inches and upper about 24 inches, with shale between. Main level driven to the east 650 feet; heading driven off Main level 300 feet from shaft to a distance of 900 feet; slope branches off the Main level 150 feet to the east of the shaft; slope has been driven 500 feet.

Description and length of tramway, plant, etc.—Pit-head with double-drum hoisting-engine of 110 horse-power; Waterous boiler, 85 horse-power, at 125-lb. steam; one air-compressor, capacity 210 feet of air a minute; one Stuyvesant fan, capacity 25,000 feet of air a minute; machine and blacksmith shops with equipment; fifteen 3- and 4-room houses and eight 2-room cabins.

Canadian Collieries (Dunsmuir) Limited.

Head Office—Victoria, B.C.

Capital, $15,000,000.

Officers.	*Address.*
Sir William Mackenzie, President,	Toronto, Ont.
Hy. S. Fleming, Chairman, Executive Committee,	New York.
H. S. Adlington, Secretary,	Montreal, Que.
A. J. Mitchell, Treasurer,	Toronto, Ont.
Thos. Graham, General Superintendent,	Cumberland, B.C.

The Canadian Collieries (Dunsmuir), Limited, during the year 1911 acquired all the holdings of the Wellington Colliery Company, Limited, and during the past four years has been operating the following mines:—

The Extension Colliery, in the Cranberry District (Extension); T. A. Spruston, manager.

The Comox Colliery, in the Comox District; J. W. Montgomery, George O'Brien, J. G. Quinn, managers at the several mines.

NOTE.—This latter colliery is in the Comox Inspection District, in which report will be found a description of the property and the details of production.

The following table shows the combined output of all this company's collieries during the past year:—

RETURNS FROM THE CANADIAN COLLIERIES, LTD., MINES FOR YEAR 1917.

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	360,735		31,559	
" export to United States	132,219			
" " other countries	38,211			
Total sales		531,165		31,559
Lost in washing	182,707			
Used in making coke	54,289			
Used under colliery boilers, etc	30,716		117	
Total for colliery use		267,712		117
		798,877		31,676
Stocks on hand first of year	4,874		2,743	
" last of year	3,345		1,473	
Difference taken from stock during year		1,529		1,270
Output of collieries for year		797,348		30,406

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	38		44		82	
Whites—Miners	444				444	
Miners' helpers	3				3	
Labourers	355		35		390	
Mechanics and skilled labour	33		50		83	
Boys						
Japanese	97		2		99	
Chinese	263		143		406	
Indians						
Totals	1,233		274		1,507	

REPORT OF HENRY DEVLIN, INSPECTOR.

I have the honour to submit my annual report as Inspector of Mines for the Northern District of Vancouver Island for the year ending December 31st, 1917, together with a list of all accidents and colliery returns.

Canadian Collieries (Dunsmuir) Ltd.

COMOX COLLIERIES.

These mines were formerly operated by the Wellington Colliery Company, but were taken over by the Canadian Collieries (Dunsmuir), Limited, in 1910. The mines are situated in the Comox district, about seventy miles from Nanaimo. A railway about twenty miles in length connects the various mines to a shipping-point at Union Bay, over which the whole output is conveyed.

This company is operating in Cumberland mines known as No. 4 and 7 slopes and Nos. 5, 6, and 8 shafts. The new railway has been extended to connect with the various mines in this district, thus doing away with the heavy grade on the old line. Nos. 4 and 7 mines have been in continuous operation during the year. No. 5 mine reopened on April 16th and has been in continuous operation since. In No. 6 mine operations ceased on June 15th on account of shortage of labour. No. 8 shafts have not operated during the year.

The rescue-station of the company at Cumberland has been taken over by the Mines Department, with John Thomson in charge as caretaker and instructor.

THE HYDRO-ELECTRIC PLANT.

This plant has been in continuous operation through the year. A short length of transmission-line has been built for supplying electric power underground.

The power-house has been operated very satisfactorily and no repairs or improvements were needed. The output of power shows the same steady increase as in former years.

UNION BAY.

At Union Bay the coke-ovens have been in continuous operation. A second battery of 100 ovens has been built and put into operation, together with an electrically driven charging-larry and the necessary coal-conveying equipment.

The coal-washing plant has been extended and improved; nine additional coal-washing jigs have been installed, a new wing being added to the building for the purpose. A new pumping plant was installed, the pumps being housed in a special building and group driven by a 150-horse-power motor.

Improvements were made to the coal-handling machinery on the shipping wharves. The general water-supply service has been improved and additional fire hydrants installed. New offices were built and all clerical and official work for the district consolidated. The electrical and mechanical engineering for all the company's properties are carried on at Union Bay.

No. 4 Mine, Comox.

George O'Brien, Manager; Robert Adamson, Overman, No. 1 Slope; John Dando, Overman, No. 2 Slope; William Walker, Shiftboss; Sidney Horwood, Thomas Richards, John Bennie, Arthur Phelan, George Stewart, Daniel Parks Marsh, John Liddle, James Reid, William Beveridge, Arthur William Watson, Thomas Eccleston, Robert Reid, John George Biggs, James Quinn, Robert Ewing, and Robert Snedden Brown, Firebosses.

This mine is situated about two miles from Cumberland and about twenty miles from the shipping-point at Union Bay.

The ventilation is produced by a Sullivan reversible fan driven by a 350-horse-power motor, direct-coupled, running at 245 r.p.m., and capable of delivering 196,000 cubic feet of air a minute, against a 6-inch water-gauge.

The mine has been in continuous operation during the year. A 50-horse-power electric hoist and a small fan were installed at the new opening in the Upper seam. This new opening, not showing up very good, was closed down again.

Safety-lamps of the Wolf type are used in this mine and all blasting is done with permitted explosives, fired by electric battery. Orders have been placed for sufficient Edison storage-battery safety-lamps to fully equip the mines with electric lights. Part of the equipment has arrived and is being installed in No. 4 mine. The remainder will be installed as rapidly as possible.

The coal-seam is reached by two slopes, Nos. 1 and 2, a direct haulage system being in use.

No. 1 Slope.

This slope is down a distance of 7,000 feet, running due north. A Diagonal slope, 4,000 feet from the entrance of the mine, running N. 45° E., is down a distance of 4,000 feet, where levels are turned off east and west—Nos. 15, 16, 17, 18, 19, and 20 on the West side. There are no operations on the East side of No. 1 slope at the present time, No. 19 East level being used as a travelling-road between Nos. 1 and 2 slopes.

No. 15 West level is being widened out and repaired and a new slope put down from a point 1,500 feet from the mouth of the level; this slope will cut off the levels below No. 15 close to the faces, making an improvement in the haulage. This work on the West side of No. 1 slope is practically all solid work, with the exception of a few pillars to the rise side of No. 15 West level, and skipping some pillars in Nos. 17 and 18 West between the old and new slopes.

All the levels are in good coal ranging from 5 to 7 feet in height, with a band of rock running in the centre from 12 to 15 inches thick and having a fairly good roof.

No. 1 slope has not been driven ahead much during the year, probably on account of the slope being in faulty ground.

During my inspection in December I measured 19,750 cubic feet of air a minute passing into No. 1 slope for the use of seventy men and eleven mules, or an average of 191 cubic feet of air a minute for each unit employed. I found timbering in fairly good condition and the roadways in good order, with the exception of one place in No. 15 West level, where there was some bad rock that required stripping down. I found no explosive gas in No. 1 slope. This part of the mine was fairly free from coal-dust.

No. 2 Slope.

This slope branches off No. 1 slope a short distance from the mouth of the tunnel, running N. 45° E., and is down a distance of 9,000 feet, forming the deepest workings of the mine.

No. 2 slope is not advancing at the present time. Considerable work has been done repairing the return airways in Nos. 1 and 2 slopes and repairing stoppings. The ventilation has been changed back to the original system, using the two Main slopes as intakes, instead of one slope as intake and the other the return.

Levels are turned off this slope east and west—Nos. 15, 16, 17, 18, 19, and 20 on the East side, and Nos. 15, 16, 17, 18, 19, and 20 on the West side. Nos. 15 East and 15, 16, and 17 West are extracting pillars; all other levels are working on the pillar-and-stall system. The levels that are advancing are in good coal ranging from 5 to 6 feet in height, with a band of rock in the centre from 12 to 15 inches thick. The roof is a friable fireclay and requires careful timbering.

When I made my inspection in December I measured 41,000 cubic feet of air a minute passing into No. 2 slope, divided into two splits.

In the East side split there was 22,000 cubic feet of air a minute passing for the use of sixty-six men and ten mules, or an average of 229 cubic feet of air a minute for each unit employed.

In the West side split there was 10,000 cubic feet of air a minute passing for the use of twenty-five men and three mules, or an average of 290 cubic feet of air a minute for each unit employed.

I found a small quantity of explosive gas in the following places in No. 2 slope: In No. 17 stall, off No. 19 East level; in face of No. 19 East level and in face of No. 19 West level; also a slight gas-cap in face of No. 18 East level and No. 17 West level pillars. I found timbering in fairly good condition, with the exception of a portion of No. 19 West level, which was under repair. The roadways were in fair order, with the exception of a portion of No. 16 East level, which was in poor condition.

This part of the mine was fairly free from coal-dust, with the exception of a portion of the main haulage slope and a portion of No. 17 West level.

No. 5. MINE, COMOX.

John Graham Quinn, Manager; Thomas Taylor, Overman; Peter Myers, John Ernest Spicer, Jasper Rutherford, Thomas Smith Wilson, Isaac Nash, Duncan Thomson, James Brown, John Sutherland, Frank Crawford, Frederick Horwood, James Strang, Samuel Jones, and James Touhey, Firebosses.

This mine was reopened on April 16th and has been in continuous operation since. The new plant put into operation consists of a one-car rotary dump, a conveyor for conveying coal to the picking-tables, and one additional picking-table. Underground the main pump-house has been remodelled and two 5-stage turbine pumps, direct-driven by 75-horse-power motors, have been installed at the shaft-bottom. A 4-ton locomotive was put into operation, together with a motor-generator set on the surface for operating the same.

The development of No. 1 dip is being carried on; this is being done by four Sullivan type C.E. 7 coal-cutters. The West side of the shaft is being opened up. A new incline has been driven and a section of long-wall opened up in this district; this is being mined by a Sullivan C.E. 7 type coal-cutter. There has also been a 50-horse-power electric hoist installed in this district for running the coal down to the shaft-bottom; about one-fourth of the output from this mine is now being mined by machines.

The Sirocco fan for ventilating this and No. 6 mine has been in continuous service during the year, and has proved satisfactory.

When I made my inspection in December I measured 93,600 cubic feet of air a minute passing into the mine, divided into three splits.

In the West side split there was 21,600 cubic feet of air a minute passing for the use of twenty-five men and four mules, or an average of 540 cubic feet of air a minute for each unit employed.

In the split on the East side of No. 1 dip there was 19,000 cubic feet of air a minute passing for the use of sixty-two men and eleven mules, or an average of 200 cubic feet of air a minute for each unit employed.

In the split on the West side of No. 1 dip there was 18,800 cubic feet of air a minute passing for the use of thirty-five men and five mules, or an average of 376 cubic feet of air a minute for each unit employed. I found a little explosive gas in face of No. 4 West level, off No. 1 dip.

I found timbering and roadways in fair condition. This mine is free from coal-dust.

No. 6 MINE.

John Graham Quinn, Manager; Thomas Mordy, Overman.

This mine ceased operations on June 15th on account of shortage of labour. I regret to report that there was a fatal accident in this mine on June 3rd, 1917, which caused the loss of four lives by an explosion of gas; just how this accident occurred it would be a hard matter to determine.

Some improvements were made to the pit-head frame during the year. This shaft is being converted into a hoisting shaft for water-hoisting from Nos. 5 and 6 mines, which are connected. The water from these mines contains a considerable quantity of sulphuric acid, which is a source of great trouble and expense in pumping.

To avoid the expense of pump repairs and the frequent break-downs of pumping arrangements, water-boxes have been built on the cages at No. 6 mine, and the water from Nos. 5 and 6 mines is now being hoisted instead of pumped. The pumps in No. 5 are held in reserve for emergency.

When I made my inspection in December I measured 23,000 cubic feet of air a minute passing around the workings of the mine. I found explosive gas in the rock tunnel off No. 1 dip, owing to the intake airway of this section being blocked with water.

The attention of the management was directed to the state of the ventilation of this section, with instructions to have the same put in better shape and the gas removed. I found timbering and roadways in fairly good condition.

No. 7 Mine, Comox.

John Wilson Montgomery, Manager; Robert Brown, Overman; Robert Walker, James Monks, William James Keenan, Watkin Williams, James Lawther Brown, Thomas Henry Nanson, Norman Wilson Huby, and John McMurtrie, Firebosses.

This mine has been in continuous operation during the year. The pumping system has been improved; a 7-stage motor-driven turbine-pump has been installed. This pump has a capacity of 400 gallons a minute against a 900-foot head, and is driven by a 150-horse-power motor.

An electric cable was installed through a borehole into the lower workings to supply electric power to the above pump. This is the first time electric power has been used underground in No. 7 mine, all the power being furnished previously by compressed air, supplied by a 2,700-cubic-foot motor-driven Rand compressor on the surface.

The fault in No. 3 West level has been driven through and the seam opened up. A slope has been driven off No. 7 West level to cut off the places in No. 8 West level, thus concentrating the haulage from these two sections on one road. No. 10 West level has been unwatered and is being put into shape for operating again.

This mine is entered by means of two slopes running N. 35° E., and is down a distance of 7,000 feet. The method of mining is the long-wall system. The seam varies from 2½ to 3½ feet thick and is of a very hard nature, being well adapted to this method of mining.

No. 1 Main Slope.

From this slope levels are turned off east and west—Nos. 3, 6, 7, 8, 9, and 10 on the West side, and Nos. 3, 7, and 9 on the East side.

No. 3 East Diagonal Slope.

This slope is driven off No. 3 East level at a distance of 500 feet from the Main slope and a distance of 2,000 feet from the entrance of the mine, running north-east. Levels are turned off on the East side only, owing to a fault running parallel to the slope on the West side; these levels are in good coal ranging from 3 to 3½ feet thick.

The principal plant at this mine consists of a Sirocco fan with a capacity of 270,000 cubic feet of air a minute at a 5-inch water-gauge, driven by a 350-horse-power motor; one Rand compressor, 2,700 feet of air a minute, driven by a 500-horse-power motor; and one electric haulage-engine driven by a 750-horse-power motor.

When I made my inspection in December I measured 104,000 cubic feet of air a minute passing into the mine, divided into three splits.

In the split on the West side there was 14,000 cubic feet of air a minute passing for the use of forty-five men and four mules, or an average of 245 cubic feet of air a minute for each unit employed.

In No. 1 East split there was 13,800 cubic feet of air a minute passing for the use of thirty-two men and three mules, or an average of 336 cubic feet for each unit employed.

In No. 2 East split there was 12,800 cubic feet of air a minute passing for the use of thirty-eight men and four mules, or an average of 256 cubic feet of air a minute for each unit employed.

I found a small quantity of explosive gas in the following places in No. 7 mine: In No. 1 slant, No. 2 slant, and in No. 3 gateway, off No. 3 slant, No. 9 West level; also in inside slant, off No. 9 East level, and No. 1 slant, off No. 3 West level.

I found timbering and roadways in good condition. This mine is free from coal-dust.

Safety-lamps of the Wolf type are used exclusively in No. 7 mine; blasting is done with permitted explosives, and all shots fired by electric battery.

The total quantity of air passing into this mine in December was 104,000 cubic feet of air a minute, and the quantity passing into the several splits was 43,600 cubic feet a minute, making a loss in leakage of 60,400 cubic feet a minute through doors, stoppings, and old workings.

No. 8 Mine, Comox.

This mine has not been operated during the year. The plant is operated regularly at intervals to keep same in good operating condition.

The following are the official returns from the Comox Collieries for the year ending December 31st, 1917:—

Sales and Output for Year.	Coal.		Coke.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	224,126			31,559
" export to United States	77,668			
" " other countries	27,004			
Total sales		328,798		
Lost in washing	115,090			
Used in making coke	53,289			
Used under colliery boilers, etc	11,874		117	
Total for colliery use		180,253		117
		509,051		31,676
Stocks on hand first of year	3,549		2,743	
" last of year	2,455		1,473	
Difference taken from stock during year		1,094		1,270
Output of collieries for year		507,957		30,406

Number of Hands employed, Daily Wages paid, etc.

Character of Labour.	Underground.		Above Ground.		Totals.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	8		29		37	
Whites—Miners	192				192	
Miners' helpers						
Labourers	227		28		255	
Mechanics and skilled labour	9		29		38	
Boys						
Japanese	97		2		99	
Chinese	258		102		360	
Indians						
Totals	791		190		981	

Name of seams or pits—Comox mines.

Description of seams, tunnels, levels, shafts, etc., and number of same—Nos. 4, 5, and 6 shafts and Nos. 4 and 7 slopes.

EXTENSION COLLIERY.

Thos. Arthur Spruston, Manager, Nos. 1, 2, and 3 Mines.

The general supervision of these mines in this colliery is entrusted to Mr. Spruston, who has an overman in charge of each mine. This colliery has been working full time throughout the year.

At Extension the Nos. 1, 2, and 3 mines are connected by tunnel driven 14 x 17 feet in the clear, with a double track running practically the whole distance. A wood flume 18 x 18 inches is laid parallel to the tracks for the whole length of the tunnel to take care of the water from all of the mines, and maintains the roadway in the tunnel in a good state of repair. The underground employees are taken to and from their work in each respective mine along this tunnel, which is a little over a mile in length, by means of a "riding trip" of cars hauled by a Baldwin-Westinghouse electric locomotive.

A new wash-house 120 x 32 feet has been built at Extension during the year, and accommodates practically all the workmen in and around the Nos. 1, 2, and 3 mines. Great praise has been expressed by the workmen for the facilities afforded in the use of this wash-house to change their clothes on coming out of the mines.

Firebosses' and officials' rooms are isolated from the main building; steam heat is used at a normal temperature thoughout the building. The bath-room is situated in the centre of the two wings; twenty spray-baths and eight wash-basins are installed, everything conforming from a sanitary standpoint. The workmen's train from Ladysmith lands alongside of the wash-house, thus providing ample room for the workmen in getting on and off the train.

The power-house equipment consists of three 250-volt d.c. generators, operating in parallel. No. 1 is a Crocker-Wheeler generator of 112-k.w. capacity, direct-coupled to a 15 x 14 Ideal engine. No. 2 is a Westinghouse, 150-k.w. capacity, connected to a Fleming-Harrisburg compound engine, size 14 x 14 x 32. No. 3 is a General Electric, 150-k.w. capacity, direct-connected to a 16 x 16 Robb-Armstrong engine; power is supplied by three Goldie & McCulloch return-tubular boilers of 108.8-horse-power capacity each.

The washery at Ladysmith consists of three "washers" of the following dimensions: Nos. 1 and 2, diameter 8 feet 9 inches, depth 5 feet 6 inches; No. 3 diameter 8 feet 3 inches, depth 5 feet 9 inches; computed capacity of each washer 300 tons for twelve hours. During the year a Masco table 14 x 17 feet has been installed to recover a certain percentage of waste. A 40-k.w., 250-volt Allis-Chalmers-Bullock generator supplies power to operate this table, which is driven by a 25-horse-power General Electric type H. motor, which also supplies light for all purposes on the shipping wharf, transfer wharf, and around the plant. This generator is driven from the main Pelton wheel, which also supplies power to run the washery.

No. 1 or Tunnel Mine, Extension.

William Wilson, Overman; William Wesnedge, Albert Radford, John Greenhorn, David John Gordon, and John Davidson, Firebosses.

During the year the lower part of the Main and No. 2 slopes have been unwatered and development-work commenced. Two main levels have been turned off the Main slope, Nos. 4 and 5 East and a new slope, No. 3, on the West side. Nos. 5 and 6 East levels have been driven off No. 2 slope, which is worked on the long-wall system. On the West side of No. 2 slope there is only one level, No. 6 West, working at the present time, on the pillar-and-stall method. The haulage equipment in this mine consists of two Ottumwa electric hoists. On the Main slope, a distance of 4,000 feet, a 100-horse-power electric hoist driven by a Westinghouse motor is used to haul the coal out, where it is delivered on top of the slope to be handled by the electric locomotive. The coal is hauled up No. 2 slope by a 50-horse-power electric hoist driven by a General Electric motor.

Safety-lamps of the Wolf type and the Edison storage-battery electric lamps are used throughout the mine, and all blasting is done with permitted explosives, fired by electric battery.

The mine is ventilated by a Murphy type exhaust-fan with a capacity of 45,000 cubic feet of air a minute, against a 1.7-inch water-gauge, driven by a 40-horse-power Allis-Chalmers-Bullock motor.

When I made my inspection in December last I measured 27,650 cubic feet of air a minute passing into the mine, divided into two splits.

In the East side split there was 10,000 feet of air a minute passing for the use of twenty men and three mules, or an average of 344 cubic feet of air a minute for each unit employed.

In the West side split there was 7,500 cubic feet of air a minute passing for the use of eleven men, or an average of 681 cubic feet of air a minute for each unit employed.

I found this mine free from explosive gas; the timbering and roadways were in good condition. This mine is free from coal-dust.

No. 2 Mine, Extension.

Hugh McLean Davidson, Overman; John Joshua Jones, Joseph Mason, Robert Lecce Spruston, William Cosier, Joseph Watson, and George Rankin, Firebosses.

A large amount of recovery-work has been done in the sections of this mine that have been idle since the labour troubles in 1912. New roadways have been driven through the old gob, and where possible the old roadways cleaned up and retimbered. Some sections of the mine are worked on the pillar-and-stall method and some on the long-wall system; the coal varying from 2½ to 9 feet thick in the Slope district. Nos. 1, 2, 3, and 4 levels are working on the East side, and Nos. 1, 2, 2½, and 3 on the West side; only pillar-work is in operation on the West side.

During the year the lower part of the slope and No. 3 East level has been unwatered, and a large amount of material recovered which has been under water since 1912; this will open up quite a large area of workable territory of good coal.

Opening-up work in No. 4 East motor-road has been continued during the year. Nos. 1, 2, 17, and 21 inclines have been opened up on the rise side, and Nos. 1, 2, and 3 Diagonal slants have been opened up on the dip side of the level.

The haulage equipment of this mine consists of one 100-ton Ottumwa electric hoist, driven by a type M.D.S., General Electric motor, which hauls the coal from the slope. A 6-ton Morgan-Gardiner electric locomotive is used to haul the coal from No. 4 East district.

The pumping equipment consists of a 5-stage Mather & Platt pattern turbine-pump, 375 gallons a minute capacity, at a 250-foot head, running 1,400 r.p.m., driven by a 75-horse-power, type D.S.C. General Electric motor; also a 3-stage Mather & Platt turbine-pump, 375 gallons a minute capacity, at a 225-foot head, running 175 r.p.m., belt-driven by a 50-horse-power, type S. Westinghouse motor. The water from No. 4 East level is dealt with a single-stage Goulds centrifugal pump, 100 gallons a minute capacity, belt-driven by a 15-horse-power Imperial electric motor.

Safety-lamps of the Wolf type and the Edison electric lamps are used throughout the mine; all blasting is done with permitted explosives, fired by electric battery. This mine is ventilated by a Murphy fan of 40,000 cubic feet capacity, against a 1.9-inch water-gauge, and is driven by a 25-horse-power, type D.L.C. General Electric motor.

When I made my inspection in December I measured 24,500 cubic feet of air a minute passing into the mine, divided into three splits.

In the West side split there was 8,600 cubic feet of air a minute passing for the use of twenty-five men and five mules, or an average of 215 cubic feet of air a minute for each unit employed.

In No. 2 East split there was 6,000 cubic feet of air a minute passing for the use of fifteen men and two mules, or an average of 285 cubic feet of air a minute for each unit employed.

In No. 4 East split there was 9,900 cubic feet of air a minute passing for the use of twenty-six men and four mules, or an average of 255 cubic feet of air a minute for each unit employed.

I found timbering in fair condition, with the exception of several broken stringers in No. 1 West and No. 2 East levels, which required retimbering; roadways were in fair order.

I found this mine free from explosive gas. This mine is fairly free from coal-dust, with the exception of a portion of No. 1 West level.

No. 3 Mine, Extension.

Thomas Strang, Overman; George Smith, James Pollock Nimmo, Jr., James Nelson, Daniel Campbell, David Davidson, and Patrick Malone, Firebosses.

Operations in this mine have been carried out successfully during the year, which consists of pillar-and-stall work and the extraction of pillars. Nos. 4 and 5 West levels have been opened up off the motor-road, and are being driven with the object of recovering some pillars and

material that had been left in that section of the mine during the labour troubles, and maintaining a good return airway from the Slope district. Good work is being done in No. 4 West level, being well cogged and packed, and large round timbers used for roof-supports.

Two rock tunnels have been put through the "overlapping" fault off McCoy's incline, and has opened up an area of thin coal averaging 3 feet 6 inches thick, which is worked on the long-wall system. Malone's dip and drum road sections are worked on the pillar-and-stall method, the coal averaging from 4 to 9 feet thick. Nos. 10 and 14 inclines and the Heading district work consists of pillar-extraction.

The haulage equipment consists of a 50-horse-power Ottumwa electric hoist driven by a 27-horse-power General Electric motor. There are seven gravity-inclines in this mine, which in turn deliver the coal to the foot of the slope, where it is handled by the above-mentioned electric hoist and delivered to the electric locomotive.

The water in this mine is taken care of by a single-stage Goulds centrifugal pump, 100 gallons a minute capacity, driven by a 25-horse-power Allis-Chalmers-Bullock motor. This mine is ventilated by a Guibal fan with a capacity of 65,000 cubic feet of air a minute, against a 1.7-inch water-gauge.

Safety-lamps of the Wolf type and the Edison storage-battery electric lamp are used throughout the mine, and all blasting is done with permitted explosives, fired by electric battery.

When I made by last inspection in December I measured 21,000 cubic feet of air a minute passing into the mine, divided into two splits.

In No. 1 split there was 12,000 cubic feet of air a minute passing for the use of fifty men and seven mules, or an average of 169 cubic feet of air a minute for each unit employed.

In No. 2 split there was 9,000 cubic feet of air a minute passing for the use of thirty-five men and six mules, or an average of 170 cubic feet of air a minute for each unit employed.

I found no explosive gas in No. 3 mine; the timbering was in good condition, with the exception of one place in No. 12 incline, where the timbers were a little behind; the roadways were in fairly good order. This mine is practically free from coal-dust.

No. 4 Mine, Extension.

James Strang, Manager; David Martin, Overman; John Wright, Henry Winstanley, Albert Warren Courtenay, James Glen, John Barclay, and Thomas Wilson, Firebosses.

This mine is situated about one mile and a half from the Extension tunnel to the south, and is worked on the long-wall system, hand-mining being employed. This mine has been in continuous operation during the year. During the year the main East level has been cleaned up and retimbered, and the slopes on the East and West sides have been unwatered. Opening-up work on an extensive scale was carried out on the West side slope, Nos. 1, 2, and 3 levels being turned off on the East side, and Nos. 1, 2, and 3 levels on the West side, the coal being very thin, averaging about 2 feet 3 inches, and was worked on the long-wall system. Owing to the coal thinning out on the East and West sides and the seam being intermixed with several bands of dirt, it was deemed necessary during the latter part of the year to abandon this Slope district, together with the East side slope, which had run into barren ground.

Only pillar-extraction was in operation on the upper side of the main East and West levels at the time of my visit in December. The haulage equipment at this mine consists of two 50-horse-power Ottumwa electric hoists for hauling out of the slope. The mine is ventilated by a Guibal fan producing 60,000 cubic feet of air a minute, against a ½-inch water-gauge.

When I made my last inspection in December I measured 42,000 cubic feet of air a minute passing into the mine, divided into two splits.

In the East side split there was 24,000 cubic feet of air a minute passing for the use of twenty-six men and one mule, or an average of 827 cubic feet of air a minute for each unit employed.

In the West side split there was 18,000 cubic feet of air a minute passing for the use of thirty-eight men and three mules, or an average of 382 cubic feet of air a minute for each unit employed.

I found this mine free from explosive gas; the timbering and roadways were in good condition and the mine free from coal-dust.

I regret to state that this mine was closed down in the latter part of December owing to the recent heavy rains flooding the workings of the mine.

No. 5 Mine, South Wellington.

T. A. Spruston, Manager; William Clifford, Joseph Thompson, and Peter Carr, Firebosses.

This new mine is situated at South Wellington, about 600 yards south of the S.W. Depot, Devolpment-work started on the Main slope in September, 1917, and is down a distance of 700 feet, and, with the exception of about 100 feet of coal, has been in rock the whole distance. The first 200 feet of the slope is timbered with 12- x 12-inch square sets, 2-foot centres, and 14 feet wide; roof and sides lagged with 10- x 4-inch cedar lagging. The lower 500 feet is timbered with 12-inch round, peeled fir timbers, 3-foot centres, and lagged same as square sets.

Ventilation is produced by a 4-foot Stine fan, rope-driven by a 6 x 8 steam-engine. A turnout has been formed to drive towards the air-shaft which has already been sunk. A temporary plant has been installed, consisting of a portable boiler and a 10- x 14-inch steam hoisting-engine. Railway connection has been put in by the Esquimalt & Nanaimo Railway Company. Excavation and grading of the mine-yard is progressing. Excavation for the power-plant buildings, 112 x 54 feet, including boiler-house, power-house, machine-shop, hoist-house, and blacksmith-shop, is completed, and work begun on the foundation.

When I made my inspection in December I measured 3,500 cubic feet of air a minute passing into the mine for the use of six men, or an average of 583 cubic feet of air a minute for each unit employed.

I found timbering and roadways in good condition and the mine free from explosive gas. This mine is free from coal-dust.

The company has a rescue-station at Extension of frame construction, 24 x 53 feet, which contains a smoke-room, observation-room, work-room, and dressing-room fitted up with lockers, bath, and wash-basin. The equipment of the station consists of four 2-hour sets Draeger apparatus (which have been remodelled and brought up to date), one oxygen-pump, four oxygen-tanks, and four electric safety-lamps (Draeger type).

There has been some training done at the station in mine-rescue work during the year, seventeen men having obtained Government certificates of competency.

During the year no fatal or serious accidents have occurred in these mines, which speaks well for the officials and workmen in maintaining discipline, having for their motto "safety first."

The following are the official returns from the Extension Collieries for the year ending December 31st, 1917:—

Sales and Output for Year.	Coal.		Coke.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	136,609			
" export to United States	54,551			
" " other countries	11,207			
Total sales		202,367		
Lost in washing	67,617			
Used in making coke	1,000			
" under colliery boilers, etc., and employees' use	18,842			
Total for colliery use		87,459		
		289,826		
Stocks on hand first of year	1,325			
" last of year	890			
Difference taken from stock during year		435		
Output of colliery for year		289,391		

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	30		15		45	
Whites—Miners	252				252	
Miners' helpers	3				3	
Labourers	128		7		135	
Mechanics and skilled labour	24		21		45	
Boys						
Japanese						
Chinese—Labourers	5		41		46	
Indians						
Totals	442		84		526	

Name of seams or pits—Wellington Extension mine.
Description of seams, tunnels, levels, shafts, etc., and number of same—Nos. 1, 2, and 3 mines connected by main tunnel; No. 4 slope situated one mile south of main tunnel.

NICOLA-PRINCETON INSPECTION DISTRICT.

REPORT OF JOHN NEWTON, INSPECTOR.

I have the honour to submit my annual report as Inspector of Coal-mines for the Nicola-Princeton Inspection District for the year 1917.

In October of the present year I received instructions from Chief Inspector Wilkinson to include the Nicola-Princeton District in my inspectorate, owing to Inspector Strachan being removed to the Fernie District. Therefore, I beg to submit a report of this district for the months of October, November, and December, 1917. This district comprises Nos. 4, 4 East, 7, and 8 mines, operated by the Middlesboro Collieries, and No. 1 of the Merritt Collieries, all situated at a distance of one mile from the town of Merritt. No. 1 mine, Princeton, also No. 1 mine, Tulameen Collieries, are situated near the town of Princeton.

Middlesboro Collieries, Ltd.

Head Office—Vancouver, B.C.

Capital, $1,107,700.

Officers.	*Address.*
E. W. Hamber, President,	Vancouver, B.C.
G. S. Raphel, Vice-President,	Vancouver, B.C.
Thomas Sanderson, Managing Director and Secretary,	Vancouver, B.C.
C. M. O'Brian, Director and Treasurer,	Vancouver, B.C.
Robert Fairfoull, Mine Manager,	Middlesboro, B.C.

Value of plant, $250,000.

MIDDLESBORO COLLIERY.

Robert Fairfoull, Manager.

The Middlesboro Colliery, consisting of Nos. 2, 4, 4 East, and 7 mines, is operated by the Middlesboro Collieries, Limited, and is situated about one mile from the town of Merritt. A branch line of the Kettle Valley Railway about a mile long provides communication with both the main line of the Canadian Pacific Railway and the Boundary country.

The operating mines at present are No. 4, 4 East, and 7 mines, all operating in No. 4 seam of the Coal Gully or Lower series.

No. 4 Mine.

This mine, which includes the No. 6 mine, is reached by a crosscut tunnel cutting Nos. 5, 4, and 6 seams. Mining during the past year has been confined to the No. 4 seam. The seam is about 18 feet thick, pitching to the south at an angle of about 20 degrees. The method of working is pillar and stall. No development-work has been done in this mine during the past year, the mining of coal being confined to the extraction of pillars.

A Sheldon fan 8½ feet in diameter, driven by an Ideal engine, provides the ventilation. The fan is reversible and is capable of producing 90,000 cubic feet of air, against a 4-inch water-gauge.

On October 20th a fire was discovered in the rise workings, or what is known as the No. 3 incline. This incline is connected with the surface and about 200 feet above the lower levels. Owing to the caved ground and the fire obtaining oxygen from the surface, it is practically impossible to extinguish it. A complete line of stoppings are built to isolate the danger from the other parts of the mine, which is nearly all completed, and when finished will practically seal off this portion of the mine.

Safety-lamps of the Wolf type are used exclusively in this mine, and in addition a few electric head safety-lamps of the Edison type are used.

No. 4 East Mine.

This mine is also being operated in the No. 4 seam and is situated about 900 feet to the east of the tipple. The main dip has been driven to a point about 1,000 feet from the surface. The inclination of the seam is about 15 degrees to the east. Only development-work has been done so far in this mine. The method of working is pillar and stall.

No. 7 Mine.

This mine is situated in No. 4 seam, the entrance being 300 feet higher than the tipple. The Main slope has reached a point about 3,000 feet from the entrance, and is driven the whole distance in coal. The dip of the seam in this mine is to the south and at an angle of 25 degrees.

The method of working is pillar and stall. The size of the pillars are being gradually increased as the depth increases, and on the lower levels are 90 x 175 feet. Only the upper portions (about 8 feet thick) of the seam are being worked. Haulage is by chutes on the levels and compressed-air hoists to the surface, when the coal is lowered to the tipple by gravity-plane. The ventilation is produced by a fan of the Guibal type driven by compressed air. Fan is 52 inches in diameter and 24 inches wide, being built reversible.

No. 8 Mine.

Work in this mine has been confined to the driving of a slope and counter, which eventually will be connected to the No. 7 mine by a crosscut tunnel, and through which it is the intention to take the coal. This seam is about 6 feet thick.

The coal thorughout all the mines is mined by hand, Monobel and No. 7 coal-mining powders, with electric detonators, only being used. All the coal is brought to a common tipple in cars which have a capacity of 1.5 tons.

No additions have been made to the surface plants during the past year, the plant being at present the same as in the Minister of Mines' Report for the year 1916.

Certificated officials: Robert Fairfoull, manager of all the mines; James Fairfoull, overman; Matthew McKibben, fireman of No. 4 East mine.

On my last inspection I found 28,200 cubic feet of air a minute passing into the mine for the use of twenty men, or an average of 1,410 cubic feet of air for each unit employed.

I called the attention of the management to the system of ventilation that is adopted in this mine. The mine is fairly free from coal-dust. No explosive gas found; timbering and roadways good.

No. 4 MINE.

Certificated officials: Alexander Ewart, overman; William Halliman and George Hudson, firemen.

On my last inspection I found 23,000 cubic feet of air a minute passing into the mine for the use of twenty-seven men and four horses, or an average of 589 cubic feet of air for each unit employed.

The fumes coming off the fire area are not as strong as they were on my previous inspection. The mine is fairly free from coal-dust, with the exception of the main haulage-road. No explosive gas found; timbering and roadways good.

NOS. 7 AND 8 MINES.

Certificated officials: John McDonald, overman; Lewis Clark, George Walker, Thomas Rowbottom, and George Maxwell, firemen.

On my last inspection I found 16,000 cubic feet of air a minute passing into the mine for the use of thirty-six men and one horse, or an average of 410 cubic feet of air for each unit employed. No explosive gas found; timbering and roadways good.

On all dates I examined all record-books required under section 91, subsections (4) and (36) of the "Coal-mines Regulation Act," and found the requirements of the above Act carried out.

The following are the official returns of the Middlesboro Colliery for the year ending 1917:—

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	79,453			
" export to United States				
" " other countries				
Total sales		79,453		
Used in making coke				
Used under colliery boilers, etc.	4,172			
Total for colliery use		4,172		
		83,625		
Stocks on hand first of year	292			
" last of year	125			
Difference taken from stock during year		167		
Output of colliery for year		83,458		

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
		$		$		
Supervision and clerical assistance	11	.....	4	5.50	15	.....
Whites—Miners	53	4.00 - 8.00	.....	.....	53	.....
Miners' helpers	19	3.50 - 3.75	.....	.....	19	.....
Labourers	28	3.30 - 4.50	17	3.00 - 3.50	45	.....
Mechanics & skilled labour	.....	.....	15	3.75 - 5.00	15	.....
Boys	.....	.....	6	2.20 - 2.50	6	.....
Japanese	.....	.....	.....	.....	.....	.....
Chinese	.....	.....	.....	.....	.....	.....
Indians	.....	.....	.....	.....	.....	.....
Totals	111	.....	42	.....	153	.....

Name of seams or pits—Nos. 4, 6, 4 East, and 7 mines.

Description of seams, tunnels, levels, shafts, etc., and number of same—Nos. 4 and 6 mines: These seams are reached from the surface by a level tunnel passing through a part of No. 5 mine, then crosscut from No. 5 to No. 4 seams, and then from No. 4 to No. 6 seams. The work in No. 4 mine was confined to pillar-drawing, and repairs in No. 6. No. 4 East: Operating in No. 4 seam, the entrance to which is situated a short distance from the entrance to No. 4 mine. Operations in this mine were confined to driving the counter and main slopes. No. 7 mine: This mine also is operating in the No. 4 seam, on the opposite side of Coal gully to the other mines. Work in this mine has also been confined to development-work during the past year.

Description and length of tramway, plant, etc.—The main power plant is situated at the tipple, and consists of four return-tubular boilers, each 150 horse-power. A Canadian Rand compressor, with a capacity of 2,000 feet of free air a minute, supplies the power for underpound compressor, with a capacity of 2,000 feet of free air a minute, supplies the power for underground haulage, etc. A 27½-kw. generator is used for lighting purposes. Water is supplied for household, fire-protection, and steam-raising purposes from a pumping-station situated near the Coldwater river.

UNIVERSITY OF ILLINOIS LIBRARY

DEC 2 1920

Inland Coal and Coke Company, Ltd.

(Formerly the Coal Hill Syndicate.)

Head Office—Merritt, B.C.

Capital, $1,500,000.

Officers.	*Address.*
Geo. I. Wilson, President,	530 Seymour Street, Vancouver, B.C.
W. L. Nichol, Vice-President,	530 Seymour Street, Vancouver, B.C.
Joseph Graham, Vice-Pres. and Gen. Man.,	Merritt, B.C.
Andrew Bryden, Mine Manager,	Merritt, B.C.

Value of plant, $90,000.

COAL HILL COLLIERY.

The property of this company is situated south-west of the Middlesboro Colliery, at an elevation of 500 feet higher up.

No. 3 Mine.

Andrew McKendrick, Overman; Geo. Hudson, John T. Brown, Wm. Neilson, and Geo. Maxwell, Firebosses and Shotlighters.

No. 3 mine, which is the only one working during the year, consists of the Nos. 3 and 5 seams. The Main slope has been driven in the No. 3 seam for a distance of about 1,200 feet, practically reaching the boundary between this property and the Middlesboro Colliery. Crosscut tunnels at Nos. 3 East and 6 West on the No. 3 seam are driven to cut the No. 5 seam, which lies about 140 feet higher up in the measures.

The No. 3 seam is about 12 feet thick, sandstone roof, dip at an angle varying from 15 to 30 degrees to the south-east. The method of work is pillar and stall, and during the past year the work has been confined to the extraction of pillars.

The No. 5 seam is 5½ feet thick, practically the same pitch and direction as the No. 3 seam. The method of work is double-stall, stalls being driven up the full pitch from 20 to 30 feet wide, leaving pillars 30 feet thick. During the year the work in this seam has consisted of partially opening-up of stalls and partially from extraction of pillars.

In both seams the coal is pushed to the slope, and then hoisted by a 60-horse-power Ottumwa hoist to the surface.

The ventilation is produced by a Sheldon fan, single inlet, 6 feet diameter, producing 20,000 cubic feet of air a minute. Speed of fan, 300 revolutions a minute; water-gauge, 0.75 inch.

All the coal is mined by hand, and only those explosives appearing on the permitted list are used for blasting. All shots are fired with electric detonators and battery by competent persons appointed for the purpose as provided by section 91, Rule 12, of the Act. The cars, which have a capacity of almost a ton, are lowered from the slope entrance to the top of the gravity-tram by an 18-horse-power Beatty hoist, which hauls the empty trips back.

The gravity-tramway is a three-railed track with passing in the centre, 1,800 feet long, handling six 1-ton cars to the trip, on a 40-degree pitch, using a 1-inch steel rope. This delivers the cars to the tipple, where they are dumped on an ordinary tip-dump; the coal is then screened and picked before being delivered to the bins, which have a capacity of 500 tons.

The power plant at the mine consists of two Leonard type boilers, each 40 horse-power, which furnish steam for the fan, hoists, lighting, engine, and wash-house. An auxiliary plant at the tipple consists of a 25-horse-power boiler which furnishes steam for a small hoist used to haul cars on the tipple, also for the pump used to deilver water to the mine plant. The other surface equipment consists of machine-shop, carpenter and car-repair shops, and office buildings.

Only safety-lamps of the Wolf type are used in the mines, and these are cleaned and tested at the lamp-room near the entrance to the mine, and re-examined by the fireboss before being allowed into the mine.

The tipple is connected to the Kettle Valley Railway, which affords access to the Canadian Pacific Railway main line and the Boundary country.

This colliery was in operation until the beginning of March, when it was closed down for the remainder of the year.

The following are the official returns of the Inland Coal and Coke Company for the year ending December 31st, 1917:—

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	6,989			
" export to United States				
" " other countries				
Total sales		6,989		
Used in making coke				
" under colliery boilers, etc.	497			
Total for colliery use		497		
		7,486		
Stocks on hand first of year	190			
" last of year				
Difference taken from stock during year		190		
Output of colliery for year		7,296		

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
		$		$		$
Supervision and clerical assistance	5	5.00	2	5.00	7	5.00
Whites—Miners	40	4.50			40	4.50
Miners' helpers	32	3.25			32	3.25
Labourers	6	3.25	6	3.00	12	3.00
Mechanics and skilled labour			5	4.00	5	4.00
Boys						
Japanese						
Chinese						
Indians	4	3.25			4	3.25
Totals	87		13		100	

Name of seams or pits—Nos. 3 and 5 seams.

Description of seams, tunnels, levels, shafts, etc., and number of same—No. 3 seam is an average of 10 feet thick and quite clean for this field, with a good sandstone roof and floor. It is opened up with a slope from the surface some 1,500 feet long, with levels driven at right angles. The room system is used, with a small section of drawing pillars. No. 5 seam is 5½ feet thick, of bright block coal, lying 250 feet above No. 3, with which it is connected by a rock tunnel to No. 3 seam, and where all the coal is hoisted.

Description and length of tramway, plant, etc.—The three-rail tramway is 2,000 feet long to the tipple and bunkers on the railroad spur at the foot of the hill. A Stine wheel handles the trips of six loaded and six empty cars with the greatest ease, and is capable of handling

an output of 1,000 tons a day. The steam plants consist of two 40-horse-power boilers at the mine; one 14 horse-power at the tipple to handle the cars and pump water for mine and domestic use up on the hill, a head of 640 feet; and one 12-horse-power boiler on the Coldwater river, pumping water to the tipple water-tank. Owing to the rise in wages and material and inability to secure a reasonable price for the coal sold to the C.P.R. and K.V.R., the only market available to this field, the property was shut down early in March and remained closed for the year.

Pacific Coast Coal Syndicate.

(FORMERLY PACIFIC COAST COLLIERY CO. OF B.C.)

Head Office—Merritt, B.C.

Officers.	*Address.*
Geo. I. Wilson, President,	Vancouver, B.C.
W. L. Nichol, Vice-President,	Vancouver, B.C.
G. I. Wilson, Secretary-Treasurer,	Vancouver, B.C.
Andrew Bryden, Mine Manager,	Merritt, B.C.

This property is situated nearly west from the Middlesboro Colliery, and includes that area of land lying between Middlesboro and the Coldwater river.

Two shafts and a slope have been sunk on the property, but all the work during the past year has been confined to the No. 2 slope. This has now been sunk on the seam for about 800 feet, and three levels have been driven to the east for about 150 feet.

This thickness of the coal is about 5 feet, but owing to its proximity to the outcrop the thickness of the coal has been very irregular, and a considerable amount of trouble has been experienced with faulty ground. Only a small force of men has been employed and the progress made was necessarily slow.

This property was given up by the above syndicate in June, and was taken over by the Pacific Coast Colliery Company of British Columbia, under the charge of Howell John, overman. The only work done was keeping the water under control.

The following is the combined output of the colliery under the Pacific Coast Coal Syndicate and the Pacific Coast Colliery Company for the year ending December 31st, 1917:—

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada				
" export to United States				
" " other countries				
Total sales				
Used in making coke				
Used under colliery boilers, etc.	206			
Total for colliery use		206		
Stocks on hand first of year				
" last of year				
Difference { added to / taken from } stock during year				
Output of colliery for year		206		

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	1				1	
Whites—Miners	1				1	
Miners' helpers						
Labourers						
Mechanics and skilled labour			1		1	
Boys						
Japanese						
Chinese						
Indians						
Totals	2		1		3	

The following is the output made by Pacific Coal Syndicate:—

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada				
" export to United States				
" " other countries				
Total sales				
Used in making coke				
Used under colliery boilers, etc.	180			
Total for colliery use		180		
Stocks on hand first of year				
" last of year				
Difference { added to / taken from } stock during year				
Output of colliery for year		180		

Name of seams or pits—No. 1 slope.

Description of seams, tunnels, levels, shafts, etc., and number of same—Stope is down 565 feet in variable coal of an uncertain quality. Both roof and floor are of very soft material, requiring almost solid timbering to hold the smallest opening. When the coal is thick enough to mine it is of good quality, but owing to dislocation of the strata the results so far are not encouraging. The Pacific Coal Syndicate relinquished their bond on the property in May.

Description and length of tramway, plant, etc.—Two small boilers of 12 horse-power to run the hoist and Fairbanks pump, which takes care of water making in the mine.

The following is the output made by the Pacific Coast Colliery Company:—

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada				
" export to United States				
" " other countries				
Total sales				
Used in making coke				
Used under colliery boilers, etc	26			
Total for colliery use		26		
Stocks on hand first of year				
" last of year				
Difference { added to / taken from } stock during year				
Output of colliery for year		26		

Name of seams or pits—No. 1 slope and No. 2 shaft.

Description of seams, tunnels, levels, shafts, etc., and number of same—No. 1 slope, 8 x 10 feet; distance driven, 800 feet; running N. 51° E., pitching at 30 degrees. There are three levels turned off the slope; thickness of seam, 5 feet. No. 2 shaft, depth 147 feet; slope driven off bottom of shaft for 706 feet; thickness of seam, 18 feet.

Description and length of tramway, plant, etc.—Length of tramway on surface, 200 feet, 3-foot gauge. Plant consists of two 10-horse-power vertical boilers; one 7 x 10 double-drum hoisting-engine; two Fairbanks duplex pumps; and a Sheldon fan capable of delivering 12,000 cubic feet of air a minute.

Merritt Collieries, Ltd.

(OPERATING UNDER LEASE FROM THE DIAMOND VALE COLLIERY.)

Capital, $30,000.

Officers.	*Address.*
Robert Brown, President,	Merritt, B.C.
E. J. Grant, Vice-President,	Vancouver, B.C.
H. D. Green, Secretary,	Vancouver, B.C.
Robert Brown, Treasurer,	Merritt, B.C.
A. E. Smith, Superintendent,	Merritt, B.C.

Value of plant, $5,107.22.

DIAMOND VALE COLLIERY.

A. E. Smith, Manager; James McGrath, John Brown, and Hugh Osborne, Firebosses.

The Diamond Vale property lies on the other side of the Coldwater river from the Middlesboro Colliery, and practically consists of all the flats lying between the Coldwater and Nicola rivers, and is situated one mile up the valley from Merritt, B.C., on the Nicola Branch of the Kettle Valley Railway.

The mine is entered by a slope. Work was resumed in December, 1916, after a long period of idleness. The slope is down 600 feet. A level has been turned off this slope at the bottom to the right and is in about 350 feet. From a point 300 feet down the Main slope a Diagonal slope has been turned off to the left and is down about 600 feet. Levels have been turned off this slope.

The method of working is by pillar and stall, the pitch being great enough to require chutes in the stalls. The mine is being ventilated by a fan of the Guibal type. Safety-lamps of the Wolf pattern are used exclusively in this mine, with four Edison electric head-lamps. A little experimenting has been done with a pick-machine.

On my last inspection I found 11,880 cubic feet of air a minute passing into the mine for the use of twenty-seven men, or an average of 440 cubic feet of air for each unit employed.

No explosive gas found; timbering and roadways good. This mine is fairly free from coal-dust.

The following are the official returns from the Merritt Collieries, Limited, for year ending December 31st, 1917:—

Sales and Output for Year.	Coal.		Coke.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	12,649			
" export to United States				
" " other countries				
Total sales		12,649		
Waste used in making coke				
Used in making coke				
" under colliery boilers, etc	708			
Total for colliery use		708		
Stocks on hand first of year				
" last of year				
Difference added to stock during year				
Output of colliery for year		13,357		

Number of Hands employed, Daily Wages paid, etc.

Character of Labour.	Underground.		Above Ground.		Totals.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
		$		$		$
Supervision and clerical assistance	4	5.50	3	4.50	7	5.00
Whites—Miners	26	5.00			26	5.00
Miners' helpers						
Labourers	12	3.75	2	3.00	14	3.65
Mechanics and skilled labour	6	4.00			6	4.00
Boys	2	2.50	3	2.25	5	2.40
Japanese						
Chinese						
Indians						
Totals	50		8		58	

Name of seams or pits—No. 2 seam, No. 3 slope.
Description of seams, tunnels, levels, shafts, etc., and number of same—Slope.
Description and length of tramway, plant, etc.—Tramway, none. Plant: Two locomotive type of boilers and one upright hoisting-engine, 8 x 12 inches; Guibal type of fan driven by 8 x 10-inch compressor for driving coal-cutter and rock-drill; and small dynamo for lighting purposes.

Princeton Coal and Land Company, Ltd.

Head Office—15 Great St. Helens, London, E.C.

Capital, $1,000,000.

Officers.	*Address.*
A. St. George Hamersley, Chairman,	London, Eng.
E. S. Neave, Secretary,	London, Eng.
Ernest Waterman, General Manager,	Princeton, B.C.
Francis Glover, Manager,	Princeton, B.C.

Value of plant, $77,000.

PRINCETON COLLIERY.

Francis Glover, Manager; Andrew McKendrick, Overman; Robert Baxter, Robt. Gourley, Ben. J. Barlow, and Jas. G. Gaeter, Firebosses.

This company's property is situated near the town of Princeton, on the right-hand side of the Similkameen river, near its junction with the Tulameen, and is in the Similkameen Mining Division.

The Main slope at this mine is now sunk for a distance of 2,500 feet on the coal-seam, which is about 24 feet thick, and lies at an inclination of about 12 degrees. Owing to the thickness of the seam only the top 10½ feet of coal is being worked at present; the method of work is pillar and stall, pillars being left 50 feet square, stall driven 9 feet wide. During the past year about 50 per cent. of the coal was obtained from development; the remainder from the extraction of pillars.

The haulage is by small air-driven hoists in the inside workings and horse on the levels to the Main slope, where the cars are lifted to the surface by a steam-hoist situated outside the mine.

Surface.—The surface equipment consists of a tipple with link-belt screening plant made by the Link Belt Company, of Chicago, with a capacity of 500 tons a day. The coal is hauled out of the mine upon the tipple by a 50-horse-power Jenckes hoist, direct haulage. The cars, which are made at the mine, have a capacity of 1.5 tons and are equipped with Hadfield's wheels. They are dumped over a self-acting rotary dump of the Robison type. The coal then passes on to the link-belt shaker screen, and is made into three sizes—namely, slack, nut, and lump; which last, however, after passing over the picking-conveyor, is separated into lump and egg upon a bar screen placed over the bunkers. There are four compartments in the bunkers—slack, nut, egg, and lump. The coal passes from the bunkers up the link-belt loading-conveyor to the loading-chute, which is equipped for open or box cars. The car scales are Fairbanks, with a capacity of 80 tons, and the cars stand upon the scales while being loaded. The box-car loader is of the Victor type. The tipple is driven by a 50-horse-power link-belt vertical engine. The loading-conveyor is driven by a 30-horse-power link-belt vertical engine. The power plant consists of three boilers—two 75-horse-power Goldie-McCulloch return-tubular and one 50-horse-power Gray type. A 60-kw. 3-phase alternating-current dynamo, driven by a 90-horse-power high-speed Goldie-McCulloch engine, supplies light for the mine and the town of Princeton. There are two Canadian Rand air-compressors—one with a capacity of 750 cubic feet of air a minute and one with a capacity of 1,116 cubic feet of free air a minute. There is an excellent machine-

shop equipped with McDougall lathe, shaper, screening-machine, steam-hammer, etc.; also wash-house, powder-magazine, oil-houses, lamp-shop, and suitable offices. The fan is a Guibal type, made at the mine, with a capacity of 42,000 cubic feet of air a minute to $^{9}/_{10}$ inch, running at a speed of 140 revolutions a minute. A 30,000-gallon water-tank supplies the plant and is ample for fire-protection.

Underground.—The mine is approached through a covering of gravel (glacial wash) varying from 20 to 40 feet in thickness, and the fan is placed at the top of the ventilating-shaft, which is some 50 feet west of the main haulage slope. This slope is down 2,260 feet and is at present the main intake airway. The system of mining is the pillar and stall, which is worked in small panels, as the mine is subject to spontaneous combustion, and quite a large area of the top old workings are stopped off owing to fire. The panels are cut out into levels, inclines, rooms, and crosscuts, the average width of which is 15 feet, and the pillars left approximately 50 feet square. These pillars are extracted as soon as possible, and the whole of the worked-out district or panel is stopped off with concrete stoppings before any heating-up takes place. This has been found so far to be very satisfactory. The coal-seam is 24 feet thick, of which the top 10 feet is worked, and it lies at an inclination of 12 degrees. The haulage below is by means of small air-hoists and the McCinty system is now being installed. The coal is all machine-mined by machines of the post-puncher type, air-driven, except the pillar coal. The mine is free from coal-dust and is not very heavily watered.

This mine is worked exclusively with safety-lamps of the Wolf type, also twenty electric head-lamps of the Wico type are in use.

On my last inspection I found 42,000 cubic feet of air a minute passing into the mine, divided into two splits.

West Side Split.—There was 8,000 cubic feet of air a minute passing into the split for the use of fourteen men, or an average of 571 cubic feet of air for each unit employed.

East Side Split.—There was 22,000 cubic feet of air a minute passing into the split for the use of thirty-eight men, or an average of 600 cubic feet of air for each unit employed.

A quantity of explosive gas was found in the caved area in No. 5 West level; timbering and roadways good. The mine is fairly free from coal-dust.

The following are the official returns from the Princeton Coal and Land Company for the year ending December 31st, 1917:—

Sales and Output for Year.	Coal.		Coke.	
(Tons of 2,000 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	26,001			
" export to United States	13,813			
" " other countries				
Total sales		39,814		
Lost in washing	1,352			
Used under colliery boilers, etc.	5,347			
Total for colliery use		6,899		
Stocks on hand first of year	12			
" last of year	225			
Difference added to stock during year		213		
Output of colliery for year		46,926		

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
		$		$		
Supervision and clerical assistance	1	5.00	3	5.50	4	
Whites—Miners	16	4.20 - 8.00			16	
Miners' helpers						
Labourers	6	3.50 - 3.67	8	3.50 - 4.00	14	
Mechanics and skilled labour	26	3.50 - 3.67	7	3.75 - 4.20	33	
Boys			3	1.75 - 2.00	3	
Japanese						
Chinese						
Indians						
Totals	49		21		70	

Name of seams or pits—No. 1 slope.

Description of seams, tunnels, levels, shafts, etc., and number of same—The seam is 24 feet thick and dips at an inclination varying from 16 to 9 degrees. The top 9 feet is worked. The slope is down a distance of 2,500 feet, driven on the pitch of the seam, with main and counter levels on strike of the seam, and 500 to 1,000 feet respectively both east and west. There is an air-shaft down to the seam and has a depth of 60 feet. The coal is mined by machines, of which three are used.

Description and length of tramway, plant, etc.—The plant consists of tipple having a length of 250 feet, with bunkers having a capacity of 240 tons; two 75-horse-power and one 50-horse-power boilers; machine-shop with all necessary equipment.

Coalmont Collieries.

(FORMERLY COLUMBIA COAL AND COKE COMPANY, LTD.)

This property is situated in the Similkameen Mining Division between the fork of the Tulameen river and Granite creek. As has been mentioned in previous reports, all the operations were discontinued on the Tulameen side, or Fraser gulch, and in 1914 work was confined to the outcrops on the North fork of Granite creek.

This property was not operated during any part of year 1917.

Tulameen Coal Company.

(FORMERLY UNITED EMPIRE COLLIERY, PRINCETON, B.C.)

The Tulameen Coal Company's property is situated on Hunter creek, about a mile and a half from Princeton. The main tunnel is driven through the slide-rock to a point 900 feet inside, where it strikes the coal, and then continues on the coal for a distance of almost 500 feet.

TULAMEEN COLLIERY.

Hugh Gillispie, Overman.

On my last inspection I found only six men working underground doing repair-work. The ventilation was good, owing to the improvement in the return shaft.

MIDWAY COLLIERY.

This company's property is situated in the Greenwood Mining Division on the banks of the Kettle river, two miles and a half west of Midway.

This property was not operated during any part of years 1915, 1916, or 1917.

EAST KOOTENAY INSPECTION DISTRICT.

REPORT OF ROBERT STRACHAN, SENIOR, INSPECTOR.

I have the honour to submit the annual report of the inspection of the mines in the East Kootenay Inspection District for the year 1917.

Until within the year 1908 there was only one company actually producing coal in the East Kootenay District—that is, the Crow's Nest Pass Coal Company, although this company operated three separate collieries; but during that year two new companies began to produce—namely, the Hosmer Mines, Limited, at Hosmer, and the Corbin Coal and Coke Company, at Corbin. These new companies began to ship coal towards the latter part of 1908, and, as they had extensive and fully equipped collieries, became important factors in the production of the district.

The Hosmer Mines continued operations until about the middle of the year 1914, when all operations were suspended.

The Carbonado Collieries of the Crow's Nest Pass Coal Company at Morrissey closed down finally in 1909 and have not since been worked.

The district is divided into two separate Inspection Districts. The Southern East Kootenay District, which was during the year 1917 until end of August under Inspector T. H. Williams, with headquarters at Fernie, includes the Coal Creek Collieries and the Carbonado Collieries of the Crow's Nest Pass Coal Company, although this latter colliery has not been worked this past year.

The Northern East Kootenay District, which was until end of August under Inspector George O'Brien, with headquarters also at Fernie, includes the Michel Collieries of the Crow's Nest Pass Coal Company and the Corbin Colliery of the Corbin Coal and Coke Company.

The headquarters of both inspectorates is in the Government rescue-station at Fernie.

Owing to the resignations of George O'Brien and T. H. Williams, the former to take charge of a colliery on Vancouver island and the latter to take charge of Michel Colliery here, I was directed to take charge temporarily of both districts, assisted by Mr. Lancaster, who was appointed Inspector at the end of August. Later I was instructed to transfer my headquarters from Merritt to Fernie as senior Inspector in charge of the Crowsnest Pass District.

The mines operating during the year were the same as in 1916—namely, Coal Creek, Michel, and Corbin Collieries; the first two owned by the Crow's Nest Pass Coal Company, Limited, and the latter by the Corbin Coal and Coke Company, Limited, Spokane.

No attempt was made during the year to do any work in either the Morrissey mines, owned by the Crow's Nest Pass Coal Company, Limited, or the Hosmer mines of the Canadian Pacific Railway Natural Resources Department.

Attached is a list of the accidents reported during the year, resulting in thirty-five fatalities and fourteen seriously injured. Thirty-four of these fatalities were due to one accident, an explosion in No. 3 mine, Coal Creek, on April 5th; the other was due to haulage in Michel.

Coal Creek Colliery provides forty of the accidents, Michel seven, and Corbin two; apart from the explosion, nine were due to haulage, five to falls of coal, and one due to falling timber.

Compared with the previous year, our accident rate is greatly increased, due principally to the deplorable explosion in No. 3 mine, Coal Creek, the rate of increase with respect to all the injuries being 40 per cent. and fatalities 108 per cent.

In Coal Creek it will be noted that, apart from the explosion, there were no fatal accidents during the year, as compared with five the previous one. In Michel in 1916 there were twelve men killed by an explosion and no deaths due to other causes, and this year there is one fatal accident due to haulage.

The cause of the explosion of gas in No. 3 mine has not yet been determined; up to the end of the year twenty-eight of the thirty-four bodies have been recovered, leaving six still in the

mine. The work of recovering the mine has been steadily pursued, and I expect about the end of April we will have reached the faces of the main entries, where the remaining bodies are presumed to be. Data of the positions of the bodies found and general conditions are being taken for the purpose of assisting in determining the cause of the accident.

In No. 3 East, Michel Colliery, work has been steadily pursued in recovering this mine after the explosion of August 8th, 1916, but so far the body of Bratticeman Marmol has not been recovered. No. 13 East and West levels have now been repaired and cleaned up, with no signs of this body, and work has been commenced on No. 13 room, No. 6 East, which is the last of the places where the bratticeman was supposed to be.

No prosecutions were made during the year under the "Coal-mines Regulation Act," and only two under the special rules, in both cases for a breach of Special Rule 70 at Coal Creek Colliery, having damaged their safety-lamps in the mine. A list of these, with the penalty imposed, is attached.

Samples of mine-air for the purpose of analysis have been taken regularly during the year, at least twice in the main air-currents and once in the splits, and sent to the Department of Mines, Ottawa. A list of these results are attached.

Many samples were taken for other purposes, such as to find the conditions in the general body of the air-current at the working-faces, the increased percentage of gas in the air-current due to continuous working of the places more than eight hours, checking the Burrell gas-detector, and from blow-outs of gas in No. 1 East mine, Coal Creek.

The results of these have been that since September an order has been issued, as provided for by section 91, rule 4, requiring an interval of at least four hours between the finishing of work in the rooms or stalls by one shift and the commencement of work by the next. The results of this so far has been very satisfactory, as it allows an interval for the gas to be carried off produced by one shift mining before the following shift commences to work. It also allows of the settlement of the dust created by the previous shift.

A standard has also been established in all the mines for the withdrawal of the workmen when the percentage of inflammable gas in the general body of the air-current reaches a certain point. The standard set by the British "Coal-mines Act"—namely, 2½ per cent.—has been adopted as the point of withdrawal.

In Coal Creek, after considerable investigation, it has been fairly well established that a ¼-inch cap of gas on the Wolf safety-lamp comes very near this standard and is now recognized as the point for the withdrawal of the workmen. In Michel so far we have not definitely established the withdrawal point on the safety-lamp, but expect to do so in the near future, and in the meantime the Burrell gas-detector is being used and the above standard of withdrawal complied with.

The Burrell gas-detector is in use both at Coal Creek and Michel for the purpose of detecting smaller percentages of gas than can be ordinarily detected with the safety-lamp. The investigations along this line have definitely settled at Coal Creek Colliery that the gas-cap on the Wolf safety-lamp reflects a much higher percentage of gas than was formerly supposed; in fact, almost double.

With respect to coal-dust, fair progress has been made to load this out in most of the mines; barriers of shelves on which flue-dust has been spread have been erected for the purpose of preventing the propagation of an initial explosion, and lately a method of sprinkling the roadways and faces with water has been commenced.

While it will take some time to get an efficient method installed, there is no doubt that, unless this course is adopted, dangers from explosions of gas and dust are to be expected; therefore it is sincerely hoped that energetic steps will be taken not only to install such a system, but to utilize it and keep it efficient. It is generally recognized now that most of the destruction caused by an explosion, whatever its initial cause, is due to coal-dust, and no system of dealing with this danger is adequate which fails to cope with it at the working-faces, which are generally the principal source not only of the finest coal-dust, but also of most of the initial explosions.

From the amount of gas given off in these mines to the ton of coal produced, which is exceeded by very few in the world, the maintenance of large volumes of air, so as to keep the percentage of gas as low as possible, is absolutely necessary to afford the workmen a fair measure of safety.

In the latter part of the year trouble has been experienced with blow-outs of gas in the No. 1 East mine, Coal Creek, where in one case a blow-out displaced at least 140 tons of coal, mostly in the shape of very fine dust, creating a large cavity ahead of the working-face and projecting an enormous amount of methane into the air-current. An idea of the conditions which must have prevailed at the time of the blow-out can be conceived when seven hours later a sample of this gas showed 90.5 per cent. methane, with no traces of the higher hydrocarbons. Fortunately the disturbance in the overhead strata gave the workmen sufficient time to escape before the blow-out occurred.

No trouble has been experienced with very severe "bumps" during the latter part of the year, but, as no active mining was being done in the bump area, it is very hard to give an opinion whether trouble from this source is to be apprehended in the future or not. G. S. Rice, from the United States Bureau of Mines, made a report on this problem in the early part of the year.

The most important improvement during the year has been the replacing of the Wolf safety-lamp for general use by the Edison portable electric lamp, issued by the Edison Storage Battery Company and approved by the United States Bureau of Mines for use in coal-mines. With the exception of the firebosses and bratticemen, who still use the Wolf safety-lamp for testing purposes, all the workmen at both Coal Creek and Michel have been equipped with this lamp. A few of these are also in use at Corbin, and I am in hopes that only a very short time will elapse before they are in common use there also. The electric lamp, in addition to giving a greater margin of safety in gas or dust, affords a very much better light and should materially assist in reducing accidents from falls of roof or sides.

Trouble with fires in the mine has been experienced in Corbin during the year, where the 600 Left level on the No. 4 seam had to be sealed off from this cause. At this colliery the No. 1 seam is over 100 feet thick, and at least three levels of the No. 4 seam are on fire; the lower levels in the No. 4 seam are being flooded in an attempt to extinguish the fire there, but so far the indications are that some method of filling in the area left vacant by the extraction of coal with either fine sand, earth, or ashes containing at least less than 10 per cent. of carbonaceous matter will be the only means of ensuring some part of this coal for future use, and I think, in the interest of the conservation of our coalfields, it should be investigated.

A slight heating was observed in the No. 3 mine at Michel, but energetic measures were taken to cope with it, and so far no active fire has developed.

The amount of mine-rescue apparatus maintained at the collieries is similar to last year; in Michel the apparatus has been changed from negative to positive type; that at Corbin still remains in the negative type.

All the apparatus is of the Draeger make at Coal Creek; five of the 2-hour type and six of the ½-hour type, recharging-pump, and two pulmotors, while a fairly good supply of potash regenerators and oxygen is maintained. Michel, a similar amount, but one pulmotor; Corbin, two of the 2-hour type, recharging-pump, pulmotor, and an ample supply of potash cartridges and oxygen.

The lack of interest in maintaining efficiency in the use of the apparatus is very disappointing, and, although a very well-equipped station with an instructor in charge is maintained here at Fernie, only eight took a course in this work during the year, and these were from Coal Creek, no one taking a course from either Michel or Corbin. The reason for this is not far to seek; with no remuneration for the work, the expense incurred in coming to Fernie to take the course, from either Michel or Corbin, is prohibitive. Late in the year I sent the instructor to Michel to impart some instruction and assist in changing the apparatus from negative to positive type, and three took a course there, while twelve took sufficient lessons to make themselves acquainted with the new type.

Personally, I should like to suggest that the work of the instructor be made more elastic, as it is very desirable to have a uniform system of training, and that the training be maintained. At present we can only consider the station at Fernie here as an adjunct to the Coal Creek Colliery, for the reason that, while the workmen at Coal Creek can take a course without any expense or inconvenience, it costs about $30 for a workman in Michel and about $50 from Corbin.

The output of coal is less than last year, due principally to the stoppage of work at all the collieries during April, May, and June, incidental to the adjusting of an agreement between the companies and the workmen; and also at Coal Creek, due to No. 3 mine being cut off the producing list following the deplorable explosion of April 5th.

Labour has also been scarce during the year owing to the large number of workmen who have enlisted for military service overseas, resulting in the employment of a larger percentage of non-English-speaking workmen, and this seems to have contributed to some extent to our high accident rate, for, apart from the explosion in No. 3, Coal Creek, only two out of the fifteen recorded injured were English-speaking workmen. In this matter I regret to say that very little effort is made along the lines of educating these workmen in a field where the necessity for such is so great.

The reports from the collieries show 841 lb. of Polar Permitite, 5,947 lb. Monobel, 619 lb. dynamite, and 6,975 lb. of stumping-powder used for blasting purposes during the year.

In Coal Creek no explosives were used for blasting coal, and at Michel the only mine using them was No. 8; therefore the explosives used in Coal Creek and Michel, apart from No. 8 mine, were used for rock-work. The stumping-powder was used principally at the No. 3 mine, Corbin, for loosening the coal for the steam-shovel.

The total shots fired were 10,562, with about 0.1 per cent. miss-fires, and these were all at Corbin, there being fourteen miss-fires reported from there. The amount of coal produced per shot would be 52.2 tons, but this is not a fair estimate, as I have already pointed out very little coal was produced at either Coal Creek or Michel with explosives.

At Michel steps were taken during the year to ground all possible conductors of lightning or electricity leading into the mines, as this was one of the suggested causes of the explosion in No. 3 East mine in August, 1916, but no steps were taken at any of the other collieries along these lines.

I should like to suggest that, in future legislation, this as a possible source of danger in mines should be dealt with, and that proper lightning-arresters be erected at or near the entrance to all mines.

Copies of the general and special rules, plans of the mines, and copies of the "Systematic Timbering" order are posted at all the mines and maintained in fairly good condition.

In conclusion, I wish to thank the workmen and officials for the many courtesies extended to me while in charge of the district, and trust that in 1918, with their assistance and cordial co-operation, we will have a considerable reduction in the accident rate; it is only through this co-operation that such results can be obtained.

The following is a brief description of the mines working during the year, accompanied by the official returns.

Crow's Nest Pass Coal Company, Ltd.

Capital, $3,500,000.

Officers.	*Address.*
Elias Rogers, President,	Toronto, Ont.
E. C. Whitney, Vice-President,	Ottawa, Ont.
R. M. Young, Secretary,	Fernie, B.C.
Elias Rogers, Treasurer,	Toronto, Ont.
W. R. Wilson, General Manager,	Fernie, B.C.
Bernard Caufield, Colliery Manager, Coal Creek Collieries,	Fernie, B.C.
Thomas H. Williams, Colliery Manager, Michel Collieries,	Michel, B.C.

The above company is now operating the following extensive collieries on the western slope of the Rocky mountains in the East Kootenay District, namely:—

COAL CREEK COLLIERY, situated on Coal creek, about five miles from the town of Fernie, on a branch railway to the mines, connected at Fernie with the tracks of the Canadian Pacific Railway and also those of the Great Northern Railway.

CARBONADO COLLIERY, situated on Morrissey creek and connected by a branch railway with the Canadian Pacific Railway and the Great Northern Railway at Morrissey. The colliery is about fourteen miles from Fernie by rail in a south-easterly direction. This colliery has been shut down since 1909.

MICHEL COLLIERY, situated on both sides of Michel creek, on the line of the Canadian Pacific Railway, being twenty-three miles in a north-easterly direction from Fernie. This last colliery is in the Northern Inspection District.

The amount and disposition of this combined output of the company's collieries is fully shown in the following table:—

COMBINED RETURNS FROM CROW'S NEST PASS COAL CO.'S MINES FOR YEAR 1917.

SALES AND OUTPUT FOR YEAR.	COAL.		COKE.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	39,200		116,252	
" export to United States	166,253		12,711	
" " other countries				
Total sales		205,453		128,963
Used in making coke	194,451			
" under colliery boilers, etc.	50,776			
Total for colliery use		245,227		
		450,680		
Stocks on hand first of year	58		938	
" last of year	64		1,474	
Difference added to stock during year		6		536
Output of collieries for year		450,686		129,499

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage
Supervision and clerical assistance	46		14		60	
Whites—Miners	449				449	
Miners' helpers						
Labourers	120		279		399	
Mechanics and skilled labour	258		125		383	
Boys	14		21		35	
Japanese						
Chinese						
Indians						
Totals	887		439		1,326	

COAL CREEK COLLIERY.

Bernard Caufield, Manager; R. J. Brown, Assistant Manager.

This colliery, which is situated on both sides of Coal creek, is connected at Fernie by a five-mile branch of the Morrissey, Fernie & Michel Railway to both the Canadian Pacific and Great Northern Railways.

The mines in operation during the year were: On the north side of the creek, No. 1 North, No. B North, and No. 9; on the south side, No. 1 East, No. 1 South, and Nos. 2 and 3 mines.

The Nos. 1 North, East, and South are working the No. 1 seam, which varies from 15 to 40 feet thick; Nos. 2, 3, and 9 are working No. 2 seam, which varies from 5½ to 7 feet.

The method of work in all the mines is pillar and stall, or some modification of the same. The sizes of the pillars vary according to the seam, and generally the rule is to drive the entries in pairs, leaving as large a pillar between each pair as possible.

Practically all the work is development, and no attempt has been made during the year to extract any pillars. The direction of dip is generally east, and varies from 8 to 12 degrees.

The coal is handled in the inside of the mine, generally by horse or compressed-air hoist, and to the outside by either endless-rope hoist or compressed-air locomotive.

In the case of No. 1 South, No. 1 North, No. 1 East, and No. B North, gravity-inclines lower the coal to the level of the tipple, and from there it is taken by either compressed-air or steam locomotives to the tipple. The tipple, which is of steel construction, is 840 feet long and extends right across the valley, and is very well equipped to handle a large output.

Two separate and independent dumps, each driven by electric motors, dump the coal on to a feed-conveyor which supplies the shaking screens; here the slack is separated, going into a bunker, from which it is drawn to load open cars, and taken to Fernie to supply the coke-ovens. The lump coal is delivered to the picking-tables, where all the foreign matter is taken out.

Provision is made for loading into either open or box cars, two of Smith hydraulic box-car loaders providing an easy means, with the minimum of breakage of the coal in loading these cars.

The main power plant is situated on the north side of the creek and consists of fourteen boilers, having a total of 1,600 horse-power, while an auxiliary plant on the south side provides 605 horse-power. Three air-compressors provide a total capacity of 6,600 cubic feet of free air a minute, compressed to 100 lb. to the square inch, for the use of hoists, pumps, etc., inside the mine. A high-pressure compressor with a capacity of 1,346 cubic feet of free air a minute, compressing to 1,100 lb. to the square inch, supplies the power for the compressed-air locomotives. Electric power, which is used for motors on the tipple, fans, and lighting purposes, is supplied by two separate Robb-Armstrong engines, 20 x 20 inches, each of which drives two 400-ampere, 250-volt generators, and also one Crocker-Wheeler 279-ampere, 220-volt generator.

A very complete and well-equipped lamp-room is provided, and, as I have already mentioned, during the year, owing to the change from the Wolf safety-lamp to the Edison electric lamp, it was necessary to completely change the equipment, and it reflects great credit that this change was accomplished without any loss of time to the workmen and very little inconvenience.

Change-room and wash-house accommodation is provided for 950 workmen, the lockers all being of the steel-lath type, each workman being provided with wash-basin and he provides his own soap and towel.

All the horses are brought out of the mines at the end of the shift, and three large stables provide accommodation for about 140 horses. Adequate machine, blacksmith, carpenter, and locomotive repair-shops are maintained at the mines, in addition to those at Fernie for repairing and maintaining the plant, and also large and commodious offices and warehouses built of hollow concrete blocks.

A large number of workmen's houses have been erected at Coal Creek for the convenience of the workers, and a very good train service is maintained with the town of Fernie, where the remainder of the workmen reside and the principal offices of the company are situated.

No. 1 NORTH MINE.

Joe Worthington, Overman; Thos. Tully, Edward Routledge, and Matthew Turnbull, Firebosses.

This mine, which is situated about 300 feet higher and 2,000 feet west of the tipple, is driven 6,000 feet into the mountain on the north side of the creek, working the western part of the Old No. 1 seam, and owing to faults has been mostly exploratory work during the year.

Ventilation, which is produced by a small 2- x 5-foot fan of the Guibal type, driven by belt from a 30-horse-power motor, provides about 27,000 cubic feet of air a minute for the use of thirty-one men and five horses; the speed of the fan being 184 revolutions a minute, and motor 1,025, with a water-gauge of 1.3 inches.

Within the last four months we have twice found small quantities of explosive gas, mostly in small feeders in the roof. Generally the ventilation has been fairly good, and most of the mine is moist, small quantities of dust being found generally at the working-faces.

No. 9 Mine.

Robert Fowler, Fireboss.

No. 9 mine was abandoned some years ago; work for the purpose of reopening it has been carried on all year with a force of about five men, but very little coal, except such obtained in the course of the repair-work, was produced. The general conditions have been very good, and while small percentages of gas have been observed in the air-current, no explosive gas has been observed.

Ventilation, which is produced by a 16-foot diameter fan of the Guibal type, driven by belt from a 16- x 18-inch steam-engine, measured on the intake 8,000 cubic feet a minute for the use of five men and one horse. This fan is capable of producing a greater quantity of air, but this amount generally keeps the mine fairly clear. The speed of the fan is 60 revolutions a minute; engine 38, with a water-gauge of $^{9}/_{10}$ inch.

B North Mine.

William Commons, Overman; James White, Evan Jones, and Herbert Parsons, Firebosses.

This mine, the only one working on the B seam, which is higher up in the series of coal-seams than either Nos. 1 or 2, is situated 1,800 feet east of and 200 feet higher than the tipple. The seam is about 10 feet thick, but so far only the upper 5 feet is being worked. The roads are driven partially in both parts of the seam, the coal produced in the lower part being used at the colliery boilers.

The ventilation, which is produced by a 3- x 10-foot double-inlet, reversible Brazil fan, driven by belt from a 30-horse-power Westinghouse motor, produces about 42,000 cubic feet of air a minute for the use of fifty-eight men and six horses; the speed of the fan being 150 revolutions a minute, and the motor 1,050, with a water-gauge of $^{8}/_{10}$ inch.

Explosive gas has been found at least four times during the last four months, and quite a large percentage of gas has been recorded in the air-current, indicating the necessity of having larger quantities of air circulated, so as to effect a considerable reduction in these percentages, especially in a mine where the haulage is in the return airway.

The timbering at the faces was generally good and the roadways were kept in fairly good condition, while an ample supply of timber seemed to be kept convenient for the workmen. The mine, especially on the main roadways, is fairly damp, but steps should be taken to cope with the coal-dust in and around the working-faces.

No. 1 South Mine.

Frank Landers, Overman; William Stockwell, William Hynds, John Strachan, James Taylor, and William Morgan, Firebosses.

Situated about 200 feet higher and half a mile west of the tipple, this mine works the No. 1 seam in the west portion of the mountains on the south side of the creek. It has now been driven in for a distance of about 4,500 feet; so far no pillars have been drawn.

Ventilation is produced by an 8- x 3-foot 4-inch fan driven by a belt from a 40-horse-power motor, and at the time of my last inspection was producing 36,000 cubic feet of air a minute for the use of sixty-six men and ten horses. Speed of fan, 265 revolutions a minute; motor, 765 revolutions a minute; water-gauge, 2.7 inches.

During the last four months explosive gas has been found in this mine every time we inspected it, and in some cases in at least four different places, while very large percentages have been recorded in the air-currents. The conditions under which this mine is worked, leaving a large amount of very tender coal and foreign matter, locally termed "rashings," overhead, with

the slight or heavy "bumps" which cause this material to run, leaves large cavities which fill up with methane, running in some cases to 50 and 60 per cent. When this running or caving occurs it is no unusual occurrence for large bodies of gas to be brought down into the air-current, which creates a very dangerous condition. Very close supervision is necessary under such conditions, so as to protect the workmen.

The mine has generally been very well timbered, and while there has on occasions been a scarcity of timber, I have not found any workmen actually without the necessary amount to protect them.

In regard to dust, as is to be expected from the conditions I have already described, this mine is very dusty, and it means continual loading-out of coal-dust; in addition, barriers consisting of flue-dust have been erected throughout the mine to prevent the spread of an initial explosion, should such unfortunately occur. A system of treating the roadways and working-faces with water has also been promised, and should be a great factor in reducing the dangers from this cause.

With about sixteen working-places on the air-current, the amount of gas given off is such that either a very much greater amount of ventilation will be necessary to reduce the percentage of gas or the air-current will require to be split, because we are rapidly coming to the conclusion that in mines like this or No. 1 East, and under the conditions which they are operating, about eight working-places are sufficient on an air-current.

No. 1 East Mine.

John Caufield, Overman; Harry Dunlop, James Duncan, Thos. Reed, James Maltman, and John Mawson, Firebosses.

Working the eastern portion of the No. 1 seam, this mine is situated 800 feet east of and 90 feet higher than the tipple. The haulage from the inside to the tipple is by endless-rope, bogie system, with trips of three cars.

This mine, which was laid out on a very extensive plan, suffered considerably from "bumps" in the end of 1916, and between trouble of securing sufficient labour, explosion in No. 3 mine, and stoppages due to adjustment of agreement, very little has been done to reopen the portion wrecked from that cause during the year. The only portion working has been the No. 10 East slope, and probably owing to the breaking of the strata by the "bumps" considerable trouble has been experienced in maintaining sufficient ventilation in this district.

Explosive gas and high percentages have been very common until lately, when the air-current was split, affording separate air-currents for the North and South splits, with about an average of eight places on each split. A great deal of work was also accomplished on the stopping in the shape of erecting permanent stopping, either of wooden blocks or concrete, and in making a new airway.

Ventilation, which is produced by a double-inlet, reversible Wilson fan driven by belt from a 125-horse-power steam engine, measured at the time of my last inspection 140,000 cubic feet of air a minute for the use of thirty-nine men and six horses. The speed of the fan was 124 revolutions a minute, and the engine the same, while the water-gauge showed 3.5 inches.

As I have already mentioned, there are two splits—namely, the North split, with 32,800 cubic feet a minute for the use of twenty men and three horses, and the South split, with 30,000 cubic feet a minute for nineteen men and three horses.

All the working-places and roadways were very well timbered, and generally the mine was very good in this respect, while an ample supply of mine-timber seemed to be kept convenient for the miners.

The conditions in this mine with respect to dust are very similar to those already mentioned in No. 1 South, and in the last two months steps have been taken to install a system of sprinkling the roads with water, which is to be extended to the working-faces. It will take some time to get an efficient arrangement installed, but it will certainly reduce to a great extent the dangers from coal-dust.

In November trouble was experienced with a blow-out of gas in the No. 3 North room in this mine, as already mentioned, and everything points out that it is absolutely necessary to circulate great quantities of air, take active measures to deal with the coal-dust, and have strict discipline in a mine with so many sources of danger.

No. 2 Mine.

Carmichael McNay, Overman; Jas. P. Bushell, Herbert Lanfear, and Walter Clarkstone, Firebosses.

This mine, situated on the south side of the creek and on the same level as the tipple, is one of the oldest mines in the camp. All the old workings have been gradually cut off and the recent or new workings are all practically in the shape of development, having reached a distance of 6,700 feet from the outside.

Ventilation, which is produced by a double-inlet, reversible fan of the Wilson type, measured 37,700 feet a minute for the use of forty-five men and seven horses. Speed of fan was 120 revolutions a minute, with a water-gauge of 2.8 inches.

While the general conditions as to ventilation have been fairly good in this mine, within the last four months we have found explosive gas in this mine five times, generally in small cavities in the roof. Timbering at the faces and the roadways has been fairly good, and a fairly good supply of timber seems to be kept convenient for the workmen. In some places treatment is required for the coal-dust, although the haulage-road is fairly clear of same.

No. 3 Mine.

John Biggs, Overman; John Henney, William A. Brown, and R. S. Phillips, Firebosses.

This mine is working the eastern portion of the No. 2 seam, on the south side of the creek, and is reached by a slope 2,250 feet long, driven down the full pitch of the seam, averaging about 10 degrees.

Since the deplorable explosion which occurred in this mine on April 5th last there has been no active mining of coal, all the work being in the way of repairing the mine. This work has now reached 447 feet inside No. 6 incline, or within about 1,000 feet of the face of the main levels. The work is certainly being very well done, and flue-dust zones to prevent the spread of an explosion have been installed, while a watering system to deal further with the coal-dust is at present partially installed.

The mine is still ventilated with one split, but an overcast is being constructed to make two or probably three splits. The ventilation, which is created by a fan similar to that of Nos. 2 and 1 East, was producing at the last inspection 56,700 cubic feet of air a minute for the use of thirty men and two horses. The speed of fan was 149 revolutions a minute, and the engine 112; the water-gauge showed 3.4 inches. The mine is fairly free from coal-dust and conditions generally were very good.

The following are the official returns from the Coal Creek Collieries for the year ending December 31st, 1917:—

Sales and Output for Year.	Coal.		Coke.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	29,655		72,977	
" export to United States	144,462		1,540	
" " other countries				
Total sales		174,117		74,517
Used in making coke	114,346			
" under colliery boilers, etc.	35,061			
Total for colliery use		149,407		
		323,524		
Stocks on hand first of year	27		536	
" last of year	64		1,206	
Difference added to stock during year		37		670
Output of collieries for year		323,561		75,187

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC. (INCLUDING FERNIE COKE-OVENS).

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	33		8		41	
Whites—Miners	300				300	
Miners' helpers						
Labourers	81		168		249	
Mechanics and skilled labour	176		80		256	
Boys	8		11		19	
Japanese						
Chinese						
Indians						
Totals	598		267		865	

The following shows the number of days the Coal Creek Collieries worked each month during 1917:—

January (12 days' strike)	13½	September	21½
February	20½	October	19
March	22½	November	23
April (strike)	4	December (4 days idle account extreme weather)	17½
May "	..		
June "	..		
July	24	Total	191½
August	26		

Name of seams or pits—No. 1 North, No. 1 South, and No. 1 East, same seam; No. B; No. 2, No. 3, and No. 9 (not operated), same seam.

MICHEL COLLIERY.

Thomas H. Williams, Colliery Manager.

This colliery, operated by the Crow's Nest Pass Coal Company, Limited, is situated on both sides of Michel creek, and is about twenty-three miles north-east of Fernie. The mines operated during the year are as follows: Old No. 3 mine and No. 3 East mine on the South side, and New No. 8 mine on the North side.

The Canadian Pacific Crowsnest branch, which runs through the property, and the Great Northern Railway branch from Rexford afford shipping facilities for the coal. With the exception of about three months' stoppage during the adjustment of an agreement between the workmen and the employers, work was fairly steady during the year. The mines operated were Nos. 3, 3 East, and 8, until late in the year, when active production of coal ceased in No. 3, due principally to scarcity of labour.

No. 8 MINE.

William Whitehouse, Overman; Fred Hutchinson, Wm. Dunn, Thos. Baybutt, John Newman, and Thos. James, Firebosses.

This mine, generally termed New No. 8, in contradistinction to Old No. 8, which was sealed off for fire some years ago, is situated on north side of the creek and about 535 feet above the elevation of the tipple. A tunnel 400 feet long, driven at right angles to the strike of the seam, intersects the seam, and levels are driven east and west, from which three pairs of inclines have been driven. The coal-seam averages about 12 feet thick and is worked pillar and stall, stalls being about 14 feet wide and leaving pillars about 60 feet square.

The average pitch is about 15 degrees and the haulage is by horse to the inclines, compressed-air hoists lowering the loaded cars and bringing up the empty. On the Main level a compressed-air locomotive takes the trips to the top of a self-acting incline, where it is weighed and dumped into a coal-bin, from where it is drawn as required to load the skip which takes it to the level of the tipple. The skip is self-dumping; from here the coal is taken by the ordinary mine-cars, operated by an endless rope, to the tipple.

The ventilation is produced by a 4- x 8-foot reversible Murphy fan, driven by belt from a 40-horse-power compressed-air-driven engine. Measured during December the fan was producing 43,750 cubic feet of air a minute, with the fan running 135 revolutions a minute and a water-gauge of 0.45 inch. This is divided into three splits and the ventilation conditions have been very good.

At no time within the last four months have I found explosive gas, and the results of the analysis of samples taken show a very small percentage of gas in the air-current. There were 86 men and ten horses in the mine during the inspection.

Explosives of the permitted kind are used for blasting in this mine, under the supervision of competent persons appointed for the purpose as provided by the "Coal-mines Regulation Act." I have generally found the working-places very well timbered and a good supply of timber provided for the use of the miners. The roadway and airways are in good condition and the mine generally is fairly well free from coal-dust.

No. 3 East Mine.

Thos. Cunliffe, Overman; Ed. Heyes, Ben Ball, Alfred Ball, Andrew Frew, and Walter Almond, Firebosses.

Situated about 3,000 feet from the tipple and south-east of the same, this mine has been opened by a tunnel driven in the coal-seam. The Main slope is a continuation of the tunnel, and levels have been driven east and west about every 200 feet. The coal-seam, which averages about 10 feet thick, is worked by pillar-and-stall method, stalls being about 14 feet wide and pillars 60 feet square. The haulage is by horse to the slope, which is operated by a steam-hoist situated outside. From the tunnel entrance the coal is hauled by compressed-air locomotives to the tipple.

Ventilation is produced by a reversible Wilson fan, driven by rope from a 125-horse-power steam engine, and at the time of our last inspection was producing 69,300 cubic feet of air a minute for the use of sixty-two men and eight horses, with a water-gauge of 2 inches.

During the last four months I have only once found explosive gas, and the analysis of air samples taken show the air-current fairly free from high percentages. No explosives are used for blasting, and I have generally found the working-faces well timbered, while a plentiful supply of timber is provided for the use of the workmen. I have found the roadways and airways in good condition, but considerable coal-dust on the roof and sides and at the working-faces. The management has promised, and I may say has started, to install a sprinkling system to cope with this, and in the interest of the safety of the workmen it should be energetically followed up.

No. 3 Mine.

Matthew Littler, Overman.

Very little work, except the repairing of airways and reopening an old roadway where signs of heating were in evidence, has been done in this mine during the latter part of the year. The method of work and haulage is very similar to that of No. 3 East, this being another part of the same coal-seam.

The ventilation, which is produced by a 6- x 12-foot fan of the Guibal type, driven by a 125-horse-power steam-engine, measured 39,000 cubic feet a minute for the use of nine men, with a water-gauge of 1.2 inches. The roadways and airways are being maintained in very good condition, but there is a great deal of very inflammable coal-dust present. Mine-air samples analysed show this mine to give off considerably more gas than either of the other two.

All the coal from the south side of the creek, Nos. 3 and 3 East, is hauled up an incline to the tipple by a double endless-chain arrangement, which travels on car-wheels with axles which act as spreader-bars, as pushers, and as retarders of the mine-cars when on the incline. Tracks for the mine-cars are inside the tracks for the cross-bar wheels, and when the car is delivered

to the chain-haul the cross-bar moves up to the rear car-wheels and pushes the car up the incline to the dump. The dump, which is simply a continuation of the track, increases from 20 to 60 degrees pitch, and when the door of the car is open the coal discharged on to the dump; the cross-bar, continuing to travel around a large sprocket-wheel, pushes the empty car on to a swing-lift transfer, while the bar, following the sprocket-wheel, carries the rear end of the car with it over the top of the sprocket and on to the upper or overhead track, by which the car returns down the incline. On the North side, or No. 8 side, the cars are dumped by an automatic dump, and after being dumped a transfer arrangement allows them to return underneath the loaded track to the endless rope, which takes them to the coal-bin at the foot of No. 8 incline. The tipple is fully equipped with picking-tables and screens, and the slack is taken by a belt-conveyor to the slack-bins, from which it is drawn and hauled by small steam-locomotives to the coke-ovens.

All the machinery around the tipple is driven by electric motors, and two Smith gravity box-car loaders allow of the handling of lump coal with the minimum of breakages. Power is provided for hoists and pumps by two low-pressure compressors, one a Walker capable of handling 3,500 cubic feet of air a minute, the other a Rand with a capacity of 4,500 cubic feet, both compressing to 100 lb. to the square inch. A high-pressure Rand compressor, with a capacity of 1,450 cubic feet a minute, compressing to 1,200 lb., provides power for the compressed-air locomotives. Two generators of 250 kw. each provide the power for the motors on the tipple and light for the town of Michel, where the majority of the workmen reside.

A very large and commodious change-room and wash-house is provided for the workmen, besides machine, carpenter, car-repair, and other shops, also office and warehouse with the other necessary buildings for carrying on the work. Eleven boilers with a combined capacity of about 1,600 horse-power provides steam for the engines, both the boiler-room and the power plant being housed in fire-proof buildings of brick construction.

The following are the official returns from the Michel Colliery for the year ending December 31st, 1917:—

SALES AND OUTPUT FOR YEAR.	COAL.		COAL.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	9,545		43,275	
" export to United States	21,791		11,171	
" " other countries				
Total sales		31,336		54,446
Used in making coke	80,105			
" under colliery boilers, etc.	15,715			
Total for colliery use		95,820		
		127,156		
Stocks on hand first of year	31		402	
" last of year			268	
Difference taken from stock during year		31		134
Output of colliery for year		127,125		54,312

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC. (INCLUDING COKE-OVENS).

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	13		6		19	
Whites—Miners	149				149	
Miners' helpers						
Labourers	39		111		150	
Mechanics and skilled labour	82		45		127	
Boys	6		10		16	
Japanese						
Chinese						
Indians						
Totals	289		172		461	

The following shows the number of days Michel Colliery worked each month during 1917:—

January (10 days' strike)	15	September	23½
February	23	October	26
March	26½	November	26
April (strike)		December (4 days idle account extreme weather)	18
May „			
June „			
July	24	Total	209
August	27		

Name of seams or pits—New No. 3 (top section of No. 3 seam); Old No. 3 (lower section of No. 3 seam), operated only five months of year; New No. 8; Old No. 8 seam continued; No. 8 North (not operated during 1917).

Corbin Coal and Coke Company, Limited.

Head Office—Spokane, Wash.

Capital, $10,000,000.

Officers.	*Address.*
D. C. Corbin, President,	Spokane, Wash.
Austin Corbin, Second Vice-President,	New York, N.Y.
A. M. Allen, Secretary-Treasurer,	Spokane, Wash.
R. S. Ord, General Manager,	Spokane, Wash.
E. L. Warburton, Mine Manager,	Corbin, B.C.

Value of plant, $400,000.

CORBIN COLLIERY.

E. L. Warburton, Manager.

This colliery, which comprises Nos. 1, 3, and 4 mines, is situated on the East branch of the South fork of Michel creek, about fourteen miles from McGillivray Junction, on the Crowsnest branch of the Canadian Pacific Railway, and is connected to it by the Eastern British Columbia Railway.

During the year work was retarded by the stoppage incidental to the adjustment of an agreement between the workmen and the company, and later by severe bush fires which threatened the town of Corbin. The mines operated were: No. 4, working the 400, 500, and 600 levels; the No. 3, generally termed the "Big Showing"; and some development-work on the Nos. 2 and 5 seams, which turned out fairly promising.

No. 4 Mine.

Tom Brace, Overman; Thos. Bullen, Geo. Elmes, and Jas. Blair, Firebosses.

As mentioned in the earlier part of this report, the lower levels on this seam have been on fire for some time; therefore the levels operating were Nos. 400, 500, and 600. The method of work is generally to drive two or more levels from the outcrop, one series along the foot-wall, the other on the hanging-wall, and to connect these by crosscuts forming pillars about 50 feet square. All the workings are in coal, as the seam varies from 150 to 200 feet thick and lies almost perpendicular. Raises about 5 feet square connect one series of levels to the other and afford the means of access and ventilation. No attempt has been made during the year to extract any pillars.

Ventilation, which is produced by a 4- x 12-foot fan of the Guibal type, driven direct by a steam-engine, was producing at the time of our last inspection 30,000 cubic feet of air a minute for the use of thirty-two men and two horses, with a speed of 120 revolutions a minute and a water-gauge of 1 inch.

During the last four months we have found explosive gas twice, generally in small pockets in the roof coal above the timber; with this exception conditions have been very good. The mine is fairly well timbered and a plentiful supply of timber has been provided convenient for the workmen. The mine is fairly damp and both faces and roads are fairly free from coal-dust.

Haulage is by horse from the working-faces to the outside of the levels, and an outside incline permits of the dropping-down of the loads and hauling-up of the empty cars by a steam-hoist situated at the foot of the incline.

No. 3 Mine, or "Big Showing."

John Virgo, Fireboss.

Situated about two miles from and 800 feet above Corbin, this mine is operated as an open quarry. The method is to strip off the surface with steam-shovels, which load the debris into dump-cars for disposal, leaving the coal exposed for another shovel to load it into the railway-cars.

Four separate benches permit of the stripping and loading without interference, the railway into the pit being in the shape of a horse-shoe, the steam-shovel on the inside and the track on the outside. Both the shovel and the track are moved up as required. Where the coal is strong, holes are drilled and blasted to permit the shovel to operate.

A standard-gauge railway eight miles long switchbacks up to this mine, permits of a fairly rapid, if steep, grade, and in the past considerable trouble has been experienced in keeping the road free from snow, as the elevation is 6,200 feet above sea-level. To reduce trouble from this source, three turntables have been installed during the year at the head of each leg of the switch-back, so that the locomotive and plough can be turned without having to return to Corbin as previously.

The present pocket of coal being operated is 280 feet thick and is estimated to contain over 1,000,000 tons of coal, and during the past summer over 120,000 cubic feet of surface was removed; the ratio of coal exposed to surface removed is about 2 to 1.

It is needless to state that there are no gas, ventilation, or coal-dust problems here, and the work generally is very well supervised.

In the Nos. 2 and 5 seams, both of which average over 15 feet thick, some development has been done, but not sufficient to determine the complete thickness and extent of the seams. The intention is during the present year to further extend this work to supplement the present output.

The coal is hauled from the foot of No. 4 incline to the tipple by horse, and is either dumped into the storage-bins or on to the Marcus screen, to be cleaned and sorted as required.

The power plant consists of four boilers with a capacity of 300 horse-power, a 4-stage compressor for providing power for the compressed-air locomotives which formerly were used in hauling from the No. 1 seam, and a 120-kw. alternator which provides light for the works and the residences in the town of Corbin.

Blacksmith, machine, and car-repair shops are provided in addition to commodious ware-houses and offices. A lamp-room where the safety-lamps of the Wolf type are cleaned and repaired is fairly well equipped, and a fair-sized wash and change room is provided for the workmen.

The following are the official returns from the Corbin Colliery for the year 1917:—

SALES AND OUTPUT FOR YEAR.	COAL.		COAL.	
(Tons of 2,240 lb.)	Tons.	Tons.	Tons.	Tons.
Sold for consumption in Canada	34,597			
" export to United States	59,594			
" " other countries				
		94,191		
Total sales				
Used in making coke				
" under colliery boilers, etc	6,874			
Total for colliery use		6,874		
Stocks on hand first of year				
" last of year				
Difference { added to / taken from } stock during year				
Output of colliery for year		101,065		

NUMBER OF HANDS EMPLOYED, DAILY WAGES PAID, ETC.

CHARACTER OF LABOUR.	UNDERGROUND.		ABOVE GROUND.		TOTALS.	
	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.	No. employed.	Average Daily Wage.
Supervision and clerical assistance	2		9		11	
Whites—Miners	40				40	
Miners' helpers	4				4	
Labourers	6		60		66	
Mechanics and skilled labour	5		25		30	
Boys			4		4	
Japanese						
Chinese						
Indians						
Totals	57		98		155	

During 1917 three turntables were installed on hill track to "Big Showing" to facilitate ploughing out this line in winter and obviating the necessity of coming to Corbin to turn plough. Also a little development was done at prospecting in Nos. 2 and 5 mines with promising results, and it is expected they will be shipping coal during the present year. During the year fire was discovered in 600 Left level, No. 4 mine; work on this has not been sufficiently advanced to determine whether due to old fire in No. 1 mine or local; meantime it is sealed off. Work during the year was retarded by strike of miners, also by bush fire, which extended down the Flathead valley and threatened Corbin.

Name of seams or pits—Coal mountain, operated by No. 3 mine or "Big Showing," open-work, and No. 4 mine, underground workings.

Description of seams, tunnels, levels, shafts, etc., and number of same—Vertical, operated by rooms and crosscuts 11 x 12 feet underground; open-work, operated by steam-shovels, Shay engines, and main line equipment.

Description and length of tramway, plant, etc.—As per previous reports.

SUMMARY—TABLE SHOWING ACCIDENTS OCCURRING IN B.C. COLLIERIES IN TEN YEARS—1908 TO 1917.

For the year	1908.				1909.				1910.				1911.				1912.				1913.				1914.				1915.				1916.				1917.				Total for 10 years.			
Output of coal.....tons	2,109,387				2,400,600				3,139,235				2,193,062				3,025,709				2,570,760				1,810,967				1,972,580				2,485,580				2,398,715				24,106,593			
Number of persons employed.....	6,095				6,418				7,758				6,873				7,130				6,671				5,732				4,991				5,060				5,170				61,898			
Nature of Injury and Cause of Accident.	Fatal.	Serious.	Slight.	Total.	Fatal.	Serious.	Slight.	Total.	Fatal.	Serious.	Slight.	Total.	Fatal.	Serious.	Slight.	Total.	Fatal.	Serious.	Slight.	Total.	Fatal.	Serious.	Slight.	Total.	Fatal.	Serious.	Slight.	Total.	Fatal.	Serious.	Slight.	Total.	Fatal.	Serious.	Slight.	Total.	Fatal.	Serious.	Slight.	Total.	Fatal.	Serious.	Slight.	Total.
Gas explosions	1	..	8	9	32	..	7	39	.	..	6	6	..	..	10	10	7	2	3	12	..	..	13	13	..	1	2	3	23	2	8	33	12	.	..	12	38	..	..	38	113	5	57	175
Falls of coal	3	6	10	19	7	7	4	18	5	16	5	26	3	5	6	14	4	7	9	20	6	4	2	12	2	6	..	8	1	3	3	7	3	5	2	10	1	6	11	18	35	65	52	152
Falls of rock	5	10	7	22	6	13	9	28	8	15	12	35	..	5	24	29	5	9	10	24	11	9	3	23	2	14	..	16	4	7	4	15	7	6	7	20	2	4	14	20	50	92	90	232
Mine cars and horses	1	19	15	35	6	17	24	47	11	49	23	83	5	7	18	30	5	10	10	25	4	28	9	41	5	18	2	25	3	21	2	26	5	15	7	27	1	11	5	17	46	195	115	356
Powder, etc., explosion	..	2	4	6	1	1	3	5	1	1	3	5	..	1	2	3	2	1	..	3	..	2	..	2	2	3	..	5	..	..	1	1	..	..	1	1	..	..	1	1	6	11	15	32
Hoisting, ropes, etc	1	4	..	5	..	..	3	3	..	2	4	6	..	1	1	2	3	7	6	16	1	2	..	3	2	1	1	4	1	4	4	9	..	5	4	9	1	5	5	11	9	31	28	68
Mine timber	1	3	..	4	..	2	3	5	1	4	2	7	..	..	5	5	1	2	2	5	3	6	1	10	..	2	2	4	..	..	..	....	..	2	2	4	..	1	3	4	6	22	20	48
Underground, miscellaneous	4	2	5	11	2	2	2	6	1	4	4	9	4	..	5	9	..	4	4	8	..	..	6	6	3	..	..	3	19	1	3	23	1	3	5	9	1	2	5	8	35	18	39	92
On surface, miscellaneous	2	4	3	9	3	5	4	12	1	4	7	12	4	4	11	19	1	2	3	6	2	6	1	9	1	8	1	10	1	3	1	5	..	..	1	1	..	..	1	1	15	36	33	84
	18	50	52	120	57	47	59	163	28	95	66	189	16	23	82	121	28	44	47	119	27	57	35	119	17	53	8	78	52	41	26	119	28	36	29	93	44	29	45	118	315	475	449	1,239

ACCIDENTS IN BRITISH COLUMBIA COLLIERIES DURING 1917.

| Cause of Accident and Nature of Injury. | Name of Colliery. | | |

ANALYSES OF ACCIDENTS DURING YEAR 1917.

District.	No. of Accidents per 1,000 Men employed.				Tons of Coal mined per Accident.			
	Fatal.	Serious.	Slight.	Total.	Fatal.	Serious.	Slight.	Total.
East Kootenay	23.56	4.72	2.02	30.38	15,764	78,802	183,917	12,261
Coast	2.43	5.96	11.38	19.78	205,218	83,952	43,975	25,300
Total for Province	8.51	5.60	8.70	22.63	54,516	82,714	53,304	20,328

PER CAPITA PRODUCTION OF COLLIERIES.

District.	Gross Tons of Coal mined in 1917.	Total Number of Men employed by Producing Collieries.	Tons of Coal mined per Man employed at Collieries.	Number of Men employed Underground in Producing Collieries.	Tons of Coal mined per Man employed Underground.
East Kootenay	551,751	1,481	372	944	584
Coast	1,846,964	3,689	500	2,816	656
Total for Province	2,398,715	5,170	464	3,760	638

ACCIDENTS IN MINES DURING 1917.

COAL-MINES.

District.	Fatal.	Serious.	Slight.	Total.
East Kootenay	35	7	3	45
Nicola	..	..	20	20
Coast	9	22	22	53
Totals	44	29	45	118

METAL-MINES.

East Kootenay	..	1	..	1
West Kootenay	9	7	11	27
Similkameen	3	1	1	5
Coast	5	3	7	15
Totals	17	12	19	48
Grand totals of all accidents	61	41	64	166

DETAILED STATEMENT OF ACCIDENTS IN B.C. COLLIERIES DURING 1917.

COAST COLLIERIES.

REPORTED BY HENRY DEVLIN AND JOHN NEWTON, INSPECTORS.

No.	Colliery.	Date.	Name.	Occupation.	Details.
1	Nanaimo (W.F.C.)	Jan. 19	G. Gahoff	Timber-packer.	Crushed and amputated finger, caused by being crushed between two timbers.
2	Reserve (W.F.C.)	" 19	Jas. Smith	Miner	Broken leg, caused by post falling on it.
3	Comox No. 4 (C.C.)	Feb. 2	John Clarke	"	Left wrist sprained between car and post.
4	Comox No. 4 (C.C.)	" 2	Chow Lee	Rollerman	Crushed between car and roof, causing severe bruises and sprain of head, back, and face.
5	East Wellington (B.C.C.M.C.)	" 7	Charles Scott	Miner	Thumb and first joint of second finger of left hand taken off by being crushed between rope and pulley.
6	Morden (P.C.C.M.)	" 7	Con. Stolzenburg	Rope-rider	Struck by trip of cars, causing both legs to be broken.
7	Comox No. 4 (C.C.)	" 17	Sanziro Uno	Miner	Struck electric wires with his head, causing him to be electrocuted; fatal.
8	Comox No. 4 (C.C.)	" 17	Jung Sek Quoy	Miner's helper.	Lacerated wound of abdominal wall with bowel and omentum protruding, caused by being struck by passing trip of cars.
9	Reserve (W.F.C.)	" 20	James Wells	Labourer.	Struck by cone on the end of a rope, causing slight concussion and bruises.
10	Extension No. 4. (C.C.)	" 21	Thomas Greenwell.	Rope-rider	Inguinal hernia, caused by pushing a car.
11	Nanoose (N.C.C.)	May 9	Harry Zaccarello	Pusher.	Left leg broken by being crushed between car-bumper and post.
12	Extension No. 2. (C.C.)	" 14	John Harness	Miner	Rock fell from roof, cutting his head.
13	Comox No. 4 (C.C.)	" 22	Low Sing	"	Rock fell from roof, causing instantaneous death.
14	Comox No. 6 (C.C.)	June 3	George Bertram	Surveyor.	Died from carbon-monoxide poisoning, caused by explosion of gas.
15	Comox No. 6 (C.C.)	" 3	John D. Brough	Chainman	Same as above.
16	Comox No. 6 (C.C.)	" 3	Louis Murdock	Assistant [surveyor	Same as above.
17	Comox No. 6 (C.C.)	" 3	Frank Bobba	Fireboss	Same as above.
18	South Wellington (P.C.C.M.)	" 13	Geo. Tilley	Miner	Bruised back, caused by being squeezed between car and rib.
19	East Wellington (B.C.C.M.)	" 13	Thomas Reid	"	Struck by falling timber and rock, causing bruises to legs, chest, and broken seventh rib.
20	Nanaimo (W.F.C.)	" 14	John Waggett	"	Struck by falling prop, which fractured two ribs.
21	Reserve (W.F.C.)	July 4	Chas. Gowland	Pusher.	Two broken bones in ankle, caused by being locked in coils of rope.
22	Reserve (W.F.C.)	" 10	James Bellini	Miner	Rock fell from roof, causing cuts on head, arm, and back.
23	Comox No. 5 (C.C.)	" 21	John Resio	"	Fractured pelvis, caused by fall of overhanging coal and rock.
24	Comox No. 7 (C.C.)	" 25	Edward Towers	"	Rock fell from roof, causing fatal injuries.
25	Comox No. 4 (C.C.)	" 25	John Furbow	Fireboss	Rock fell from side, causing bruised and lacerated back, abdominal muscles, forearm, and hand.

ACCIDENTS IN COAST COLLIERIES—*Concluded.*

No.	Colliery.	Date.	Name.	Occupation.	Details.
26	Comox No. 4.... (C.C.)	July 25	John Potter.....	Driver.....	Fracture of two ribs, sprain of left shoulder and ankle, bruises and abrasion of left loin. Same accident as No. 25.
27	Comox No. 4.... (C.C.)	" 26	Billy Yuen (Oak)..	Miner	Simple fracture of right tibia and left fibula, caused by door slamming on same.
28	Extension No. 1.. (C.C.)	" 26	William Timmins..	"	Bruised left hip, caused by fall of rock
29	Comox No. 7.... (C.C.)	Aug. 8	Thomas Lumsden..	Rope-rider....	Run over by trip of loaded cars; fatal.
30	Nanaimo..... (W.F.C.)	" 11	John James	Miner	Left leg broken by fall of top coal.
31	Reserve..... (W.F.C.)	" 24	Geo. Ward.....	"	Cut on head and bruised foot, caused by fall of rock.
32	Comox No. 7.... (C.C.)	Sept. 7	Young Yen	"	Amputated and fractured fingers, caused by fall of rock.
33	Comox No. 5.... (C.C.)	" 11	Fong Jai Ming	Labourer.....	Injuries to head and back, caused by fall of rock.
34	Comox No. 4.... (C.C.)	" 14	Daniel Gilles.....	Timberman....	Compound fracture of left leg, severe bruises and sprain of back and hip, caused by fall of rock.
35	Nanaimo ..... (W.F.C.)	" 15	James Deres.....	Driver.....	Right ankle broken, caused by being crushed against stop-block.
36	Comox No. 4..... (C.C.)	" 17	Chew Jew.....	Pusher.....	Right hip dislocated by being crushed between car and rib.
37	Comox No. 4.... (C.C.)	" 28	I. Yamada.....	Miner	Fracture of right leg, caused by fall of rock.
38	Morden..... (P.C.C.M.)	Oct. 12	William Tait.....	"	Powder-burns over face, right shoulder, and arm, muscles bruised and lacerated, caused by returning too soon on shot.
39	Comox No. 7.... (C.C.)	" 17	Richard Donnelly..	"	Bruised and sprained left foot, caused by fall of rock.
40	Comox No. 4.... (C.C.)	" 18	John Simpson.....	Rope-rider....	Severe bruise and sprain of muscles of neck, caused by being crushed between top of car and timber.
41	Comox No. 5.... (C.C.)	Nov. 1	Charles Mussato...	Machine-helper	Both legs broken by being struck by bar of machine, which caught his legs against machine.
42	Comox No. 5.... (C.C.)	" 7	Alexander Bell	Miner	Fall of rock, causing simple fracture of right thigh.
43	Reserve ..... (W.F.C.)	" 8	Wm. McKie.....	"	Fractured left arm, caused by fall of rock.
44	Reserve ..... (W.F.C.)	" 10	Ed. Wilkinson	Fireboss	Fractured rib, caused by falling slip of rock.
45	Harewood..... (W.F.C.)	" 12	Jos. C. Hughes....	"	Right collar-bone broken while coupling two cars together.
46	Reserve ..... (W.F.C.)	" 19	Albert Crassetti....	Miner	Left leg broken by fall of coal.
47	Comox No. 4.... (C.C.)	" 26	Chow Wing.....	Tail-rope [coupler	Attempted to jump on trip of cars and was dragged some distance by trip, causing compound fracture of left leg.
48	Comox No. 7.... (C.C.)	Dec. 7	Thomas Monks....	Hoistman.....	Cut fingers, caused by being caught between end of crank-pin brasses and crank-pin disk.
49	Nanaimo .. ... (W.F.C.)	" 18	James Foy.....	Driver.....	Left leg broken by being crushed between timber and trap-door.
50	Comox No. 5.... (C.C.)	" 20	Hamilton Bate	Switchman....	Car of trip turned over, crushing his leg, causing compound fracture of right leg.
51	Comox No. 7.... (C.C.)	" 22	E. Kranovitch	Pusher..	Trampled over by mule, causing broken collar-bone.
52	Comox No. 4.... (C.C.)	" 31	Jew Long.....	Driver.....	Loaded car ran over his foot, crushing same.
53	Nanaimo..... (W.F.C.)	" 31	John McAllister...	Miner	Crushed by fall of rock, causing instant death.

NICOLA COLLIERIES.

REPORTED BY ROBERT STRACHAN AND JOHN NEWTON, INSPECTORS.

No.	Colliery.	Date.	Name.	Occupation.	Details.
54	Inland C. & C. Co.	Feb. 7	Antonio Coutlee....	Driver.....	Punctured wound in foot, caused by stepping on a nail.
55	Middlesboro .... (M.C.L.)	Mar. 20	John Danish	Rope-rider	Squeezed between car and post, causing a bruised back.
56	Middlesboro..... (M.C.L.)	April 9	Hugh Campbell....	Miner	Cut hand, caused by fall of coal.
57	Middlesboro .... (M.C.L.)	" 10	Alex. Nelson	Tipple-boy ...	Compound fracture of right thumb, caused by piece of coal falling on it.
58	Middlesboro .... (M.C.L.)	" 23	Eli Gates.....	Driver.....	Index finger bruised between door and piece of coal.
59	Middlesboro .... (M.C.L.)	" 28	Ernest Hendry.....	Loader.....	Broken toe, caused by fall of rock.
60	Middlesboro ... (M.C.L.)	May 4	Chas. Ostoff	"	Punctured wound in arm, caused by protruding nail.
61	Middlesboro .... (M.C.L.)	April 30	John Little.....	Driver.....	Right side of body bruised against side of working.
62	Merritt C.C.....	May 4	Joseph Limb.....	Miner	Finger crushed between two pieces of rock.
63	Merritt C.C.....	" 21	James Wheat.....	"	Bruised hip, caused by fall of clay.
64	Middlesboro .... (M.C.L.)	" 30	John Hoggan	Rope-rider	Right foot bruised by car-wheel.
65	Middlesboro .... (M.C.L.)	June 18	Gus Klemela	Miner	Bruised hip and leg, caused by fall of rock.
66	Middlesboro .... (M.C.L.)	July 1	R. S. Brown.....	Fireboss	Was removing rails and had a finger bruised and lacerated between same.
67	Merritt C.C.....	" 7	Wm. McCreight....	Miner	Chin and shoulder bruised by falling coal.
68	Middlesboro .... (M.C.L.)	" 23	George Walker.....	Fireboss	Bruised back and hip, caused by fall of coal.
69	Middlesboro .... (M.C.L.)	" 21	Wm. Cumberland..	Miner	Fell through scaffold against car, bruising and fracturing a rib.
70	Middlesboro .... (M.C.L.)	" 26	Henry Kinnear	"	Finger crushed between two pieces of rock.
71	Middlesboro ... (M.C.L.)	Aug. 4	Oscar Myers.....	"	Bruised and fractured ribs, caused by falling against a barrel.
72	Middlesboro .... (M.C.L.)	" 6	John Josit	"	Cut on right leg, caused by fall of rock.
73	Merritt C.C.....	Sept. 10	Andrew C. Hutton..	Labourer.....	Struck by falling piece of coal while loading box car.

EAST KOOTENAY COLLIERIES.

REPORTED BY T. H. WILLIAMS, GEORGE O'BRIEN, AND ROBERT STRACHAN, INSPECTORS.

74	Michel ..... (C.N.P.C.C.)	Feb. 17	R. Dametto.....	Driver.....	Crushed between car and centre post, fracturing his right leg.
75	Michel.. ..... (C.N.P.C.C.)	" 20	Sam Harmatuk	Rope-rider	Struck on head by falling timber, causing fracture of the base of skull and lower jaw, lacerated wound of right cheek, and bruised shoulder.
76	Coal Creek..... (C.N.P.C.C.)	" 26	Massino Maffioli....	Rock-miner ...	Fractured left ribs, caused by being crushed between side of car and timber.
77	Corbin..... .. (C.C. & C.C.)	Mar. 7	Andrew Kusica....	Miner	Crushed fingers of left hand, caused by falling rock.
78	Michel..... (C.N.P.C.C.)	" 24	J. Parkin.....	Hoistman.....	Left leg severely crushed (necessitating amputation) between bumpers of cars.

ACCIDENTS IN EAST KOOTENAY COLLIERIES—*Concluded.*

No.	Colliery.	Date.	Name.	Occupation.	Details.
79	Coal Creek ..... (C.N.P.C.C.)	April 5	W. R. Puckey	Fireboss	Killed by mine explosion.
80	Ditto	" 5	Hugh Melarkey	Pumpman	" "
81	"	" 5	James H. Machin ..	Rope-rider	" "
82	"	" 5	Albert Barton.....	Motorman	" "
83	"	" 5	Patrick Gormley....	Conductor.....	" "
84	"	" 5	Hugh J. McDougall	Driver.....	" "
85	"	" 5	Ven. Clarkstone....	"	" "
86	"	" 5	Thomas Evans	"	" "
87	"	" 5	George Richardson..	"	" "
88	"	" 5	Vittorio Bagioli....	"	" "
89	"	" 5	Augustin Leonard..	Miner	" "
90	"	" 5	Leonard Hector...	"	" "
91	"	" 5	William Brown	"	" "
92	"	" 5	Joe Bravin	"	" "
93	"	" 5	Auguste Redoulez..	"	" "
94	"	" 5	Frank Puillandre..	"	" "
95	"	" 5	Giovanni Giacomazzi	"	" "
96	"	" 5	Benardo Giacomazzi	"	" "
97	"	" 5	Joe Stelliga.....	"	" "
98	"	" 5	John Monks.....	"	" "
99	"	" 5	Edward Coates.....	"	" "
100	"	" 5	Gioachima Bosetti..	"	" "
101	"	" 5	William G. Clarke..	"	" "
102	"	" 5	Joseph Campbell...	"	" "
103	"	" 5	William Silverwood	"	" "
104	"	" 5	Harry Haydock....	"	" "
105	"	" 5	Joseph Atkinson...	"	" "
106	"	" 5	Jules Falip	"	" "
107	"	" 3	James Smith	"	" "
108	"	" 5	Frank Smith	"	" "
109	"	" 5	Henri Falip.....	"	" "
110	"	" 5	William Bird	"	" "
111	"	" 5	Firmin Benazeth...	"	" "
112	"	" 5	Thomas Checkley ..	"	" "
113	Michel ..... (C.N.P.C.C.)	July 14	Philip Bloha.....	Rope-rider	Killed by cave, caused by trip on which he was riding knocking out sets of timber.
114	Michel ..... (C.N.P.C.C.)	Aug. 27	G. Picco.....	Driver	Right leg broken by timber-tram striking it.
115	Coal Creek..... (C.N.P.C.C.)	Sept. 4	Tom Resko.....	"	Thrown off runaway horse, breaking his arm and causing a cut over right eye.
116	Michel ..... (C.N.P.C.C.)	Nov. 17	V. D. Agnola.....	Miner	Fracture of left thigh, caused by falling rock.
117	Coal Creek..... (C.N.P.C.C.)	Dec. 28	Nick Postaele.....	Timberman's [helper	Large scalp-wound and serious injuries to leg (necessitating amputation), caused by fall of coal.
118	Corbin..... (C.C. & C.C.)	" 31	Mike Kosiv.....	Miner	Bruised back, caused by fall of coal.

PROSECUTIONS UNDER "COAL-MINES REGULATION ACT."

As is incumbent upon the Inspector, he has laid information before the local Magistrates in the following cases of infractions by the workmen in the mines of the General and Special Rules and Regulations which are provided for the safety of all underground employees. The carelessness of one man endangers the lives of his fellow-workmen, and is treated as a criminal offence.

The following prosecutions have been brought during the year for the offences noted; the judgments given by the Magistrate being shown:—

Date.	Name.	Occupation.	Mine.	Offence charged.	Judgment.
Jan 11	A. Waugh	Miner	Nanaimo No. 1.	Returning on a missed-fire shot	Fined $5 and costs.
Mar. 12	Nich Bulato-[vitch	"	Extension No. 2	Having matches and tobacco in his possession while in a safety-lamp mine	Fined $10 and costs.
" 12	Edward Towers	"	" "	Same offence	Fined $5 and costs.
July 23	Felix Duchane.	"	" No. 3	Not timbering his working-place in accordance with Special Rules	Fined $10 and costs.
" 23	Joseph Kritz ..	"	" "	Charging a shot-hole before it was examined by shot-lighter	Fined $10 and costs.
Aug. 12	Mah Pat.....	"	Comox No. 4 ..	Same offence	Fined $5 and costs.
Sept. 21	Joe Maio.....	"	Coal Creek	Breaking safety-lamp.....	Fined $10 and costs.
Oct. 12	Fred. Luk.....	"	"	Same offence	Fined $10 and costs.
" 30	D. Caldwell ...	Shotlighter..	Morden.....	Firing a shot before it was safe to do so	Case dismissed.
Dec. 19	Dan Kopich ...	Miner	Comox No. 4..	Having matches in his possession while in a safety-lamp mine	Fined $10 and costs.
" 20	V. Tork	Haulageman.	Princeton	Having pipe and matches in his possession while underground	Fined $5 and costs.
" 29	Fred Vaga	Loader.....	Nanaimo No. 1	Same offence	Fined $10 and costs.

METALLIFEROUS MINES SHIPPING IN 1917.

CASSIAR.

ATLIN MINING DIVISION.

Mine or Group.	Locality.	Owner or Agent.	Address.	Character of Ore.
Engineer	Windy Arm	J. Alexander	Carcross	Gold.

SKEENA.

SKEENA MINING DIVISION.

Belmont Surf Inlet	Surf inlet	Belmont Surf Inlet Mines, Ltd.	Surf Inlet	Copper, gold, silver.
Esperanza	Alice arm	Pedro Salinas	Alice Arm	Gold, silver.
Granby Point	Anyox	Granby Cons. M. S. & P. Co.	Vancouver	"
Hidden Creek	"	" "	"	Gold, silver, copper.
Jitney		Frizzell	Prince Rupert	" "

QUEEN CHARLOTTE MINING DIVISION.

Campbell & Wilds	Jedway	Campbell & Wilds	Jedway	Copper.
Early Bird	Gold harbour	J. McLellan	Queen Charlotte	Gold.
Ikeda	Ikeda bay	S. J. Castleman	Vancouver	Gold, silver, copper.
Quinitsa				Copper.
Read Island	Jedway	J. Westerman	Jedway	Gold, silver, copper.
Tasu	Tasu harbour	T. E. Young	Victoria	" "

OMINECA MINING DIVISION.

Babine Bonanza	Babine mountains	J. Cronin	Smithers	Silver, lead.
Cap Group	Rocher Déboulé mount.	Magnus Johnson	Hazelton	Gold, silver, copper.
Copper Crown	20 miles south of Telkwa	Chisholm Bros	Telkwa	Silver, copper.
Copper Queen	Leach mountain	Fred Griffin	"	Gold, silver, copper.
Frisco	Legate creek	Wm. Tuttle	Pacific	Copper, silver.
Harvey	Babine range	P. V. Harvey	Smithers	Silver, copper.
Highland Boy	Skeena Crossing	H. E. Clement	Tramville	Gold, silver, copper.
M. & K.	Legate creek	M. Orr	Pacific	Silver, lead, copper.
Santa Maria	Howson basin	T. Jefferson	Telkwa	Silver, copper.
Silver Creek	Hudson Bay mountain	P. Schufer	Vancouver	Gold, silver, lead.
Silver Standard	Glen mountain	D. McLeod	"	Silver, lead, zinc.
Rocher Déboulé	Tramville	D. J. Williams	Tramville	Gold, silver, copper.
Victoria	Babine range	P. J. Higgins	Burke, Idaho	Silver, lead.

EAST KOOTENAY.

FORT STEELE MINING DIVISION.

Burton	Elko	A. T. Caldwell	Fort Steele	Copper.
Minnie	Black Currant creek	A. R. McGregor	Crawford Bay	Silver, lead.
Park	Marysville	W. W. Gifford	Spokane	"
Quantrell	Kimberley	E. E. Jones	Kimberley	"
Selkirk	Marysville	W. W. Gifford	Spokane	"
St. Eugene	Moyie	W. W. Lindsay	Kimberley	"
Sullivan	Kimberley	The Consolidated M. & S. Co.	"	Silver, lead, zinc.

WINDERMERE AND GOLDEN MINING DIVISIONS.

Copper Butte	Golden	C. R. L. Co.	Windermere	Silver, copper.
Couverapee	Field	W. J. van Houten	Vancouver	Silver, lead.
Isaac	Isaac creek	H. E. Forster	Wilmer	"
Lead Queen	Wilmer	J. M. McLeod	"	"
Monarch	Field	W. J. van Houten	Vancouver	Silver, lead, zinc.
Paradise	Toby creek	R. R. Bruce	Invermere	Silver, lead.
Silver Belt	Spring creek	F. C. Stockdale	"	Silver, copper.
Tennessee	Spruce Creek	J. W. Couver	Golden	Copper.

WEST KOOTENAY.

AINSWORTH MINING DIVISION.

Mine or Group.	Locality.	Owner or Agent.	Address.	Character of Ore.
Albion	Ainsworth	Leo Mining Co	Spokane	Silver, zinc.
Bell	Retallack	C. F. Caldwell	Kaslo	Zinc.
Bluebell	Riondel	S. S. Fowler	Riondel	Silver, lead.
Cork	Zwicky	W. H. Burgess	Kaslo	"
Flint	Kaslo creek	J. A. Carter	"	"
Florence	Ainsworth	F. R. Wolfe	Spokane	"
Gallagher	"	A. D. Wheeler	Ainsworth	"
Highland	"	Consolidated M. & S. Co	Trail	"
Little Phill	"	J. W. Smith	Ainsworth	"
Maestro	"	Consolidated M. & S. Co	Trail	"
Silver Hill	Crawford Bay	Silver Hill Mines, Ltd	Nelson	"
Silver Hoard	Ainsworth	W. S. Hawley	Spokane	"
Silver Queen	Duncan river	J. M. Miller	South Bellingham	Gold, silver, lead.
Spokane Trinket	Ainsworth	J. McDougall	Ainsworth	Silver, lead.
Sun				"
Utica Mines, Ltd	Kaslo	C. B. White	Kaslo	"
Whitewater	Whitewater	W. H. Burgess	"	Silver, lead, zinc.

SLOCAN MINING DIVISION.

Black Grouse	Carpenter creek	J. D. Ryan	Three Forks	Silver.
Bon Ton	Jackson basin	D. Brandon	Silverton	Silver, lead.
Caledonia				"
Daniel	Sandon	G. T. Gormley	Sandon	Silver, zinc.
Echo	Silverton	Echo Silver Lead Min. Co	Spokane	Silver, lead.
Freddie Lee	Sandon	M. McCune	Sandon	"
Galena Farm	Silverton	Galena Min. & Milling Co	Spokane	Silver, lead, zinc.
Gem	Carpenter creek	Frank Edwards	Sandon	Silver, lead.
Grey Copper	Slocan	J. Whittier	Vancouver	"
Hartney	New Denver	J. L. Lloyd	New Denver	"
Idaho-Alamo	"	Thos. Avison	"	Silver, lead, zinc.
Ivanhoe	Sandon	W. M. Bennett	Sandon	Silver, lead.
Lone Batchelor	Three Forks	A. McCorvie	"	"
Lucky Jim	Zincton	A. W. Allen	Victoria	Zinc, lead, silver.
Lucky Thought	Silverton	Consolidated M. & S. Co	Trail	Silver, lead, zinc.
Noonday	Sandon	J. B. White	Spokane	Silver, lead.
Number One	"	J. M. Harris	Sandon	"
Payne	"	W. H. Burgess	Kaslo	"
Queen Bess	"	C. Cunningham	Sandon	"
Rambler-Cariboo	"	W. A. Cameron	"	"
Reco	"	J. M. Harris	"	"
Ruth	"	J. Anderson	"	Silver, lead, zinc.
Standard	Silverton	Standard Silver Lead Mining Co.	Silverton	" "
Slocan Star	Sandon	O. V. White	Sandon	" "
Sovereign	"	C. Cunningham	"	Silver, lead.
Surprise	"	J. McFadden	"	Silver, lead, zinc.
Van-Roi	"	C. Cunningham	"	" "
Victoria	"	J. Worgan	"	Silver, lead.
Wonderful	"	C. Cunningham	"	"

SLOCAN CITY MINING DIVISION.

Black Prince	Slocan City	F. M. Black	Winnipeg	Silver, lead.
Enterprise	Ten-mile creek	S. S. Fowler	Riondel	"
Lily B	Slocan City	G. Long	Slocan City	"
Meteor	Lemon creek	G. H. Aylard	Victoria	Gold, silver.
Ottawa	Slocan City	Consolidated M. & S. Co	Trail	Silver.

NELSON MINING DIVISION.

Athabasca	Morning mountain	A. E. Rand	New Westminster	Gold.
California	Nelson	J. R. Cassin	Spokane	Gold, silver.
Emerald	Salmo	J. Waldbeser	Salmo	Silver, lead.
Eureka	Eagle creek	J. Bunyan	Nelson	Gold, silver, copper.
Granite-Poorman	Granite		Granite	Gold, silver.
H.B	Deer creek	W. G. Harris	Silverton	Zinc.
Molly Gibson	Kokanee creek	Consolidated M. & S. Co	Trail	Silver, lead.
Molly	Lost creek	H. C. Bennett	Nelson	Molybdenite.
Orinoco	Beasly	M. Egan	"	Silver, copper.
Pioneer	Salmo creek	E. Ballinger	Salmo	Gold, silver, lead.
Queen Victoria	Nelson	Canada Copper Corporation	Greenwood	Gold, silver, copper.
Rio Tinto	"			Silver, copper.
Silver Dollar	Salmo	L. R. Clubine	Salmo	Silver, lead.
Southern Bell	"	C. E. Wilson	"	"
Yankee Girl	Ymir	Hobson Silver Lead Co	Ymir	Gold, silver.

ARROW LAKE MINING DIVISION.

Mine or Group.	Locality.	Owner or Agent.	Address.	Character of Ore.
Millie Mack	Burton	H. E. Forster	Wilmer	Gold, silver, lead.

TRAIL CREEK MINING DIVISION.

Berlin	Grenville mountain	H. D. Griswold	Paulson	Gold, silver, copper.
Centre Star	Rossland	Consolidated M. & S. Co.	Rossland	" "
I.X.L.	"	J. R. Cranston	"	Gold, silver.
Le Roi	"	Consolidated M. & S. Co.	"	Gold, silver, copper.
Le Roi No. 2	"	Le Roi No. 2, Ltd.	"	" "
Mountain Chief	Renata	E. F. McDaniel	Renata	Silver, copper.
White Bear	Rossland	Consolidated M. & S. Co.	Rossland	Gold, silver, copper.

REVELSTOKE MINING DIVISION.

Lanark	Illecillewaet	W. B. Dornberg	Illecillewaet	Silver, lead.

TROUT LAKE AND LARDEAU MINING DIVISIONS.

Beatrice	Camborne	Manager	Camborne	Silver, lead.
Copper Chief	Trout creek	R. D. Featherstonhaugh	Trout Lake	"
Ethel	Trout lake	Silver Crown M. Co.	Spokane	"
Ferguson Mines	"	Ferguson Mines, Ltd.	Kaslo	Gold, lead, silver, zinc.
Fidelity	Gerrard	F. C. Elliott	Victoria	Gold, silver, lead.
Foggy Day	Trout lake	J. S. Lamphere	Trout Lake	Gold, silver.
Monte Cristo	Gerrard	"	"	Silver, lead.
Multiplex	Camborne	O. T. Bibb	Revelstoke	Gold, silver, lead.
Silver Queen	Lardeau	Conaway Mining Co.	So. Bellingham, Wash	Silver, lead.
Towser	Ferguson	J. F. Carey	Spokane	Gold, silver, lead.
Triune	"	R. H. Battey	Detroit, Minn.	" "
True Fissure	Trout lake	A. L. Houston	Nelson	Silver, lead, zinc.

BOUNDARY.

GRAND FORKS MINING DIVISION.

Carlton				Copper.
Emma	Coltern	Consolidated M. & S. Co.	Trail	Gold, silver, copper.
Union	Franklin camp	Lewis Johnson	Grand Forks	Gold, silver.

GREENWOOD MINING DIVISION.

B.C.	Eholt	Canada Copper Corporation, Ltd.	Greenwood	Gold, silver, copper.
Bell	Wallace mountain	F. F. Ketchum	Beaverdell	Silver, lead.
Big Copper	Copper camp	John Moran	Greenwood	Silver, copper.
Blue Jay				Gold.
Bounty Fraction	Beaverdell	I. H. Hallet	Greenwood	Silver.
Cordick				Silver, copper.
Elkhorn	Greenwood	George White	Greenwood	Gold, silver.
Granby	Phoenix	Granby M.S. & P. Co.	Vancouver	Gold, silver, copper.
King Solomon	Greenwood	D. C. Corbin	Spokane	" "
Kokomo	Wallace mountain	G. M. Barrett	Beaverdell	Silver, lead.
Mother Lode	Greenwood	Canada Copper Corporation, Ltd.	Greenwood	Gold, silver, copper.
Oro Denoro	"	" "	"	" "
Prince Henry	"	Prince Henry Mining Co.	"	Gold, silver, lead.
Rambler	"	W. H. Rambo	Beaverdell	Silver.
Sally	Wallace mountain	James Drum	"	Gold, silver, lead.
Sappho	Greenwood	C. E. Johnson	Greenwood	Silver, copper.
Standard Frac.	"	P. J. Kennedy	Beaverdell	Silver.
Sunset	"	New Dominion Copper Co., Ltd.	Greenwood	Gold, silver, copper.
Surprise No. 3	Skylark camp	Cunningham & Kane	Phoenix	Silver, copper.

OSOYOOS MINING DIVISION.

Dolphin	Keremeos	C. W. Jordan	Keremeos	Silver, copper.
Golconda	Osoyoos			Molybdenite.
Horn Silver	Similkameen	E. W. Condit	Similkameen	Gold, silver.
Nickel Plate	Hedley	Hedley Gold Mining Co.	Hedley	"

SIMILKAMEEN, NICOLA, AND VERNON MINING DIVISIONS.

Mine or Group.	Locality.	Owner or Agent.	Address.	Character of Ore.
Copper Mountain	Princeton	Canada Copper Corporation, Ltd.	Greenwood	Gold, silver, copper.
Aberdeen	Nicola	T. J. Corwin	Merritt	" "
Joshua	"	Donohoe Mines Corporation	Quilchena	Gold, silver, lead, copper.
Lucky Mike	"	O. A. Schmidt	Nicola	Silver, copper.

YALE, ASHCROFT, AND KAMLOOPS MINING DIVISIONS.

Emancipation	Yale	M. Merrick	Hope	Gold, silver.
Highland Valley	Ashcroft	F. Keffer	Spokane	Silver, copper.
Evening Star	Kamloops	A. S. McArthur	Kamloops	Copper.
Fog Horn	Thompson river	Axel Chindgren	Chu Chua	Silver, lead.
Iron Mask	Kamloops	Kamloops Copper Co., Ltd.	Kamloops	Gold, silver, copper.
Margaret	Thompson river	A. B. Hogg	"	Silver.
Maxine No. 2	Kamloops	C. B. Frederick	Tranquille	Gold, silver, copper.
Queen Bess	"	B. T. Foote	Blackpool	Silver, lead, zinc.
Tenderfoot	Savona	R. W. Gibbs	Savona	Siver copper.
Wind Pass	Chu Chua	T. Campbell	Chu Chua	Gold, silver, copper.

LILLOOET MINING DIVISION.

Lorne	Cadwallader creek	A. F. Noel	Lorne Mine	Gold, silver.
Pioneer	"	Andrew Ferguson	Vancouver	"

SOUTH COAST.

VANCOUVER MINING DIVISION.

Bowena	Bowen island	C. M. Oliver	Vancouver	Gold, silver, copper.
Britannia	Britannia beach	Britannia Mining & Smelting Co.	Britannia Beach	" "

NEW WESTMINSTER MINING DIVISION.

Empress	Agassiz	Barclay Bonthrone	Vancouver	Copper.

NANAIMO MINING DIVISION.

Alaska	Campbell river	J. B. Woodworth	Langara	Gold, silver, copper.
Copper Queen	Vananda	George Brister	Vananda	" "
Crayeroft	Crayeroft island	Crayeroft Copper Mines	Cracroft Island	Silver, copper.
Ingersoll	Quadra island	F. H. Rosher	Victoria	"
Loyal	Vananda	E. W. Watson	Vananda	Gold, silver, copper.
Marble Bay	Texada island	A. F. Eastman	Tacoma	" "
Planta	"	W. L. Planta	Nanaimo	" "
Puget Sound Iron Co.	Vananda	W. H. Lee	Vananda	Silver, copper.
Santa Anna	Valdes island	J. McConville	Vancouver	Gold, silver, copper.
Watson E. W.	Powell river	E. W. Watson	Powell River	Silver, copper.

VICTORIA MINING DIVISION.

Blue Grouse	Cowichan lake	H. Ketchen	Victoria	Silver, copper.
Margaret	Sooke	G. Fraser	"	"
Sunnyside	Cowichan lake	J. D. Grayson	"	"

CLAYOQUOT AND QUATSINO MINING DIVISIONS.

Cape Comerell	Shusharti	J. J. Skinner	Shusharti	Gold.
Indian Chief	Sidney inlet	S. Silverman	Seattle	Gold, silver, copper.
Yreka	Quatsino sound	N. S. Clark	Vancouver	Copper.

ALBERNI MINING DIVISION.

Lewis, J. C.	Alberni	J. C. Lewis	Alberni	Silver, copper.
Monitor	Alberni canal	J. B. Skene	Port Alberni	Copper.
Torse	Alberni	Anthony Watson	Alberni	Silver, copper.
Wolverton	"			"

LIST OF CROWN-GRANTED MINERAL CLAIMS.

CROWN GRANTS ISSUED IN 1917.

CASSIAR.

Claim.	Division.	Grantee.	Lot.	Acres.	Date.
Ajax	Omineca	Charles F. Booth, James E. Dean	535	27.66	April 2
Beach	Skeena	Dolly Varden Mines Company	3799	51.65	Dec. 27
Begonia Fraction	Queen Charlotte	Ikeda Mines, Ltd.	1878	51.54	Jan. 31
Belle	Omineca	Donald McLeod	3304	38.84	April 17
Belle Fractional	"	New Hazelton Gold-Cobalt Mines, Ltd.	3306	22.90	Feb. 19
Bellis Fraction	Queen Charlotte	Ikeda Mines, Ltd.	99	29.37	Jan. 31
Big Hill	Atlin	Christopher William Andrew Neville	228	25.55	Aug. 29
Blue Bell Fraction	Queen Charlotte	Ikeda Mines, Ltd.	1963	3.73	Jan. 31
Blue Jay	Portland Canal	William Henry Cooper and Helen Flewin	3225	47.60	Mar. 24
Brian Boru No. 1	Omineca	John Creagh	607	51.65	June 13
Brian Boru No. 2	"	John Creagh	608	50.22	June 13
Brookland	Portland Canal	Charles Edward Ingersoll	511	50.11	Oct. 30
Caribou	Skeena	Wakeley Aylesworth Williams	3510	43.00	Oct. 10
Cascade Falls No. 5	Portland Canal	Thomas Roberts	272	40.26	June 28
Cockscomb	Queen Charlotte	Ikeda Mines, Ltd.	1875	37.40	Jan. 31
Cosmos Fraction	"	Ikeda Mines, Ltd.	1870	29.49	Jan. 31
Daly	Portland Canal	James McDonald and Frederick Charles Winkler	3685	51.65	Sept. 22
Dougal	Skeena	Dolly Varden Mines Company	3638	47.52	Sept. 10
Dougal Fraction	"	Dolly Varden Mines Company	3642	1.22	Sept. 10
Eagle	Atlin	Hugh McDonald	384	30.23	Feb. 19
Eagle Bird	"	John Batistos Fenk	227	41.38	Dec. 20
Edith	Portland Canal	James McDonald and Frederick Chas. Winkler	3686	51.65	Sept. 22
Elk	Omineca	New Hazelton Gold-Cobalt Mines, Ltd.	3302	31.76	May 1
Even Star	Atlin	John Hartman Senn	224	43.61	Dec. 13
Ferns Fraction	Queen Charlotte	Ikeda Mines, Ltd.	1884	0.44	Jan. 31
Forty-five	Portland Canal	Charles Edward Ingersoll	512	45.80	Oct. 30
Gentian	Queen Charlotte	Ikeda Mines, Ltd.	1879	38.42	Jan. 31
Gopher	Atlin	Augusta Minnie Fenn	229	40.77	Dec. 13
Hazelton	Omineca	John C. K. Sealy and George Railson	3469	41.38	Oct. 30
Hazelton View	"	New Hazelton Gold-Cobalt Mines, Ltd.	3299	38.00	May 1
Hock	Atlin	Augusta Minnie Fenn	225	41.56	Dec. 13
Iris Fraction	Queen Charlotte	Ikeda Mines, Ltd.	1858	28.45	Jan. 31
Lady Isaac Fraction	Skeena	Granby M. S. and Power Company	1533	15.74	April 2
Lead Pick	Omineca	New Hazelton Gold-Cobalt Mines, Ltd.	3300	30.56	May 1
Lecroy	"	Guy Farrow	4098 R. 5	47.58	June 28
Lilac Fraction	Queen Charlotte	Ikeda Mines, Ltd.	1886	1.29	Jan. 31
Lois	Portland Canal	James McDonald and Frederick Chas. Winkler	3687	51.65	Sept. 22
Lucy	Atlin	Albert Creelman Smith	961	38.60	Feb. 19
Marigold Fraction	Queen Charlotte	Ikeda Mines, Ltd.	1882	1.40	Jan. 31
Moly One Fraction	Skeena	Molybdenum Mining and Reduction Co., Ltd.	3649	3.73	Sept. 19
Moose	Omineca	New Hazelton Gold-Cobalt Mines, Ltd.	3301	36.84	May 1
Nasturtium	Queen Charlotte	Ikeda Mines, Ltd.	1863	6.12	Jan. 31
Pine Apple Fraction	"	Ikeda Mines, Ltd.	1866	17.80	Jan. 31
Rose	Atlin	Arthur Jennings	385	36.90	Feb. 19
Silver Bell	Skeena	Miles Percy Donald and John Maddever Morrison	3644	41.94	Dec. 13
Simcoe	Atlin	Joseph Herman Chisel and James Irvine	382	45.12	Mar. 15
Sullivan	Portland Canal	James McDonald and Frederick Chas. Winkler	3684	51.65	Sept. 22
Thistle Fraction	Queen Charlotte	Ikeda Mines, Ltd.	1896	9.63	Jan. 31
Tiger	Skeena	The Granby M. S. and Power Company	6732	44.16	April 2
Victoria	Omineca	Donald McLeod	6737	43.95	April 17
View Fraction	"	New Hazelton Gold-Cobalt Mines, Ltd.	3305	21.38	Feb. 19
Waterfront	Skeena	Dolly Varden Mines Company	3639	51.04	Sept. 10
Waterfront Fraction	"	Dolly Varden Mines Company	3800	4.57	Dec. 27
Wolf	"	David W. Cameron	3795	49.87	Dec. 13
Wolf No. 2	"	David W. Cameron	3794	46.98	Dec. 13
Wolf No. 3	"	David W. Cameron	3796	44.48	Dec. 13
Wolverine	"	David W. Cameron	3797	36.69	Dec. 13

EAST KOOTENAY.

Alice	Fort Steele	Consolidated M. and S. Co.	12015 G. 1	45.02	Nov. 19
Bakke Fractional	"	Consolidated M. and S. Co.	12017 G. 1	42.58	Nov. 19
Cannon	"	Consolidated M. and S. Co.	12012 G. 1	50.00	Nov. 19
Clara	Windermere	Leonard Rees and John Hurst	12502 G. 1	51.65	May 5
Cruikshank	Fort Steele	Consolidated M. and S. Co.	3703 G. 1	51.50	Nov. 19
Edith	"	Consolidated M. and S. Co.	12016 G. 1	42.82	Nov. 19
Emma Fraction	"	William J. Langley, Charles C. Farrell, Walter C. Burchette, Edwin C. Smith, Robert L. T. Galbraith, Judson B. Langley, Andrew J. Devlin	6568 G. 1	7.40	Oct. 10
Gamble	"	Consolidated M. and S. Co.	12013 G. 1	51.33	Nov. 19

EAST KOOTENAY.—*Concluded.*

Claim.	Division.	Grantee.	Lot.	Acres.	Date.
Grey Eagle	Fort Steele	John Wright	8915 G. 1	41.08	April 3
Ida	Windermere	Leonard Rees and John Hurst	12501 G. 1	50.96	May 5
Iron Cap	"	Sarah James Farnham	5347 G. 1	51.65	June 11
Iron Crown Fraction	"	Ada Florence Scovil	5349 G. 1	14.54	June 11
July	Fort Steele	Consolidated M. and S. Co.	3700 G. 1	51.33	Nov. 19
Kitto Fraction	"	Consolidated M. and S. Co.	3702 G. 1	48.55	Nov. 19
Lois Fraction	"	Consolidated M. and S. Co.	6834 G. 1	51.18	Nov. 19
March	"	Consolidated M. and S. Co.	3699 G. 1	51.23	Nov. 19
Mispah	"	Elgin Earl Jones	12434 G. 1	32.18	April 2
Nellie Fraction	"	Consolidated M. and S. Co.	12010 G. 1	26.52	Nov. 19
Red Line No. 1	Windermere	Sarah James Farnham	5345 G. 1	51.65	June 11
Red Line No. 2	"	Ada Florence Scovil	5346 G. 1	47.62	June 11
Steele	"	John Williamson, Samuel Cobb, Frank L. Cottle, George H. Scott	12499 G. 1	47.05	Dec. 13
Steele No. 2	"	John Williamson, Samuel Cobb, Frank L. Cottle, George H. Scott	12500 G. 1	45.18	Dec. 13
Walde	Fort Steele	Consolidated M. and S. Co.	3701 G. 1	50.84	Nov. 19

WEST KOOTENAY.

Alice S.	Slocan City	Chester Westervelt Harper	12068 G. 1	51.65	Jan. 22
Anaconda	Trail Creek	James N. Cran	934 G. 1	8.79	May 28
Aspen	Nelson	Agnes Billings	12471 G. 1	35.25	June 11
Badger	Trail Creek	James Matthew Jordan	1227 G. 1	32.76	May 7
Batt Fraction	Nelson	Jonathan Rogers	9187 G. 1	1.68	July 19
Big Trout	Trail Creek	James Matthew Jordan	1276 G. 1	42.95	May 7
Black Rock	"	John D. McDonald	1821 G. 1	23.74	April 27
Blue Elephant	"	George W. Urquhart	1280 G. 1	51.47	April 27
Bonanza No. 2	"	Joe Cloman	5718 G. 1	49.00	April 30
Bondholder	Slocan	Roy F. Ainslie, George W. Bartlett	1257 G. 1	46.87	Dec. 13
Boston	Ainsworth	Patrick James Keogan	4913 G. 1	41.20	July 18
Camp Bird	Trail Creek	H. C. Athelstan Cornish	1283 G. 1	13.60	April 27
Carbonet No. 2	Slocan	Margaret Garland	6811 G. 1	51.65	Sept. 18
Cariboo	Ainsworth	Alex. Thomas Garland	631 G. 1	23.85	Mar. 14
Caroline	Nelson	Agnes Billings	12468 G. 1	14.84	June 11
Chetopha	Slocan	Thomas Jones Lloyd	3534 G. 1	45.56	June 12
Condor	"	Henry Homer Falding	3518 G. 1	40.51	June 12
Consolation	Trail Creek	Richard Roberts	1282 G. 1	41.16	Sept. 20
Crown	Arrow Lake	David Nevins, and Harry C. Randall	12460 G. 1	21.97	May 15
Cuba No. 2	Ainsworth	Patrick James Keogan	4914 G. 1	49.88	July 18
Daniel	Slocan	George T. Gormley	5193 G. 1	44.54	Jan. 30
Doherty	Ainsworth	Alex. T. Garland and George Eton McCready	12402 G. 1	43.47	Mar. 15
Eden	Trail Creek	John Joseph Mulligan, Thos. Patrick Mulligan, and James Weir	1127 G. 1	30.90	Sept. 20
Ego	"	Walter Cook	1823 G. 1	39.02	May 4
Emma	Nelson	Agnes Billings	12470 G. 1	31.13	June 11
Fairview	Trail Creek	Frank H. Watson	1058 G. 1	37.63	Sept. 4
Fairy	Slocan	Henry Homer Falding	4508 G. 1	30.77	June 12
Florence Silver Fraction	Ainsworth	Ferdinand Ralph Wolfle	9665 G. 1	35.40	Oct. 10
Good Hope	Nelson	Agnes Billings	9053 G. 1	38.29	July 6
Green Crown	Trall Creek	H. C. Athelstan Cornish	1232 G. 1	13.79	April 27
Green Mountain	"	Hubert Galt Oliver	638 G. 1	42.00	May 4
Harrisburg	"	Walter Cook	1449 G. 1	31.00	April 27
International	Nelson	Agnes Billings	12473 G. 1	36.46	June 11
Iron Mask	Trail Creek	Murdoch McLean	3520 G. 1	51.65	June 11
Jersey	"	Hubert Galt Oliver	646 G. 1	42.22	April 30
Keystone Fraction	Ainsworth	D. F. Strobeck	9670 G. 1	29.40	May 29
Kitchener	Slocan	Howard Cameron	4487 G. 1	45.88	Jan. 20
Louise	Nelson	George H. Green	12187 G. 1	24.61	Dec. 18
Lucky Girl	"	John William Crowthers	9190 G. 1	51.08	Oct. 2
Maggie Aikins	"	Frank Aikins and Philip Casey	10776 G. 1	51.65	Sept. 18
Marie	"	Agnes Billings	10371 G. 1	21.22	July 7
Michigan	"	Frank Aikins and Philip Casey	10775 G. 1	45.88	Sept. 18
Mohawk	"	Agnes Billings	12472 G. 1	39.32	June 11
Montana	"	Frank Aikins and Philip Casey	10778 G. 1	49.62	Sept. 18
Mountain Bell	"	Charles Augustus Coffin	4023 G. 1	51.65	July 12
Mountain Cougar Fract.	Ainsworth	Ferdinand Ralph Wolfle	9664 G. 1	40.14	Oct. 10
Monte Carlo	"	Alex. Thomas Garland	635 G. 1	15.25	Mar. 14
New Bonanza	Trail Creek	Chas. Augustus Coffin	5717 G. 1	31.90	June 19
Ontario	"	Ben F. Jordan	1057 G. 1	49.27	April 30
Opatunka	Slocan	Thomas Jones Lloyd	3523 G. 1	45.56	June 12
Paterson	Slocan City	Chester Westervelt Harper	12069 G. 1	43.54	Jan. 22
Pine Log	Slocan	Roy F. Ainslie and George W. Bartlett	1258 G. 1	51.65	Dec. 13
Road View	Trail Creek	Willard Graham	3783 G. 1	51.12	April 27
Silverton Fraction	Nelson	Percy Ferdinand Horton	12469 G. 1	6.74	June 9
St. Louis	Trail Creek	James N. Cran	935 G. 1	51.65	May 28
Summit Bell	Nelson	Frank Aikins and Philip Casey	10777 G. 1	51.65	Sept. 18
Sunday Sun No. 2	Trail Creek	Percy W. Racey	1161 G. 1	15.18	June 12
Tourmaline	"	James Matthew Jordan	457	10.55	Sept. 25
Utah	Nelson	Agnes Billings	9335	46.62	July 7
Van-Roi Fraction	Slocan	Van-Roi Mining Co., Ltd.	10594 G. 1	43.21	April 3
Victoria No. 6	"	Roderick Dewar and John Worgan	3154 G. 1	35.16	April 3
Wallace	Ainsworth	James Melley	12453 G. 1	48.70	Sept. 4
Wide West	Trail Creek	George Talbot	1287 G. 1	18.80	June 11
Yosemite Fraction	Nelson	Jonathan Rogers	10254 G. 1	3.24	July 29
Young America	Trail Creek	John D. McDonald	1233 G. 1	34.69	April 30

BOUNDARY.

Claim.	Division.	Grantee.	Lot.	Acre.	Date.
Copper Mine Fraction	Greenwood	William Edward McArthur	3600	0.85	Sept. 25
Gem Fraction	"	Isaac Hoyt Hallett	2347 G. 1	6.00	July 9
Great Western Fraction	Similkameen	Frederick A. Howse	322 S.	37.83	Sept. 19
Independence	"	Peter Hoogenhorzem	2017 S.	49.70	Aug. 29
Keystone Fraction	Greenwood	Isaac Hoyt Hallett	2296	42.10	July 18
Little Dalles	"	Robert Forshaw	2628	46.71	April 3
Oronoco	Similkameen	John A. Johnson	2158 S.	32.60	April 13
Reco	"	Albert T. Bryant, Guy A. Lafferty, Charles W. Staples, Will J. Lawrence	1509 S.	46.15	June 19
Silver Dollar	"	Albert T. Bryant, Firman R. Whitwell, George W. Aldous, James Gellatly	66 S.	39.92	Aug. 29
Tripod Fraction	Grand Forks	B.C. Copper Co.	1463 S.	50.13	May 9
Union Fraction	"	Louis Johnson, Patrick Maginnis	1678 S.	1.55	Feb. 12

VANCOUVER ISLAND AND COAST.

Albany	Victoria	San Jaun M. and M. Co.	772	47.27	May 4
Alberta	"	San Jaun M. and M. Co.	773	45.37	April 30
Alexander	Quatsino	Teta River Mining Co.	679	51.53	Mar. 16
Alfrida	Victoria	San Jaun M. and M. Co.	777	49.42	May 15
Alpha Fraction	Vancouver	Britannia Mining and Smelting Co.	3702 G. 1	9.61	Jan. 3
American Flag	Victoria	San Jaun M. and M. Co.	151	20.43	May 14
Argus	Vancouver	Britannia Mining and Smelting Co.	4154 G. 1	51.62	April 20
Bass	"	Britannia Mining and Smelting Co.	4371 G. 1	49.46	Dec. 21
Bessie	Alberni	Big Interior G. M. Co.	592	51.65	July 30
Blue Jay	"	John C. Eden	527	23.40	Nov. 26
Canary	Vancouver	Britannia Mining and Smelting Co.	4382 G. 1	51.65	Dec. 27
Ceti Fraction	"	Britannia Mining and Smelting Co.	4157 G. 1	48.80	Dec. 6
Corvi	"	Britannia Mining and Smelting Co.	4156 G. 1	51.65	Jan. 6
Crane	"	Britannia Mining and Smelting Co.	4397 G. 1	50.79	April 20
Della	Alberni	Big Interior G. M. Co.	591	51.65	July 30
Della Fraction	"	Big Interior G. M. Co.	601	14.04	July 30
Dove	Vancouver	Britannia Mining and Smelting Co.	4387 G. 1	51.24	Dec. 27
Drake Fractional	"	Britannia Mining and Smelting Co.	4399 G. 1	42.23	April 20
Duck Fraction	"	Britannia Mining and Smelting Co.	4389 G. 1	48.46	April 20
Eagle No. 7	Alberni	James A. Moore	297	30.30	Nov. 13
Eagle No. 8	"	James A. Moore	298	29.08	Nov. 13
Empress	Nanaimo	Alexander James Leitch	279 R.	44.90	Feb. 19
Engvick	Alberni	Big Interior G. M. Co.	604	45.97	July 30
Eros	Quatsino	Teta River Mining Co.	676 A.	0.63	Mar. 16
Flurry Fraction	Vancouver	Britannia Mining and Smelting Co.	4374 G. 1	50.20	Dec. 26
Gander	"	Britannia Mining and Smelting Co.	4400 G. 1	51.23	April 20
Golden Gate	Clayoquot	Elizabeth Ann Chesterman	1302	44.63	Mar. 1
Grouse Fraction	Vancouver	Britannia Mining and Smelting Co.	4392 G. 1	50.62	April 20
Hazel	Victoria	San Jaun M. and M. Co.	778	50.54	May 15
Holly	"	San Jaun M. and M. Co.	779	48.55	May 15
Ina	Vancouver	Britannia Mining and Smelting Co.	4221 G. 1	50.53	April 20
Jack of Clubs	Clayoquot	Elizabeth Ann Chesterman	1301	43.40	Mar. 1
June	Vancouver	Britannia Mining and Smelting Co.	4408 G. 1	51.06	Mar. 5
Jupiter	"	Britannia Mining and Smelting Co.	4146 G. 1	51.12	Dec. 6
Kalappa	Clayoquot	Elizabeth Ann Chesterman	1299	51.65	Mar. 1
Kate	Alberni	Big Interior G. M., Ltd.	593	45.46	July 30
Kendrick	"	Big Interior G. M., Ltd.	603	51.65	July 30
King George	Victoria	Frank Caffery	159	36.03	May 1
Lanz	Vancouver	Britannia Mining and Smelting Co.	4648 G. 1	51.65	Dec. 27
Linnet	"	Britannia Mining and Smelting Co.	4379 G. 1	51.28	Dec. 26
Lupi	"	Britannia Mining and Smelting Co.	4152 G. 1	51.65	April 20
Mamie	Alberni	Big Interior G. M., Ltd.	594	51.65	July 30
Maple Leaf	Victoria	San Jaun M. and M. Co.	775	45.00	May 15
Marie	Alberni	Big Interior G. M., Ltd	595	49 65	July 30
Marmot Fraction	Vancouver	Britannia Mining and Smelting Co.	3574 G. 1	45.51	April 19
Marne Fraction	"	Britannia Mining and Smelting Co.	4575 G. 1	39.87	April 20
Mars Fraction	"	Britannia Mining and Smelting Co.	4147 G. 1	44.65	Dec. 6
Mercury	"	Britannia Mining and Smelting Co.	4150 G. 1	47.64	Jan. 3
Minnie	Alberni	Big Interior G. M. Co.	602	48.37	July 30
Moonlight	Victoria	San Juan M. and M. Co.	780	51.25	May 1
Mountain View	"	San Juan M. and M. Co.	781	51.54	May 1
Neptune	Vancouver	Britannia Mining and Smelting Co.	4148 G. 1	51.65	April 20
Nippon Fraction	"	" "	4574 G. 1	26.87	April 20
No. 66	"	" "	2931 G. 1	51.65	Jan. 2
No. 77	"	" "	2933 G. 1	51.61	Jan. 2
No. 79	"	" "	3939 G. 1	51.63	Jan. 2
No. 82	"	" "	3951 G. 1	51.61	Jan. 2
No. 83	"	" "	3952 G. 1	51.55	Jan. 2
No. 56	"	" "	4012 G. 1	51.65	Jan. 2
No. 76	"	" "	2932 G. 1	51.61	Jan. 5
No. 78	"	" "	2934 G. 1	51.65	Jan. 5
No. 55	"	" "	4011 G. 1	51.65	Jan. 5
No. 61	"	" "	3719 G. 1	46.87	April 19
No. 58	"	" "	4014 G. 1	51.23	April 19
No. 59 Fractional	"	" "	4005 G. 1	51.61	April 19
No. 62	"	" "	2927 G. 1	46.36	Dec. 4
No. 64	"	" "	2929 G. 1	51.65	Dec. 4
No. 48	"	" "	3717 G. 1	50.15	Dec. 4
No. 67 Fraction	"	" "	3943 G. 1	49.17	Dec. 5

VANCOUVER ISLAND AND COAST.—*Concluded.*

Claim.	Division.	Grantee.	Lot.	Acre.	Acres.
No. 68 Fraction	Vancouver	Britannia Mining and Smelting Co	3945 G. 1	46.06	Dec. 5
No. 85 Fraction	"	" "	3954 G. 1	51.19	Dec. 5
No. 86 Fraction	"	" "	3955 G. 1	48.91	Dec. 5
No. 57	"	" "	4013 G. 1	48.21	Dec. 5
No. 60 Fraction	"	" "	4021 G. 1	48.74	Dec. 5
No. 80	"	" "	4222 G. 1	51.00	Dec. 6
No. 81	"	" "	4223 G. 1	51.59	Dec. 6
No. 119 Fraction	"	" "	4260 G. 1	37.96	Dec. 20
No. 120 Fraction	"	" "	2899 G. 1	47.61	Dec. 20
No. 116	"	" "	2900 G. 1	51.31	Dec. 20
No. 29	"	" "	4373 G. 1	48.66	Dec. 22
Pachena	Victoria	San Juan M. and M. Co	152	12.74	May 14
Pachena Fraction	"	San Juan M. and M. Co	154	6.10	May 14
Pallas Fraction	Vancouver	Britannia Mining and Smelting Co	4160 G. 1	51.41	Jan. 8
Parrot	"	" "	4383 G. 1	51.65	Dec. 27
Pike	"	" "	4370 G. 1	51.65	Dec. 21
Pigeon	"	" "	4381 G. 1	51.61	Dec. 26
Puma	"	" "	4143 G. 1	51.65	Jan. 2
Quail	"	" "	4391 G. 1	51.14	April 20
Rabbit	"	" "	3506 G. 1	49.51	April 19
Raven	"	" "	4380 G. 1	51.28	Dec. 26
Robin	"	" "	4385 G. 1	51.54	Dec. 27
Rook Fraction	"	" "	4388 G. 1	47.12	Dec. 27
Seal	"	" "	4377 G. 1	47.81	Dec. 26
Sninnick	Clayoquot	Elizabeth Ann Chesterman	1300	9.44	Mar. 1
Squirrel	Vancouver	Britannia Mining and Smelting Co	3507 G. 1	34.30	Mar. 5
S. Y	"	Britannia Mining and Smelting Co	4224 G. 1	51.65	April 20
Tally One	Victoria	Charles A. Johnson	519	34.23	July 17
Tally Two	"	Goodwin G. Johnson	520	23.00	July 17
Tally Three	"	Michael J. Gaynor	521	44.20	July 17
Tauri	Vancouver	Britannia Mining and Smelting Co	4153 G. 1	51.65	Dec. 6
Three Jays	Alberni	William Garrett Tanner	524	35.16	Aug. 2
Three Jays No. 2	"	William Garrett Tanner	525	33.50	Aug. 2
Three Jays No. 3	"	John C. Eden	526	50.40	Nov. 13
Thrush Fraction	Vancouver	Britannia Mining and Smelting Co	4398 G. 1	51.09	Jan. 3
Tiger Fraction	"	" "	4144 G. 1	50.46	Jan. 3
Trout Fraction	"	" "	4372 G. 1	47.63	Dec. 22
Uranus Fraction	"	" "	4149 G. 1	48.25	Jan. 3
Ursa	"	" "	4155 G. 1	51.65	Jan. 6
Venus Fraction	"	" "	4158 G. 1	46.30	April 20
Victoria	Victoria	San Juan M. and M. Co	153	51.49	May 14
Whale Fraction	Vancouver	Britannia Mining and Smelting Co	4376 G. 1	50.79	Dec. 26
Zulu Fraction	"	Britannia Mining and Smelting Co	4375 G. 1	47.56	April 20

DEPARTMENT OF MINES.

VICTORIA, B.C.

HON. WM. SLOAN, *Minister of Mines.*

R. F. TOLMIE, *Deputy Minister.*

WM. FLEET ROBERTSON, *Provincial Mineralogist and Assayer.*

GEO. WILKINSON, *Chief Inspector of Mines.*

HENRY DEVLIN, *District Inspector*, Nanaimo.

JOHN NEWTON, *District Inspector*, Nanaimo.

ROBERT STRACHAN, *District Inspector*, Fernie.

WM. LANCASTER, *District Inspector*, Fernie.

JAMES MCGREGOR, *District Inspector*, Nelson.

J. H. MCMILLAN, *District Inspector*, Prince Rupert.

H. H. JOHNSTONE, *Temporary Inspector*, Nelson.

D. E. WHITTAKER, *Provincial Analyst and Assistant Assayer.*

J. D. GALLOWAY, *Resident Engineer*, Hazelton.

W. M. BREWER, *Resident Engineer*, Nanaimo.

GEO. A. CLOTHIER, *Resident Engineer*, Prince Rupert.

P. B. FREELAND, *Resident Engineer*, Grand Forks.

A. G. LANGLEY, *Resident Engineer*, Revelstoke.

R. W. THOMSON, *Resident Engineer*, Kamloops.

GOLD COMMISSIONERS AND MINING RECORDERS.

Mining Divisions.	Location of Office.	Gold Commissioner.	Mining Recorder.	Sub-Recorder.
Atlin Mining Division	Atlin	J. A. Fraser	W. G. Paxton	
Sub-office	Discovery			R. Webster.
"	Telegraph Creek			H. W. Dodd.
"	Haines (U.S.)		(Com. for taking Affidavits)	Risdon M. Odell.
Stikine Mining Division	Telegraph Creek	H. W. Dodd	H. W. Dodd	
Sub-office	Boundary	"	"	Louis Dixon.
Liard Mining Division	Telegraph Creek.	"	"	
Sub-office	Porter			Chas. H. Smith.
"	McDame Creek			Mike Larsen.
Skeena Mining Division	Prince Rupert	J. H. McMullin	J. H. McMullin	
Sub-office	Alice Arm			Telka Carney.
"	Kitimat			Geo. L. Anderson.
"	Port Simpson			J. R. C. Deane.
"	Copper City			P. R. Skinner.
"	Terrace			T. J. Kirkpatrick.
"	Stewart (Portland Canal)			P. S. Jack.
"	Anyox			E. H. T. Hyde.
Portland Canal M.D.	Stewart	J. H. McMullin (at Prince Rupert)	P. S. Jack	
Bella Coola Mining Div.	Prince Rupert	J. H. McMullin	J. H. McMullin	
Sub-office	Bella Coola			Brynild Brynildsen.
Queen Charlotte Min'g D.	Queen Charlotte	J. H. McMullin	John L. Barge.	
Sub-office	Jedway			Isaac Thompson.
"	Masset			C. Harrison.
"	Lockeport			William Morgan.
Omineca Mining Division	Hazelton	Stephen H. Hoskins	Jas. E. Kirby	
Sub-office	Fort Grahame			Wm. Fox.
"	Fort St. James			Alex. C. Murray.
"	Manson Creek			W. B. Steele.
"	Telkwa			T. J. Thorp.
"	Fort St. John			F. W. Beatton.
"	Copper City			P. R. Skinner.
"	Terrace			T. J. Kirkpatrick.
"	New Hazelton			L. B. Warner.

GOLD COMMISSIONERS AND MINING RECORDERS—*Continued.*

Mining Divisions.	Location of Office.	Gold Commissioner.	Mining Recorder.	Sub-Recorder.
Omineca M.D.—*Con.*				
Sub-office	Fort Fraser			J. S. Alexander.
"	Junction Finlay &	Parsnip rivers		Thos. A. Perry.
"	Pacific			T. H. McCubbin.
"	Smithers			Walter Noel.
"	Burns Lake			R. C. Macdonald.
"	Houston			Frank L. Mosher.
"	Usk			Jas. L. Bethurum.
Peace River Mining Div.	Fort St. John	S. H. Hoskins	F. W. Beatton	
Sub-office	Hudson's Hope	(at Hazelton)		John A. McDougall
"	Pouce Coupe			G. J. Duncan.
Cariboo Mining Division	Barkerville	C. W. Grain		
Sub-office	Quesnel			E. C. Lunn.
"	Fort George			T. W. Herne.
"	McBride			F. F. O'Halloran.
Quesnel Mining Division	150-Mile House	C. W. Grain	R. M. McCusty	
Sub-office	Quesnel	(at Barkerville)		E. C. Lunn.
"	Quesnel Forks			Grant Grinder.
"	Barkerville			C. W. Grain.
Clinton Mining Division	Clinton	Geo. Milburn		
Lillooet "	Lillooet	John Dunlop	John Dunlop	
Kamloops Mining Division	Kamloops	E. Fisher	L. S. Brown	
Sub-office	Chu Chua			George Fennell.
"	Vavenby			Hyde Finley.
"	Albas			C. O. Sjouquist.
Ashcroft Mining Division	Ashcroft	E. Fisher (at Kam.)	H. P. Christie	
Sub-office	Lytton			Thos. Somerville.
Nicola Mining Division	Nicola	E. Fisher (at Kam.)	J. A. Murchison	
Yale "	Yale	" "	L. A. Dodd	
Sub-office	Hope			George Blue.
Similkameen Mining Div	Princeton	Hugh Hunter	Hugh Hunter	
Sub-office	Hedley			F. M. Gillespie.
Vernon Mining Division	Vernon	L. Norris	H. F. Wilmot	
Greenwood Mining Div.	Greenwood	W. R. Dewdney	W. R. Dewdney	
Sub-office	Vernon			H. F. Wilmot.
"	Rock Creek			Jas. Kerr.
"	Beaverdell			E. F. Ketchum.
Grand Forks Min. Div	Grand Forks	S. R. Almond	S. R. Almond	
Osoyoos Mining Division	Fairview	J. R. Brown	R. D. Tweedie	
Sub-office	Olalla			R. W. Northey.
"	Hedley			F. M. Gillespie.
Golden Mining Division	Golden	John Bulman	G. E. Sanborn	
Windermere "	Wilmer	" (at Golden)	E. M. Sandilands	
Fort Steele Mining Div.	Cranbrook	N. S. A. Wallinger.	H. S. Clark	
Sub-office	Steele			Joseph Walsh.
"	Fernie			Ronald Hewat.
"	Moyie			W. H. Laird.
"				
Ainsworth Mining Div	Kaslo	R. J. Stenson	A. McQueen	Wm. J. Green.
Sub-office	Howser			W. Simpson.
"	Trout Lake			Oscar Jacobson.
"	Crawford Bay			Thos. W. Lytle.
"	Poplar			Arthur G. Johnston.

GOLD COMMISSIONERS AND MINING RECORDERS—*Concluded.*

Mining Division.	Location of Office.	Gold Commissioner.	Mining Recorder.	Sub-Recorder.
Slocan Mining Division	New Denver	R. J. Stenson	Angus McInnes	
Sub-office	Sandon	(at Kaslo)		W. J. Parham.
Slocan City Mining Div.	Slocan	R. J. Stenson	Thos. McNeish	
Trout Lake Mining Div.	Trout Lake	"	Oscar Jacobson	
Nelson Mining Division	Nelson	John Cartmel	S. S. Jarvis	
Sub-office	Creston			R. Lamont.
"	Ymir			Geo. Leece.
"	Sheep Creek			James Thompson.
"	Salmo			G. A. Kennington.
Arrow Lake Min. Division	Nakusp	John Cartmel	Walter Scott	
Sub-office	Vernon	(at Nelson)		H. F. Wilmot.
Revelstoke Mining Div.	Revelstoke	A. Johnson	J. Lee	Newton R. Brown.
Lardeau Mining Division	Beaton	" (at Revelstoke)	William A. Strutt	Mrs. A. H. Strutt.
Trail Creek Mining Div.	Rossland	H. R. Townsend	M. S. Morrell	
Nanaimo Mining Division	Nanaimo	S. McB. Smith	S. McB. Smith	
Sub-office	Ladysmith			John Stewart.
"	Alert Bay			Ernest H. Robinson
"	Vananda			Leonard Raper.
"	Quathiaski Cove			S. Marshall.
"	Granite Bay			Henry Twidle.
"	Campbell River			T. W. Hanson.
Alberni Mining Division	Alberni	J. E. Hooson	J. E. Hooson	
Clayoquot "	Clayoquot	" (at Alberni)	W. T. Dawley	
Quatsino "	Quatsino	" "	O. A. Sherberg	
Victoria Mining Division	Victoria	Herbert Stanton	Herbert Stanton	
New Westminster Min. D.	New Westminster	F. C. Campbell	I. Wintemute	
Sub-office	Harrison Lake			L. A. Agassiz.
"	Chilliwack			J. Pelly.
Vancouver Mining Div.	Vancouver	John Mahony	A. P. Grant	

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1918.

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British Columbia. *Bureau of Mines.*

Annual Report of the Minister of Mines for the year ending 31st December, 1917, being an account of mining operations for gold, coal, etc., in the Province. William Fleet Robertson, Provincial Mineralogist. 487 pp., plates, maps, 1917.
Victoria, Government Printing Office, 1918.

Author.

Robertson, William Fleet. *(Provincial Mineralogist.)*

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PROVINCE OF BRITISH COLUMBIA

SPECIAL REPORTS

ON

COAL-MINE EXPLOSIONS

APPENDIX

TO THE

REPORT OF MINISTER OF MINES

FOR THE YEAR 1918

PRINTED BY
AUTHORITY OF THE LEGISLATIVE ASSEMBLY.

VICTORIA, B.C.:
Printed by WILLIAM H. CULLIN, Printer to the King's Most Excellent Majesty.
1918.

Explosions at No. 3 Mine, Coal Creek

APRIL 5TH, 1917

SPECIAL REPORTS BY

GEORGE WILKINSON, - - - Chief Inspector of Mines
THOMAS GRAHAM, - - - late Chief Inspector of Mines
JAMES ASHWORTH, - - - - Consulting Engineer

NOTE.—Each of these three Reports was accompanied by blue-prints taken from tracings of the company's mine-plans, to which certain notes had been added. As these three sets of prints were practically similar, only one set has been reproduced, and this applies to all three Reports.

EXPLOSION AT No. 3 MINE, COAL CREEK COLLIERY.

REPORT BY GEORGE WILKINSON, CHIEF INSPECTOR OF MINES.

I have the honour to submit the following report on the explosion which occurred on April 5th, 1917, in the No. 3 mine of the Coal Creek Colliery, operated by the Crow's Nest Pass Coal Company:—

Upon instructions from the Honourable the Minister of Mines, I left Victoria for Fernie on April 7th, 1917; leaving Victoria by 2 p.m. boat for Vancouver, arriving at Vancouver 7 p.m.; left Vancouver by Great Northern Railway via Settle, Spokane, and Wrexford, arriving at Fernie 10 a.m. Monday, April 9th.

Upon arrival at Fernie I visited the offices of the Crow's Nest Pass Coal Company in company with James Ashworth, who was appointed by the Honourable the Minister of Mines to investigate and report upon the explosion. At the office we met W. R. Wilson, general manager of the Crow's Nest Pass Coal Company, who kindly showed us the progress that had been made up to date with the recovery-work, marking the same upon a blue-print.

After consulting with Mr. Wilson I proceeded to Coal Creek and visited the mines and further checked up the progress of the recovery-work. I then consulted with Thomas Graham and Inspectors Strachan, Williams, and O'Brien about the future plan of operations on the recovery-work.

HISTORY OF RECOVERY-WORK.

Over four days having elapsed since the explosion had occurred, the following description of the work which had been done during that time is taken from the evidence of the witnesses at the inquest, and especially that of the mine manager, Mr. Caufield: Having been notified about the explosion about 10.20 p.m. on April 5th, Mr. Caufield hastened to the mine entrance and inquired as to the condition of the fan, receiving the reply from the fan engineer that it seemed to be carrying a heavy load and the water-gauge had fallen; the natural conclusion was that some of the separation doors had been destroyed. Inspection showed that those between Nos. 2 and 3 mines were all right, two being shut and the third being open; closing this, the party returned to the outside, and after ordering material in the shape of boards, nails, etc., to be brought forward, the party proceeded down No. 3 slope, the main haulage and intake airway.

About 50 feet inside the mine entrance they found the body of the pumpman, H. Melarky; leaving instructions for the body to be taken out, the party proceeded farther and found the separation doors between No. 3 mine intake and return blown out. These were rebuilt tempo-

rarily, and 500 feet farther a small fire was encountered in a crosscut to the left of the slope. After extinguishing this with water, two more small fires were discovered and extinguished in the same manner.

About this time Inspector of Mines T. H. Williams and John Biggs, overman of the No. 3 mine, arrived from Fernie, and they headed another exploration party, which travelled the parallel slope or travelling-way. Farther down the slope the separation doors leading to the pipe-lines were found to be destroyed, and it was necessary to erect a temporary stopping at this point.

In the meantime the other party headed by Inspector Williams had reached the foot of the slope and found three men, F. Benezeth, P. Gormly, and J. Machin. Benezeth, who was a miner, was from No. 2 room off No. 6 incline; Gormly was employed as conductor on the trips on the Main level; and Machin's regular employment was as a driver, but he was acting as rope-rider on the Main slope to the surface that afternoon. Benezeth was alive when found and was hurried out to the surface for medical attention, but succumbed four hours later without having regained consciousness.

Leaving the slope and proceeding in the level, the party encountered another fire, which had gained considerable headway, but after considerable work they were able to extinguish it. They then proceeded farther in when they were notified that another fire had been discovered in the crosscut inside of that in which the previous fire had been extinguished; therefore the party retreated and after considerable trouble got two other fires extinguished. About 1,000 feet from the foot of the slope the first big cave of rock was encountered, and, as it was evident that it would take some time to get over this, it was decided to arrange shifts so that the work could be carried forward as fast as possible. Arrangements were made for thirty men to work on each shift; included in this number were five officials who were acquainted with the workings.

By Monday, April 9th, the work had proceeded as far as No. 4 incline; stoppings had been erected to direct the air up No. 4 incline. There were no workmen up No. 4 incline, but it was not deemed advisable to work the rescue parties along the Main level with this large body of gas in this district in such a position that it might be forced out on the men by caves.

Very little progress was being made, and to take advantage of the large barrier pillar between the Main level and No. 1 room off No. 4 incline, and save the erection of about sixteen stoppings between the Main and counter levels, another stopping was built at the foot of No. 4 incline, which practically turned all the air coming into the mine into the No. 4 incline district. When this was completed, as it would take some time to clear out the gas from this district, the workmen were called off the inside work and sent to improve the temporary stoppings and secure the roof along the level at points where it was caved and over which it was difficult to travel.

During the day the body of the locomotive-driver was found at a point a little inside of the inside charging-station. He had been on the way in with an empty trip of cars when the explosion caught him, and, besides having several burns on his face and head, he was caught beneath a cave of rock which covered the entire trip of eighteen cars and the locomotive.

Tuesday, April 10th. The writer visited the mine with the party and made a thorough examination of all the accessible parts. Personnel of party: James Ashworth; Thos. Graham; B. Caufield, manager of Coal Creek Colliery; Chas. Graham, manager of Michel Colliery; William Shaw, Inspector of Mines, Blairmore, Alberta; and Mine Inspectors Wilkinson, Williams, O'Brien, and Strachan, of the British Columbia staff, and Dudley Michel, Instructor in First-aid and Mine-rescue Work. The party were able to proceed to Nos. 3 and 4 inclines, but when at No. 2 stall off No. 4 incline were stopped by gas, the upper portion of these works being full. This proved that the air-current was not strong enough to overcome the resistance set up in the Nos. 4, 5, and 6 inclines, and it seemed impossible to move the gas in these places; and as this body of gas was going to be a standing menace to all operations being conducted inside, as the air was passing it before going inside, and any disturbance in the shape of a cave would force it out on the rescue party, it was the writer's opinion and the opinion of the party that the system of ventilation should be reversed, and this body of gas be put on the return side of the workmen instead of the intake; therefore it was decided after consultation to withdraw to the outside of the overcast on the level and make a break-through in it and reverse the air, so that the fresh air would travel along the counter-level inside of No. 4 incline and from there to No. 5 incline; both the Main and counter levels could be used for an intake, allowing the return air to go up No. 6 incline, down No. 5 incline, the crosscut to the rooms on No. 4 incline, and

after circulating around that district returning out the Main level and up Draper's slope and on to the fan.

This change requiring some time, on Wednesday, April 11th, the writer visited No. 1 East mine, where the "bumps" took place on November 7th and 8th, 1916; the personnel of the party being Thos. Graham; David Martin, overman of No. 1 East mine; and Inspectors Wilkinson, Williams, and Strachan.

Thursday, April 12th. Again visited No. 3 mine. Personnel of party: Thos. Graham, B. Caufield, Chas. Graham, Wm. Shaw, Inspectors Wilkinson, Williams, O'Brien, and Strachan, and Dudley Michel. After the change made in the ventilation on Tuesday we were able to penetrate into No. 6 incline district, getting into Nos. 1, 2, 3, and 4 rooms; in No. 2 room we could not get to within several feet of the face owing to gas, but had no difficulty in getting to the face of the others. During the night the bodies of W. R. Puckey, fireboss; William Bird and H. Falip, miners from No. 6 incline; W. Silverwood and T. Checkley, miners in a crosscut being driven from the level to No. 1 room off No. 6 incline, were found on the siding at the foot of No. 5 incline; all of these men were severely burned and had received other injuries also. The men in No. 1 room off No. 6 incline were also recovered during the night—viz., B. Giocomazzi and J. Falip; one of the two men out of No. 2 room off No. 6 incline, as stated before, was found at the foot of the slope, and up to date the body of his partner has not been recovered.

In No. 3 room the bodies of F. and J. Smith, father and son, were found by the above-mentioned party when examining the face of this room; they were found at the face and had evidently been at work when the explosion occurred, as J. Smith, from injuries received on his forehead, seemed to have been dashed against the face of the room; F. Smith was lying near by under some loose timber.

Owing to gas being present the party was unable to inspect the faces of Nos. 5 and 6 inclines.

Friday, April 13th. Personnel of party: James Ashworth, Thomas Graham, Chas. Graham, B. Caufield, Inspectors Wilkinson, Williams, O'Brien, and Strachan, and Dudley Michel. The party penetrated No. 5 room off No. 6 incline, 20 feet towards the face of No. 5 incline, No. 6 incline, and down No. 5 incline to crosscut of No. 5 incline to No. 1 room off No. 4 incline. During the night the bodies of J. Atkinson and H. Haydock were recovered from No. 5 room; they were found close to the face, both covered with rock. The bodies of J. Bossette and W. G. Clarke were also recovered from No. 5 incline, both being found back from the face down towards the crosscut, where they seemed to have been changing a car; both of these bodies were badly burned and crushed. The bodies of Ed. Coates and J. Campbell were found in the crosscut off No. 6 incline, both of them being buried with rock; the crosscut was caved, said cave extending right across No. 6 incline.

Saturday, April 14th. All lamps brought out of the mine were examined in the presence of the following: James Ashworth, Thomas Graham, George Wilkinson, T. H. Williams, George O'Brien, Chas. Graham, Robert Strachan, Robert Johnstone, electrician Crow's Nest Pass Coal Company, and Albert Fawcett, lampman at Coal Creek Colliery. A list showing condition of lamps is appended.

Monday, April 16th. The party visited return airways and old workings at the head of Draper's slope. Personnel of party: James Ashworth, Inspectors Wilkinson and Williams, Firebosses Jas. Bushell and Frank Lauder. The purpose of this examination was to determine what evidence there was of the explosion in the old workings or to find out if it had originated there. The examination showed there was no evidence of force in the old workings; the party then proceeded to the fan-drift, measured the air-current, and followed down the pipe-line road paralleling the Main No. 3 slope. The evidence showed the stoppings were all blown in from the slope, and James Bushell, the fireboss, stated the separation doors at the foot of the slope were blown in and up the slope near by a pillar-length.

Tuesday, April 17th. The party visited No. 6 incline district and got in the face of No. 5 incline. The bodies of John Monks and J. Stelliga were found in No. 4 room off No. 6 incline, 30 feet back from the face under a heavy cave. This completed the list of men working in this district, except the miner from No. 2 room, whose partner was found alive at the foot of the slope.

All work was then concentrated on reaching the face of the Main and counter levels; with this object in view a stopping was erected outside of No. 5 incline to drive the air down into

the counter-level and along to the face of the Main level and back and up No. 6 incline, and from there through No. 5 incline to No. 4. There being a swamp on the counter-level, it became necessary to build a bridge to allow of travelling the counter.

The counter-level was not heavily caved at this point, except at the foot of the crosscuts, until we reached the crosscut opposite the room or crosscut being driven from the Main level to room No. 1 off 6 incline. At this point it seemed an impossibility to get any farther; however, desperate attempts were made in various ways to penetrate farther by trying to get over or under the cave, and by taking a small slice of coal off the rib alongside of the cave. After four days of futile work it was decided in the interests of safety to abandon the advance work.

With this end in view a consultation was called, and it was decided to form a party containing members of all parties concerned to thoroughly examine the area explored and decide on future action; therefore W. R. Wilson, general manager of the Crow's Nest Pass Coal Company, and Thomas France, secretary of the local Gladstone Union, and William Hunter, president of the local Gladstone Union, joined the party.

On April 18th this party entered the mine and made thorough examination, and returned to the mine office for consultation, with the result that the following was drafted out and signed by all parties concerned:—

"NOTICE.

"COAL CREEK, April 18th, 1917.

"After making an examination of all the existing conditions of the Main level and Main parallel level in No. 3 mine, between the foot of the slope parting and to heavy clod falls in both Main level and counter-level, which we found at points about 600 feet on the inside of No. 6 incline, we are of the opinion that the only safe and practical method of recovering the bodies yet entombed between No. 6 parting and the faces of the Main levels is to push the cleaning-up of main tunnels from the outer end, where the main haulage is available, concentrating all labour through this more safe method until the bodies are all recovered.

"(Signed.) GEORGE WILKINSON. WILLIAM HUNTER.
"THOS. GRAHAM. CHAS. GRAHAM.
"ROBERT STRACHAN. B. CAUFIELD.
"T. H. WILLIAMS. JAMES ASHWORTH.
"GEORGE O'BRIEN. W. R. WILSON."
"THOMAS FRANCE.

SHORT DESCRIPTION OF NO. 3 MINE.

No. 3 slopes are driven due east approximately 1,500 feet; at the foot of the slopes a pair of levels are driven on the strike of the seam for approximately 8,500 feet. Nos. 1, 2, 3, and 4 inclines are turned from these levels at a point 4,500 feet distant from the bottom of the slope. The inclines are driven on a bearing of S. 45° W. for a distance of approximately 2,000 feet. Off these inclines six rooms are driven, in sets of three, for approximately 1,000 feet. At a distance of approximately 5,700 feet from the bottom of the slope, Nos. 5 and 6 inclines are driven on a bearing of due west for a distance of 700 feet and rooms turned off in sets of three. The first three are in a distance of approximately 200 feet, and two of the second set are turned away and in about 50 feet. Inside of Nos. 5 and 6 inclines a distance of 500 feet two rooms are turned away from the level and are up about 75 feet. The faces of the levels are about 800 feet inside of these two rooms.

The levels are driven 10 feet wide, with 50 to 60 feet of pillars between. The rooms are driven 18 feet wide, with 60-foot centres, and a pillar of 150 feet is left between each set of rooms.

The seam averages about 5½ feet in thickness; brushing of about 4 feet is taken up to make height. There is a band of coal in the brushing which runs from nothing to 4 feet.

The ventilation of the mine is produced by a Wilson fan, size 8 x 16 feet, driven by rope-drive from a steam-engine 16 x 18 inches geared 5 to 8, running at a speed of approximately 35 revolutions a minute with a water-gauge of 3½ inches. A spare engine is kept ready for use.

THE APPARENT CONDITION OF THE MINE BEFORE THE EXPLOSION.

To give this, the following reports are appended:—

(*a.*) Firebosses' daily reports from March 1st, 1917, to date of explosion.

(*b.*) Overman's daily reports from March 1st, 1917, to date of explosion.

(*c.*) Gas Committee reports for January, February, and March, 1917.
(*d.*) Inspector of Mines' reports for Janauary, February, and March, 1917.
(*e.*) Samples of mine-air taken in No. 3 mine, Coal Creek.
(*f.*) Air-measurements taken by Inspectors of Mines.

Copy of Firebosses' Reports on No. 3 Mine, Coal Creek Colliery, from March 1st to April 5th, 1917.

Date: March 1st. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas; all places clear and in a safe condition.

W. R. Puckey; J. B.; J. McCourt.

Date: March 1st. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition.

J. Thompson; J. B.; W. R. Puckey.

Date: March 1st. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found same free from explosive gas and in a safe condition.

J. McCourt; J. B.; J. Thompson.

Date: March 2nd. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas; all places clear and in a safe condition.

W. R. Puckey; J. B.; J. McCourt.

Date: March 2nd. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from level round to counter-level.

J. Thompson; J. B.; W. R. Puckey.

Date: March 2nd. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found same free from explosive gas and in safe condition. A small cap of gas in return air from Main level round to counter-level.

J. McCourt; J. B.; J. Thompson.

Date: March 3rd. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas from Main level round to counter-level in return air.

W. R. Puckey; J. B.; J. McCourt.

Date: March 3rd. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to counter-level.

J. B.; W. R. Puckey.

Date: March 3rd. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: All persons being out of the mine and no shift coming on, I have securely fenced off entrances.

J. B.; W. R. Puckey.

Date: March 4th. Time: 8.15 p.m.
Barometer: 26 inches. Thermometer: 32° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have removed fences to examine main roads. Fan started 7 p.m.

J. B.; W. R. Puckey.

Date: March 4th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to counter-level.

J. McCourt; J. B.; W. R. Puckey.

Date: March 5th. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from Main level round to counter-level; all other places clear and in a safe condition.

J. Thompson; J. B.; J. McCourt.

Date: March 5th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Barometer: 25.9 inches. Thermometer: 42° Fahr.
Remarks: I have examined this mine and found a small cap of gas in return air from Main level to counter-level; all other places clear and in safe condition.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: March 5th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in air from Main level round to counter-level.

J. MCCOURT; J. B.; W. R. PUCKEY.

Date: March 6th. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from Main level to counter-level; all other places clear and in a safe condition.

J. B.; J. MCCOURT.

Date: March 6th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas. A small cap of gas in return air from Main level round to counter-level; all other places clear and in a safe condition.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: March 6th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in the return air from Main level round to counter-level.

J. MCCOURT; J. B.; W. R. PUCKEY.

Date: March 7th. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from Main level round to counter-level; all other places clear and in a safe condition.

J. THOMPSON; J. B.; J. MCCOURT.

Date: March 7th. Time: 3 p.m.
Barometer: 26.2 inches. Thermometer: 40° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level to counter-level; all other places clear and in a safe condition.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: March 7th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in air from Main level round to counter-level.

J. MCCOURT; J. B.; W. R. PUCKEY.

Date: March 8th. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in a safe condition.

J. THOMPSON; J. B.; J. MCCOURT.

Date: March 8th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level to counter-level; all other places clear and in safe condition.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: March 8th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to the counter-level.

J. MCCOURT; J. B.; W. R. PUCKEY.

Date: March 9th. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in a safe condition.

J. THOMPSON; J. B.; J. MCCOURT.

Date: March 9th. Time: 3 p.m.
Barometer: 26.1 inches. Thermometer: 30° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level to face of counter-level; all other places clear and in a safe condition.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: March 9th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to counter-level.

J. McCourt; J. B.; W. R. Puckey.

Date: March 10th. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in a safe condition.

J. Thompson; J. B.; J. McCourt.

Date: March 10th. Time: 2.30 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas from face of Main level to counter-level; all other places clear and in a safe condition.

W. R. Puckey; J. B.; J. Thompson.

Date: March 10th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from face of Main level round to counter-level.

J. B.; W. R. Puckey.

Date: March 10th. Time: 11 p.m.
Remarks: All persons being out of the mine, I have securely fenced off both entrances.

J. Thompson; J. B.; W. R. Puckey.

Date: March 11th. Time: 5.50 p.m.
Remarks: Removed fences to examine main roads to pumps and mine.

J. B.; J. Thompson.

Date: March 11th. Time: 10 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and main roads to pumps and found same free from explosive gas and in a safe condition.

J. McCourt; J. B.; J. Thompson.

Date: March 12th. Time: 7 a.m.
Barometer: 26.1 inches. Temperature: 22° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas; all places clear and in a safe condition.

W. R. Puckey; J. McCourt.

Date: March 12th. Time: 2.45 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to counter-level.

J. Thompson; J. B.; W. R. Puckey.

Date: March 12th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found same free from explosive gas and in a safe condition. A small cap of gas in return air from face of Main level round to counter-level.

J. McCourt; J. B.; J. Thompson.

Date: March 13th. Time: 7 a.m.
Barometer: 26.1 inches. Temperature: 22° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from Main level round to counter-level; all other places clear and in a safe condition.

W. R. Puckey; J. B.; J. McCourt.

Date: March 13th. Time: 2.45 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to counter-level.

J. Thompson; J. B.; W. R. Puckey.

Date: March 13th. Time: 10.15 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in safe condition.

J. McCourt; J. B.; J. Thompson.

Date: March 14th. Time: 7 a.m.
Barometer: 26.1 inches. Temperature: 18° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to counter-level.

W. R. PUCKEY; J. B.; J. MCCOURT.

Date: March 14th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to counter-level.

J. THOMPSON; J. B.; W. R. PUCKEY.

Date: March 14th. Time: 10.50 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level to counter-level; all other places clear and in safe condition.

J. MCCOURT; J. B.; J. THOMPSON.

Date: March 15th. Time: 7 a.m.
Barometer: 26.2 inches. Temperature: 12° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from Main level to counter-level; all other places clear and in a safe condition.

W. R. PUCKEY; J. B.; J. MCCOURT.

Date: March 15th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it clear from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to counter-level.

J. THOMPSON; J. B.; W. R. PUCKEY.

Date: March 15th. Time: 10.50 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level to counter-level; all other places clear and in safe condition.

J. MCCOURT; J. B.; J. THOMPSON.

Date: March 16th. Time: 7 a.m.
Barometer: 26.3 inches. Temperature: 12° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from Main level round to counter-level; all other places clear and in a safe condition.

W. R. PUCKEY; J. B.; J. MCCOURT.

Date: March 16th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from Main level round to counter-level; all other places clear and in a safe condition.

J. THOMPSON; J. B.; W. R. PUCKEY.

Date: March 16th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a cap of gas in return air from face of Main level to counter-level; all other places clear and in safe condition.

J. MCCOURT; J. B.; J. THOMPSON.

Date: March 17th. Time: 7 a.m.
Barometer: 26.4 inches. Temperature: 18° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in a safe condition.

W. R. PUCKEY; J. B.; J. MCCOURT.

Date: March 17th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a little gas in return air from Main level to counter-level; all other places clear and in a safe condition.

J. THOMPSON; J. B.; W. R. PUCKEY.

Date: March 17th. Time: 10.20 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a cap of gas in return air from Main level to counter-level; all other places clear and in safe condition.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: March 17th. Time: 10.20 p.m.
Remarks: All men being out of mine, I fenced off both entrances to same.

W. R. Puckey; J. B.; J. Thompson.

Date: March 18th. Time: 5.30 p.m.
Barometer: 26.1 inches. Thermometer: 34° Fahr.
Remarks: I have removed fences to examine main roads to pump.

J. B.; W. R. Puckey.

Date: March 18th. Time: 7.30 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined the main roads leading to the pumps and found them free from explosive gas and in a safe condition.

J. B.; W. R. Puckey.

Date: March 18th. Time: 10.30 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to counter-level.

J. McCourt; J. B.; W. R. Puckey.

Date: March 19th. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in face of Main level round to counter-level; all other places clear and in safe condition.

J. Thompson; J. B.; J. McCourt.

Date: March 19th. Time: 3 p.m.
Barometer: 26.1 inches. Temperature: 34° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas from face of Main level to counter-level; all other places clear and in safe condition.

W. R. Puckey; J. B.; J. Thompson.

Date: March 19th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level to counter-level.

J. McCourt; J. B.; W. R. Puckey.

Date: March 20th. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas from face of Main level round to counter-level; all other places clear and in a safe condition.

J. Thompson; J. B.; J. McCourt.

Date: March 20th. Time: 3 p.m.
Barometer: 26 inches. Thermometer: 36° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from Main level round to counter-level; all other places clear and in safe condition.

W. R. Puckey; J. B.; J. Thompson.

Date: March 20th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to counter-level.

J. McCourt; J. B.; W. R. Puckey.

Date: March 21st. Time: 7 a.m.
Barometer: 25.9 inches. Thermometer: 38° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in a safe condition.

J. Thompson; J. B.; J. McCourt.

Date: March 21st. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a cap of gas in face of Main level round to counter-level; all other places clear and in a safe condition.

W. R. Puckey; J. Thompson.

Date: March 21st. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in face of Main level round to counter-level; all other places clear and in a safe condition.

J. McCourt; J. B.; W. R. Puckey.

Date: March 22nd. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in safe condition.

J. THOMPSON; J. B.; J. MCCOURT.

Date: March 22nd. Time: 3 p.m.
Barometer: 25.9 inches. Temperature: 38° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a cap of gas from face of Main level round to counter-level; all other places clear and in safe condition.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: March 22nd. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from the face of Main level round to counter-level; all other places clear and in a safe condition.

J. MCCOURT; J. B.; W. R. PUCKEY.

Date: March 23rd. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in safe condition.

J. THOMPSON; J. B.; J. MCCOURT.

Date: March 23rd. Time: 3 p.m.
Barometer: 25.6 inches. Temperature: 34° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas from face of Main level round to counter-level; all other places clear and in safe condition.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: March 23rd. Time: 10.30 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from Main level round to counter-level; all other places clear and in a safe condition.

J. MCCOURT; J. B.; W. R. PUCKEY.

Date: March 24th. Time: 7 a.m.
Roof and sides: Safe, except a small cave on main road. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in a safe condition.

J. THOMPSON; J. B.; J. MCCOURT.

Date: March 24th. Time: 3 p.m.
Barometer: 25.8 inches. Temperature: 34° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a cap of gas from face of Main level round to counter-level; all other places clear and in safe condition.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: March 24th. Time: 10.30 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in air from Main level round to counter-level; all other places clear and in a safe condition.

J. THOMPSON; J. B.; W. R. PUCKEY.

Date: March 24th. Time: 11 p.m.
Remarks: All persons being out of the mine, I have securely fenced off both entrances.

J. THOMPSON; J. B.; W. R. PUCKEY.

Date: March 25th. Time: 6 p.m.
Remarks: Removed fences to examine mine and main roads to pumps.

J. B.; J. THOMPSON.

Date: March 25th. Time: 10 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found same free from explosive gas and in safe condition.

J. MCCOURT; J. B.; J. THOMPSON.

Date: March 26th. Time: 7 a.m.
Barometer: 26.3 inches. Thermometer: 10° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in a safe condition.

W. R. PUCKEY; J. B.; J. MCCOURT.

Date: March 26th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition. A small cap of gas in return air from Main level round to counter-level.

J. Thompson; J. B.; W. R. Puckey.

Date: March 26th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a cap of gas from face of Main level round to counter-level; all other places clear and in a safe condition.

J. McCourt; J. B.; J. Thompson.

Date: March 27th. Time: 7 a.m.
Barometer: 26.1 inches. Thermometer: 28° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in the return air from face of Main level round to counter-level; all other places clear and in a safe condition.

W. R. Puckey; J. B.; J. McCourt.

Date: March 27th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in a safe condition.

J. Thompson; J. B.; W. R. Puckey.

Date: March 27th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas from face of Main level round to counter-level; all other places clear and in safe condition.

J. McCourt; J. B.; J. Thompson.

Date: March 28th. Time: 7 a.m.
Barometer: 26.1 inches. Thermometer: 22° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in a safe condition.

W. R. Puckey; J. B.; J. McCourt.

Date: March 28th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in a safe condition.

J. Thompson; J. B.; W. R. Puckey.

Date: March 28th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a cap of gas in return air from face of Main level round to counter-level; all other places clear and in safe condition.

J. McCourt; J. B.; J. Thompson.

Date: March 29th. Time: 7 a.m.
Barometer: 25.9 inches. Temperature: 32° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas from face of Main level round to counter-level in return air; all other places clear and in a safe condition.

W. R. Puckey; J. B.; J. McCourt.

Date: March 29th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas from face of Main level round to counter-level in return air; all other places clear and in a safe condition.

J. Thompson; J. B.; W. R. Puckey.

Date: March 29th. Time: 10.30 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in safe condition.

J. McCourt; J. B.; J. Thompson.

Date: March 30th. Time: 7 a.m.
Barometer: 25.9 inches. Thermometer: 22° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in the return air from face of Main level round to counter-level; all other places clear and in a safe condition.

W. R. Puckey; J. B.; J. McCourt.

Date: March 30th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in the return air from face of Main level round to counter-level; all other places clear and in a safe condition.

J. THOMPSON; J. B.; W. R. PUCKEY.

Date: March 30th. Time: 10.30 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in a safe condition.

J. MCCOURT; J. B.; J. THOMPSON.

Date: March 31st. Time: 7 a.m.
Barometer: 26 inches. Temperature: 24° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in the return air from face of Main level round to counter-level; all other places clear and in a safe condition.

W. R. PUCKEY; J. B.; J. MCCOURT.

Date: March 31st. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in the return air from face of Main level round to counter-level; all other places clear and in a safe condition.

J. THOMPSON; J. B.; W. R. PUCKEY.

Date: March 31st. Time: 3.20 p.m.
Remarks: All men being out of the mine, I securely fenced off both entrances.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: April 1st. Time: 6 p.m.
Remarks: I have removed fences to examine main roads to pumps.

J. B.; W. R. PUCKEY.

Date: April 1st. Time: 7.30 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined main roads and found them free from explosive gas and in a safe condition.

J. B.; W. R. PUCKEY.

Date: April 1st. Time: 10 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition.

J. MCCOURT; J. B.; W. R. PUCKEY.

Date: April 2nd. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas; all places clear and in a safe condition.

J. THOMPSON; J. B.; J. MCCOURT.

Date: April 2nd. Time: 2.50 p.m.
Barometer: 26.1 inches. Thermometer: 42° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found same free from explosive gas and in a safe condition.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: April 2nd. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe working condition.

J. MCCOURT; J. B.; W. R. PUCKEY.

Date: April 3rd. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas; all places clear and in a safe condition.

J. THOMPSON; J. B.; J. MCCOURT.

Date: April 3rd. Time: 2.45 p.m.
Barometer: 26.3 inches. Thermometer: 42° Fahr.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free form explosive gas and in a safe condition.

W. R. PUCKEY; J. B.; J. THOMPSON.

Date: April 3rd. Time: 10.30 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition.

J. MCCOURT; J. B.; W. R. PUCKEY.

Date: April 4th. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition.

J. B.; J. McCourt.

Date: April 4th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in safe condition.

W. R. Puckey; J. B.; J. Thompson.

Date: April 4th. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a little gas in crosscut off counter-level; all other places clear and in a safe condition.

J. McCourt; J. B.; W. R. Puckey.

Date: April 5th. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a little gas in crosscut off counter-level; all other places clear and in a safe condition.

J. Thompson; J. B.; J. McCourt.

Date: April 5th. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of crosscut to face of counter-level; all other places clear and in safe condition.

W. R. Puckey; J. B.; J. Thompson.

Overman's Reports on No. 3 Mine, Coal Creek Colliery, from March 1st until April 5th, 1917.

March 1st, 1917. I have examined No. 3 mine and found same free from explosive gas and in a safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 53.

J. Biggs.

March 2nd, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 100.

J. Biggs.

March 3rd, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 103.

J. Biggs.

March 4th, 1917. Sunday, mine idle. The mine was fenced off from 3 p.m. on Saturday until 7 p.m. on Sunday. Afternoon-shift fireboss reports No. 3 mine free from explosive gas and in safe condition. Number of men in mine, 4.

J. Biggs.

March 5th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 62.

J. Biggs.

March 6th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. There is a small cap of gas in the return airway. Number of men in mine, 97.

J. Biggs.

March 7th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 97.

J. Biggs.

March 8th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. There is a small cap of gas in the air on the return airway. Firebosses report No. 3 mine as stated above. Number of men in mine, 97.

J. Biggs.

March 9th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. The Inspector made his usual examination and found the above-mentioned conditions. Firebosses report No. 3 mine as stated above. Number of men in mine, 100.

J. Biggs.

March 10th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 99.

J. Biggs.

March 11th, 1917. Sunday, mine idle. The mine was fenced off from 11 p.m. on Saturday until 5.50 p.m. on Sunday. Afternoon-shift fireboss reports No. 3 mine free from explosive gas and in safe condition. Number of men in mine, 4.

J. BIGGS.

March 12th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 95.

J. BIGGS.

March 13th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 101.

J. BIGGS.

March 14th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 29.

J. BIGGS.

March 15th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 100.

J. BIGGS.

March 16th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 100.

J. BIGGS.

March 17th, 1917. I have examined No. 3 mine and found a little gas in crosscut off counter-level; other places clear and in safe condition. Firebosses report No. 3 mine free from explosive gas and in safe condition. Number of men in mine, 98.

J. BIGGS.

March 18th, 1917. Sunday, mine idle. The mine was fenced off from 11 p.m. on Saturday until 5.30 p.m. on Sunday. Afternoon-shift fireboss reports No. 3 mine free from explosive gas and in safe condition. Number of men in mine, 8.

J. BIGGS.

March 19th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 58.

J. BIGGS.

March 20th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 95.

J. BIGGS.

March 21st, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 98.

J. BIGGS.

March 22nd, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. There is a small cap of gas in return airway. Firebosses report No. 3 mine as stated above. Number of men in mine, 96.

J. BIGGS.

March 23rd, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 99.

J. BIGGS.

March 24th, 1917. I have examined the main roads of No. 3 mine and found same in safe condition. Firebosses report No. 3 mine free from explosive gas and in safe condition. Number of men in mine, 97.

J. BIGGS.

March 25th, 1917. Sunday, mine idle. The mine was fenced off from 11 p.m. on Saturday until 5.30 p.m. on Sunday. Afternoon-shift fireboss reports No. 3 mine free from explosive gas and in safe condition. Number of men in mine, 4.

J. BIGGS.

March 26th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 64.

J. Biggs.

March 27th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 91.

J. Biggs.

March 28th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 91.

J. Biggs.

March 29th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 91.

J. Biggs.

March 30th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 51.

J. Biggs.

March 31st, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 92.

J. Biggs.

April 1st, 1917. Sunday, mine idle. The mine was fenced off from 3.30 p.m. on Saturday until 6 p.m. on Sunday. Afternoon-shift fireboss reports No. 3 mine free from explosive gas and in safe condition. Number of men in mine, 4.

J. Biggs.

April 2nd, 1917. I have examined the main roads and found same in safe condition. Firebosses report No. 3 mine free from explosive gas and in safe condition. Number of men in mine, 30.

J. Biggs.

April 3rd, 1917. I have examined No. 3 mine and found same free from explosive gas and in same condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 81.

J. Biggs.

April 4th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Number of men in mine, 90.

J. Biggs.

April 5th, 1917. I have examined No. 3 mine and found same free from explosive gas and in safe condition. The Inspector made his usual examination of the mine to-day and found the above-mentioned conditions. Afternoon- and night-shift firebosses report a little gas in crosscut off counter-level; day-shift fireboss reports all clear. Number of men in mine, 94.

J. Biggs.

Reports of Gas Committee of No. 3 Mine, Coal Creek Colliery, for the Months of January, February, and March, 1917.

January 6th, 1917.

We, the undersigned, have this day examined the whole of No. 3 mine and find gas in 5 incline. All other places clear of explosive gas. Timber, roof, and sides good.

(Signed.) Wm. Bird.
Jno. Charnock.

February 17th, 1917.

We, the undersigned, have this day examined the whole of No. 3 mine and find a small cap of gas in 3 room off 4 incline, also gas in crosscut off South slope, same fenced off. Timber, roof, and sides good.

(Signed.) Wm. Bird.
Jno. Charnock.

March 17th, 1917.

We, the undersigned, have this day examined the whole of No. 3 mine and find gas in crosscut off counter. All other places clear. Timber, roof, and sides good.

(Signed.) Wm. Bird.
Jno. Charnock.

INSPECTORS OF MINES' REPORTS FOR JANUARY, FEBRUARY, AND MARCH, 1917.

I hereby give notice that I have this day examined the underground workings of that part of the Crow's Nest Pass Coal Company's Colliery known as Coal Creek No 3 mine, and find the following conditions to prevail therein:—

Part of mine examined: Mine. Ventilation: Good.

Explosive gas: None. Small cap of gas in the last places on the air and in the return airway.

Roadways: Good. Timbering: Good.

Remarks: I measured 32,000 cubic feet of air a minute for the use of forty-four men and eight horses.

Dated at Coal Creek, B.C., this 9th day of January, 1917.

T. H. WILLIAMS,
Inspector of Mines.

I hereby give notice that I have this day examined the underground workings of that part of the Crow's Nest Pass Coal Company's Colliery known as Coal Creek No 3 mine, and find the following conditions to prevail therein:—

Part of mine examined: All the mine. Ventilation: Poor at the face of the South level, but generally good throughout the rest of the mine.

Explosive gas: Face of South level, crosscut off South level, and counter to South level. These three places were fenced off and the men withdrawn.

Roadways: Good, but the South level haulage-road is dusty in places. Timbering: Good.

Remarks: I measured 35,000 cubic feet of air a minute on the main intake for the use of forty-three men and eight horses. This quantity is divided into two shifts: South level split, 25,500 cubic feet a minute for forty men and eight horses; and for the Slope split I measured 6,000 cubic feet a minute for three men and one horse.

Dated at Coal Creek, B.C., this 8th day of February, 1917.

GEORGE O'BRIEN,
Inspector of Mines.

I hereby give notice that I have this day examined the underground workings of that part of the Crow's Nest Pass Coal Company's Colliery known as Coal Creek No 3 mine, and find the following conditions to prevail therein:—

Part of mine examined: Mine. Ventilation: Good.

Explosive gas: None.

Roadways: Good. Timbering: Good.

Remarks: I measured 35,000 cubic feet of air a minute for the use of forty-three men and seven horses. There is a small cap of gas in the Main level and counter.

Dated at Coal Creek, B.C., this 9th day of March, 1917.

T. H. WILLIAMS,
Inspector of Mines.

I hereby give notice that I have this day examined the underground workings of that part of the Crow's Nest Pass Coal Company's Colliery known as Coal Creek No 3 mine, and find the following conditions to prevail therein:—

Part of mine examined: Mine. Ventilation: Good.

Explosive gas: None. There was half-inch cap in the Main level, counter-level, and crosscut off it.

Roadways: Good. Timbering: Good.

Remarks: I measured 29,250 cubic feet of air a minute for the use of forty-three men and seven horses.

Dated at Coal Creek, B.C., this 5th day of April, 1917.

T. H. WILLIAMS,
Inspector of Mines.

MINE-AIR SAMPLES TAKEN IN NO. 3 MINE, COAL CREEK COLLIERY, MARCH 23RD, 1917.

Sample No. 90, taken by T. H. Williams on South level, 150 feet on the return side of the last working-place:—

Chemical Analysis.	Per Cent.	Technical Analysis.	Per Cent.
Carbon dioxide	0.38	Air	94.94
Oxygen	19.87	Fire-damp	3.43
Methane	3.43	Black-damp	1.63
Nitrogen	76.32		

Sample No. 91, taken by T. H. Williams on the Main return, 100 feet from the fan:—

Chemical Analysis.	Per Cent.	Technical Analysis.	Per Cent.
Carbon dioxide	0.34	Air	95.94
Oxygen	20.08	Fire-damp	1.28
Methane	1.28	Black-damp	2.78
Nitrogen	78.30		

Sample No. 92, taken by T. H. Williams on the Main level, about 500 feet from the face, but did not include the three last places on the air:—

Chemical Analysis.	Per Cent.	Technical Analysis.	Per Cent.
Carbon dioxide	0.23	Air	96.66
Oxygen	20.23	Fire-damp	1.99
Methane	1.99	Black-damp	1.35
Nitrogen	77.55		

Average of eight samples taken when mine was working:—

	Per Cent.		Per Cent.
CO_2	0.14	CH_4	1.77
O	20.44	N	77.69

Average of seven samples taken when mine was idle:—

	Per Cent.		Per Cent.
CO_2	0.11	CH_4	1.38
O	20.53	N	77.97

Condition of Mine after Explosion.

The mine was in a badly wrecked condition after reaching a point along the level 1,000 feet from the bottom of the slope; outside from this point the mine was not very much damaged. There are several long and extensive caves along the Main and counter levels, also up the inclines and in the places. It will take a long time to reopen the mine.

The following is from a detailed examination of the mine: Proceeding down the slope from the entrance very little damage is found; some of the stoppings were blown out and separation doors injured. Slight caves of rock had occurred here and there, but were of no consequence, until the first large cave was encountered 1,000 feet along the Main level. This cave extended for about 400 feet; proceeding about 300 feet farther, another cave is encountered which extends for about 700 feet. About 600 feet farther on, another cave is encountered which is practically continuous to the large cave on the level which stopped operations on the advance recovery-work; this is a distance of approximately 3,600 feet. All the inclines and working-places are caved more or less the whole distance.

A detailed examination of the working-places as far as examined showed the following conditions:—

Room No. 1 off No. 6 Incline.—Heavily caved to within a few feet of the face. Coal very soft at face; no signs of coking; large deposits of soot and dust. The men were not working in this place, but were driving a crosscut up to No. 2 room. Two crosscuts had been driven from this room to No. 2 room. Line of force in this room was in from incline and up inside crosscut into No. 2 room.

Crosscut off No. 1 Room.—Heavily caved to within a few feet of the face. Coal hard; no signs of coking deposits of soot and dust.

Room No. 2 off No. 6 Incline.—Heavily caved to within a few feet of the face. Rock nearly 70 feet long in one piece; could not quite reach the face of this room. No signs of coking as far as was reached. Line of force right up this crosscut and out of No. 3 room.

Room No. 3 off No. 6 Incline.—Timbers all blown out by force of explosion, but not much rock fallen. A little sign of coking in this place. The bodies of J. and F. Smith, father and son, were found in this place at the face. They had evidently been working when the explosion occurred. This room was about 15 feet past the last crosscut from No. 2 room and had not suffered much damage at the face from the force of the explosion. The force from the explosion had come up the crosscut from the room below and had gone outwards.

Room No. 4 off No. 6 Incline.—Very heavily caved to within a few feet of the face. Coal very soft at the face; small signs of coking. The bodies of J. Stelliga and J. Monks were found 30 feet back from the face under a cave. These men had apparently finished work for the shift and were in the act of putting their tools away. A tool-rack was found just at this point.

Room No. 5 off No. 6 Incline.—Very heavily caved to within a few feet of the face. Coal very soft; no coking; small deposits of soot. The bodies of H. Haydock and Jos. Atkinson were found right at the face—Atkinson on the right side of the room and Haydock on the left. Shovel found right at the face looks as if they had been caught while working at the face.

No. 6 Incline.—Coal hard at the face. Timbers knocked out, but place not caved. Not much signs of force, more compression; no coking; small deposits of soot. Incline face is 50 feet above crosscut in course of being driven to No. 5 incline. The men from this place, William Bird and H. Falip, were found at the foot of No. 5 incline and had evidently finished work and were on their way out.

Crosscut to Right off No. 6 Incline.—Heavily caved to within 5 feet of the face; no coking; small deposits of soot. The bodies of J. Campbell and Ed. Coates were found in this place. Campbell was found 10 feet from the face and 6 feet from the low rib, lying with his head pointing to the top rib. Coates was found leaning over a car at the face, with cave of rock on top of him, as if he had been in the act of loading a car. The crosscut is in 20 feet; coal 5½ feet high, with a brushing of 3 feet.

Last Break-through from No. 6 to No. 5 Incline.—Evidence of coking on timbers in this crosscut. Empty car found at corner of crosscut at point on No. 5 incline. This car had been broken by confliction of forces; one end had been driven upward to the face of the incline, and the other end outward and down the crosscut. The body of W. G. Clarke was found 10 feet from the car up the incline lying on his back, head pointing down. The body of J. Bossetti was found a little farther up, with his head pointing towards the face.

No. 5 Incline.—Face of this place was found in a normal condition, with the exception of timber knocked out by force of the explosion; no coking; deposits of soot. This was the only place in the mine where there was any conflicting lines of force of the explosion. This can be accounted for by the fact of the incline being driven ahead of the rooms forming a cul-de-sac. The force coming up the rooms and No. 6 incline had partly split, and part broke through the crosscuts into No. 5 incline and direct to No. 4 incline district. The other part reached the face and made a swirling movement and came back down No. 5 incline to the last break-through to No. 4 incline district. These working-places were all that were accessible; the places yet to be explored are the Main and counter levels and crosscut between them, and room No. 1 off the Main level. These places are inside of the heavy caves which stopped the exploration-work.

LINES OF FORCE FROM EXPLOSIVE BLAST.

All lines of force point from the level outwards, the blast coming out of the Main level, split at the foot of No. 6 incline, part going up No. 6 incline; the part split again at room No. 1 off No. 6 incline, part of which went up the incline and part into No. 1 room, up crosscut and into No. 2 room, up crosscut to No. 3 room, out of No. 3 room, and going again on No. 6 incline into Nos. 4 and 5 rooms and No. 6 incline; part of this force broke the stoppings between Nos. 5 and 6 inclines and passed direct through to No. 4 incline district; the other part that went into Nos. 5 and 6 inclines made conflicting lines of force, but eventually joined up with the forces going into No. 4 incline district. Nos. 5 and 6 inclines and rooms Nos. 4 and 5 being practically blind ends or cul-de-sac, conflicting lines of force could be expected at this point. The forces going through No. 4 incline district came back on the Main level and were outwards from that point. All lines of force on the counter-level were outward, going up crosscuts at some places on to the Main level.

DEDUCTIONS AS TO INITIAL POINT OF EXPLOSION.

The lines of force as found in the mine seem to indicate without any doubt that the point of origin was somewhere inside of No. 6 incline. Inside of this point there are yet four working-places to be explored and twelve bodies to be recovered. As to where inside of this point the explosion originated it is premature as yet to decide; but, personally, I am inclined to think there was a primary explosion of fire-damp within this area which was propagated through the mine by the agency of coal-dust.

A short review of the conditions existing inside of this point will also support this theory. From March 1st, 1917, to 3 p.m. April 5th, the day of the explosion, there were ninety-six fire-bosses' reports entered in the book, and on eighty of these gas was reported. This was reported mostly as a cap of gas in return air from face of level to face of counter-level. From evidence brought out by witnesses at the inquest it was proved this was from ½- to ¾-inch gas-cap. This practically means that there was almost continuous from March 1st to April 5th from 2 to 2½ per cent. of methane in the current of air passing through the Main and counter levels. This is also supported by the Gas Committee report of March 17th, 1917; they report finding gas in crosscut of counter-level.

Inspector Williams's report that morning states he found a ½-inch gas-cap in Main level, counter-level, and crosscut off it. Inspector Williams's report of March 9th also states he found a small cap of gas in the Main level and counter-level.

Inspector O'Brien's report on February 8th states the ventilation poor at the face of the South level, and he found explosive gas in the faces of South level crosscut off South level and counter South level; and again on January 9th Inspector Williams reports that small cap of gas in the last places on the return air and in the return air, which is the same level.

Taking the analysis of the air samples from this mine taken on March 23rd, 1917: Sample taken 150 feet on the return side of last working-place contained 3.43 per cent. of methane; quantity passing, 13,000 cubic feet a minute. Sample taken 500 feet from face of Main level contained 1.99 per cent. methane; quantity passing, 17,600 cubic feet a minute. Sample taken 100 feet from fan contained 1.28 per cent. of methane; quantity passing, 53,000 cubic feet a minute. An average of eight samples taken from this mine when working showed 1.77 per cent. of methane in the current passing, and the mine was giving off 3,669 cubic feet of methane to the ton of coal mined.

Again, an average of seven samples taken when the mine was idle showed 1.38 per cent. of methane in the current passing. From this it will be seen the mine was a gassy one, and the weakest place in the ventilation was the face of the Main and counter levels and crosscut of the same.

We have conditions under which explosive gas has been found at the face of the levels as given in Inspector O'Brien's report. Referring again to the samples of gas taken on March 23rd, the one taken 150 feet on the return side of the last working-place showed 3.43 per cent.; when we consider that methane becomes inflammable at 5.5 per cent., this is getting near the danger-line.

Mr. Williams stated in his evidence at the inquest that this sample was taken under abnormal conditions, as there had been a curtain broken down; but, apart from this, we have the current of 17,600, which is the intake to these levels, on the same date, containing 1.99 per cent. of methane. From the evidence taken at the inquest on the condition of the mine the shift preceding the explosion, witness No. 5, Joseph Lane, who worked in the Main level, swore that on the morning of April 5th, when he went into his place, there was a ½-inch gas-cap in it, and this gradually increased to ¾ inch at the end of the shift; he also stated that this was no unusual condition since the double shift was put on. (The double shift was put on to place the men thrown out of work by the "bump" in No. 1 East mine last November.) He also admitted that Inspector O'Brien had withdrawn him owing to there being a 1-inch cap of gas in the air. Lane, who is an old experienced miner, has worked for many years as fireboss, also holding a second-class certificate of competency, did not report this condition either to the fireboss or any of the officials, although he claimed the condition was worse when he left the place and after the fireboss had made his inspection.

R. Doodson, bratticeman, claimed he went into the Main level that morning and found a small cap of gas about ½ inch, and in an hour had reduced it below ½ inch by fixing the brattice.

J. McCourt, fireboss on the night shift, gave evidence that he found a small cap of gas in the crosscut off the counter-level, which he reported.

John Biggs, overman of No. 3 mine, testified he had held a second-class Certificate for eight years, had worked in No. 3 mine for seven years and ten months, and was overman for the past two years and five months. On the 5th instant he found the conditions very good; had found gas in one part of the mine varying to ½-inch cap. Did not consider it a dusty mine, and had never had occasion to withhold the men for dangerous conditions. His opinion was that something out of the ordinary happened, as there was only the usual quantity of dust and gas present on the 5th. They had only small "bumps" in this mine. Replying to Mr. Lane's statement about the gas-cap increasing from ½ to ¾ inches, he claimed that he visited that place on the afternoon and examined for gas and only found ½-inch gas-cap. He admitted he did not report caps of gas until it was suggested by Inspector Williams that he should do so.

Replying to Chief Inspector Wilkinson, he said a broken lamp had been found in the mine several weeks ago and miners had been found with matches in their possession.

Jos. Thompson, fireboss on day shift of No. 3 mine, was on duty on the morning of explosion; had nineteen years' experience as miner; held third-class certificate of competency for eight years; had been fireboss in No. 3 mine for past six months. He thought the general conditions

in the mine that day were fairly good. Was in Main level about 1.30 p.m. that day and did not consider conditions were any worse than they had been during the day; had found a small cap of explosive gas near the roof. He considered everything was in normal condition when he left the mine that day.

B. Caufield, manager, Coal Creek Colliery, had twenty-seven years' experience as a miner. Holds first-class certificate of competency for British Columbia for past seven years; has been three years manager at Coal Creek; testified that he generally found the conditions in No. 3 mine good, and had received no complaints as to conditions there. He considered it to be a fairly good mine; considered the mine dusty, not in what would be considered sufficiently to propagate an explosion-wave, and considered it would require a blown-out shot or a primary explosion of gas to cause flame to start a dust-explosion. There had been no blasting in this mine since December, 1914. His opinion was that a primary explosion of gas must have started the explosion.

The conditions had changed in the levels lately; more timber had to be put in, and afterwards renewed, showing the roof and sides to be more tender; some faults of a minor nature had also been encountered lately in the Main and counter levels.

Replying to Mr. Ashworth, he gave his opinion that an open light, either from a broken lamp or some other source, would be sufficient to cause an explosion; he also stated that gas is given off from the working-places very freely; also feeders from the floor.

After inspecting the mine and listening to the evidence at the inquest, and reviewing the facts obtainable, I am of the opinion that a primary explosion of gas inside of No. 6 incline was the initial cause of the explosion, and that it was propagated through the mine by coal-dust.

From the facts we have the Main and counter levels showing from 2 to 2½ per cent. of fire-damp almost continuously. Lane swears that conditions got worse towards the end of the morning shift the day of the explosion. We have the afternoon shift following on in quick succession; the production of coal goes on, so does the generation of gas, and it would be safe to assume that conditions were still worse at the end of the afternoon shift than what they were at the end of the morning shift; more especially would this be so when the brushing is generally taken up on the afternoon shift, and it has been stated that more gas is given off from the bottom. One might take it from this that conditions were getting near the danger-line by 11 p.m. of the second shift, and it would only need some derangement of the ventilation or some increase of gas given off to give explosive conditions in the Main and counter levels and crosscut off the same. Added to this, there is the dust created by the breaking of the coal at the face and the loading of the cars; this is further carried on by the running of cars and trips.

In the Third Report of Explosion in Mines Committee, page 9, they say that when coal-dust of sufficient fineness was present only 2½ per cent. of fire-damp was necessary to form an explosive mixture, and the richness of coal-dust or its greater inflammability influences the rapidity and consequent violence of an explosion of dust and gas mixtures.

In the Main level of the mine, at the farthest point reached, attention was drawn to a slight upheaval of the floor; this was between two caves, and Manager Caufield mentioned in his evidence that it may indicate some unusual disturbance at this point and would be likely to give off an extra amount of gas, which would naturally increase the percentage which was already in the air travelling.

Until the level is cleared up it would be premature to give any decision as to what might have happened inside of No. 6 incline.

CAUSE OF IGNITION.

The usual causes assigned to mine explosions are as follows:—

1. Ignition by naked light.
2. Blasting.
3. Blown-out shots.
4. Electricity.
5. Large caves caused sparking from the hard rocks.
6. Sparks from pick striking sulphur-balls or hard rock.
7. Broken or defective safety-lamp.
8. Safety-lamp becoming overheated and dirty and in a condition to pass flame.
9. Matches.

In reviewing the probable cause of ignition we can eliminate several of the factors mentioned above.

No. 1. No naked lights were used in this mine.

Nos. 2 and 3. There has been no blasting in this mine since December, 1914.

No. 4 can also be eliminated; the electricity in the mine was what was used in signalling on the slope haulage, and this is too remote to be considered.

No. 5. There were large caves in the mine, but as far as examined they seemed to be a product of the explosion.

No. 6. While explosions may have occurred from this source, it seems a remote chance and one that would be hard to accept until all other causes had been eliminated.

In my opinion the case narrows down to safety-lamps or matches. So far there has been no matches found on any of the bodies recovered, but there are yet twelve bodies to be recovered from the district where it seems the explosion originated, so this question cannot be settled until these bodies are recovered.

The same applies to a question of a defective or broken safety-lamp, and at the best it is very hard to determine after an explosion whether a lamp has been broken after or before an explosion.

On the question of ignition, it would be premature to give any decision until all the bodies and lamps have been found in the area inside of No. 6 incline.

In connection with what has already been said, it may here be stated that in actual experiment with a gauze safety-lamp it was found that, while it would not cause an external explosion in 4.5 per cent. of fire-damp when the air was moving at a velocity of 370 feet a minute and was free from dust, it passed the flame and caused an explosion in ten seconds where only the ordinary amount of dust was floating in the air.

Conditions like the above could easily occur in a few minutes in the levels of No. 3 mine, Coal Creek Colliery.

Condition of Safety-lamps found.

Lamp No. 1343.—Wm. Silverwood, found at bottom of No. 5 incline on siding. Lamp in good condition, except a small indentation in shield and outer gauze.

Lamp No. 1392.—Wm. Checkley, found at bottom of No. 5 incline on siding. Lamp in good condition, shows signs of heat.

Lamp No. 27.—Wm. Puckey, fireboss, found at bottom of No. 5 incline on siding. Slight indentation in both gauzes, caused by blow on shield; glass, gauze-ring, and gauzes in good condition. Inside gauze brighter than outside, being a newer gauze.

Lamp No. 1345.—Henry Falop. Glass gauzes and ring in good condition; slight indentation on outer gauze and shield.

Lamp No. 1302.—Wm. Bird, found at bottom of No. 5 incline on siding. Slight indentation in gauzes and shield; glass, rings, and gauze-ring in good condition.

Lamp No. 1310.—James Smith, found at face of No. 3 room off No. 6 incline. Gauzes in good condition and clean; glass and gauze-ring in good condition. (Wick in lamp knocked down.)

Lamp No. 1316.—Frank Smith, found at face of No. 3 room off No. 6 incline. Gauzes in good condition and clean; glass and gauze-ring in good condition; slight indentation near top of gauze (wick in lamp knocked down); coking on shield of lamp; evidence of heat on both gauzes.

Lamp No. 1367.—John Monks, found in room No. 4 off No. 6 incline, 50 feet from face. Gauzes in good condition, except slight indentation in them; shield indented, causing above condition on gauzes; glass and gauze-ring in good condition, but bottom gauze-ring very uneven on surface.

Lamp No. 1321.—F. Benezeth, found at bottom of slope. Gauzes in good condition, evidence of gas burning in gauze; slight indentation in outer gauze near the top; glass and lower gauze-ring in good condition. This man worked in No. 2 room off No. 6 incline.

Lamp No. 1366.—G. Giacomazzi, found at the bottom of the slope; body not found. Lamp blown to pieces; glass and bottom gauze missing; top part of lamp torn away from bottom.

Lamp No. 1388.—J. Atkinson, found in No. 5 room off No. 6 incline. Top part of lamp found only; shield badly broken.

Lamp (No Number); Maker's No. 578,875.—J. Machin, found at bottom of slope. Lamp in good condition; inner gauze shows evidence of heat; bottom gauze-ring has uneven surface.

Lamp No. 1318.—F. Puillandre, found at bottom of Main slope. This man worked in the Main level; his body has not yet been found. Lamp unbroken; gauzes in good condition; glass, rings, and lower gauze-ring in good condition.

Lamp No. 618.—P. Gormley, found at bottom off Main slope with body. Glass broken; gauzes in good condition, except slight indentation on outer gauze; bottom gauze-ring a little uneven on surface.

Lamp No. 3440.—J. Machin, found on top of Main slope. Gauzes in good condition, but outside one very dirty; glass in good condition; bottom gauze-ring in good condition.

Lamp No. 1313.—Hugh Melarky. Lamp all smashed to pieces.

Lamp No. 2556.—Lamp found in pasture at mule-barn; lamp broken; gauzes found all punctured, presumably by caulks on horse-shoes. No record of this lamp given out at lamp-house.

The lamps broken seem to all have been broken by the force of the explosion. Lamp No. 1321 shows evidence of gas burning in the gauzes; this would indicate that there had been gas in No. 2 room during that shift, and that may have been the reason Benezeth was on his way out so early.

Lamp No. 1392, of Wm. Checkley, and No. 1316, of F. Smith, also show signs of heat, but this may have been from the flame of the explosion, as the dust on the shield was coked.

VENTILATION OF THE MINE.

The Inspector's measurement of the air-current on April 5th shows 53,000 cubic feet passing in the fan-drift. Taking the measurements of March 23rd, 1917, at the various places, we have 29,250 cubic feet at a point 100 feet inside of the South slope, 17,160 cubic feet 500 feet from the face of the level, and 13,000 cubic feet in the return from the last working-face. Assuming that some of the total quantity of the 53,000 cubic feet at the fan is used for the outside split, we will take the quantity on the inside of the South slope as being the amount going in for the working-faces. Then 13,000 cubic feet from 29,250 cubic feet gives us a leakage of 16,250 cubic feet or 55.5 per cent.

The mine is not ventilated according to the best mining practice considering the conditions met with. The split for the working-places is on too long a drag and the air is coursed the wrong way. The air is taken in and coursed up through the Nos. 1, 2, 3, and 4 incline districts, then into Nos. 5 and 6 inclines, and around the rooms off No. 6 incline and into the Main levels. There is a heavy drag on the air through friction and a subsequent loss in quantity.

There is an enormous leakage as shown by previous figures. While the system of ventilation was within the "Coal-mines Regulation Act," it was not as good as it could have been made, and in the writer's opinion an error was made in not providing a separate split for the level places where there was so large a generation of gas.

Thirteen thousand cubic feet as measured going through the levels would have been adequate providing it had been fresh air, but from analysis shown it contained 1.99 per cent. methane before it reached the levels.

ATMOSPHERIC CONDITIONS.

There was no unusual disturbance in the atmospheric condition that would have any bearing on the explosion. The barometer readings for six days prior to the explosion are as follows: 26.1, 25.9, 25.9, 26, 26.1, and 26.3 inches; these readings are taken from the fireboss report-book.

REPORTS OF OFFICIALS.

These reports are made in a way that do not give the true conditions; there seems to be an inclination merely to report a cap of gas. No information is given as to the size of cap, and whether it is increasing or decreasing or at any time eliminated. Again, one fireboss will report a small cap of gas; another will report free from explosive gas.

The morning-shift firebosses' report on April 5th states: "I have examined this mine and find a small cap of gas in return air from face of crosscut to face of counter-level; all other places clear and in safe condition." He does not report any cap in the Main level, although he admitted, when giving evidence, there was a ½-inch cap, and we have Overman Biggs's testimony there was ½ inch; also Inspector Williams and Lane, the miner in the place, says there was ¾ inch. It seems strange the morning-shift fireboss did not report a cap in the level. From this it would seem that we cannot depend on the firebosses' reports as to giving the true conditions.

Coming to the overman's report, while the firebosses' reports show gas-caps practically all the month of March, he only reports a small cap four times. Even on April 5th, when Overman Biggs admitted that there was a ½-inch gas-cap in the Main level, he does not report it, but instead he reports: "I have examined No. 3 mine and found same free from explosive gas and in safe condition. The Inspector made his usual examination of the mine to-day and found the above-mentioned conditions." He does not state in the report that his fireboss found a ½-inch cap of gas in the return from the crosscut to the face of the counter-level. Therefore it seems that, so far as conveying information to the manager as to the state of the mine, the overman's report is worse than useless, as it tends to mislead him. It also seems very strange that, while the overman found a ½-inch gas-cap in the air in the level, he does not report it, and also correct the firebosses' report.

It seems to the writer that it would be better to record all gas-caps found, as to their length, and keep track of them until eliminated, and state as to whether they are just in thin stratums along the roof or whether the whole current is charged. The same should apply in cases of explosive gas, the quantity should be stated; from this it would be able to tell the true condition of affairs.

Testing of Lamps.

Rule 10, "Coal-mines Regulation Act, 1911," provides for every safety lamp in use to be tested in an explosive mixture of gas and air at least once every week. This was done at the Crowsnest Pass mines, but in the opinion of the writer lamps should be tested every time they go into these mines, under the conditions they are working. The same rule also provides that every lamp shall be submitted to a mechanical air test whenever assembled after being taken apart. I did not see any mechanical air test in use at these mines. It would therefore seem that for five days every week the only test the lamps were put to was the firebosses' test.

Dust.

Considerable discussion arose at the inquest as to whether this mine was dusty or not. From personal observations of the writer, he would class it as a dusty mine. There was a system of watering being done in this mine, but it was inadequate against the amount of dust being made. Rule 13, "Coal-mines Regulation Act," exempts this mine from any treatment of the coal-dust, as no explosives are used and safety-lamps only are in use.

Concluding Remarks and Suggestions.

A good deal of comment was made at the inquest on the amount of gas in the current that the men were allowed to work in, and the question arose as to what was termed the dangerous condition referred to in General Rule 8, "Coal-mines Regulation Act, 1911." This rule reads: "If at any time it is found by the person for the time being in charge of the mine or any part thereof that by reason of noxious gases prevailing in such mine or such part thereof, or of any cause whatever, the mine or said part is dangerous, every workman shall be withdrawn from the mine or such part thereof as is so found dangerous."

This rule practically leaves it to the person for the time being in charge to determine what is the dangerous condition. There is such a variation of opinion on this that no two persons will hardly agree. This matter was discussed for years in Great Britain by the different authorities, and was finally settled by inserting in the "Coal-mines Regulation Act, 1911," the following: "For the purpose of this section, a place shall be deemed dangerous if the percentage of inflammable gas in the general body of air in that place is found to be two and a half or upwards, or, if situate in a part of a mine worked with naked lights, one and one-quarter or upwards."

If a workman discovers the presence of inflammable gas in his working-place, he shall immediately withdraw therefrom and inform the fireman, examiner, or deputy.

The writer would suggest that some standard percentage of gas in the current be set for the British Columbia mines on the withdrawal of workmen.

In reviewing the cause and extent of mine explosions, there are three essential factors which enter into an explosion:—

First: There has to be an explosive mixture of gas, or of gas and dust.

Second: There has to be a means of ignition.

Third: There has to be sufficient quantity of gas, or of dust, to propagate it through the workings of the mine.

To deal with these factors and prevent as far as possible these explosions, the following should be done:—

First: Large volumes of air at moderate velocities should be circulated through the mines to keep them clear of gas, sufficiently that it would be impossible to find a trace of gas in the air-currents with a safety-lamp. This air should be well conducted to the working-places to prevent small accumulations in cavities at the faces. If dust is being made at the faces, this should be thoroughly allayed by means of water; the faces should be kept in a thoroughly saturated condition. Splitting of the air-current as often as possible should be resorted to, so that the gases given off in the district would not be carried into another.

Second: To prevent as far as possible ignition in the event of explosive conditions occurring. All means of ignition should be removed. In places or mines where danger is suspected no blasting should be allowed; no matches or material for striking a light should be allowed. If gauze safety-lamps are used, they should be tested in an explosive mixture daily before they are allowed in the mine. If the coal is friable and makes a large amount of dust, some approved form of electric lamp should be used for the actual working operations, and a gauze safety-lamp kept in the place for testing purposes only.

Third: Provision should be made that, if an explosion should occur, every means should be used to try and localize it.

The writer would suggest that all working-places where a large amount of dust is made should be efficiently watered to allay the dust, if not naturally damp. All haulage-roads, if not naturally damp, should be stone-dusted. At the entrance to each district stone-dust barriers should be erected to prevent the propagation of the explosion. In all leading places where gas is being generated, or in any places where danger from gas is suspected, stone-dust barriers or some other means of neutralizing should be adopted, so that in the event of a primary explosion occurring it would be stopped in its initial stages. If stone-dust barriers had been erected in the Main levels of the No. 3 mine, inside of No. 6 incline and also in Nos. 5 and 6 inclines, and the haulage-road had been stone-dusted, in all probability the explosion would have been confined to the area inside of No. 6 incline, with a consequent saving of human life and property.

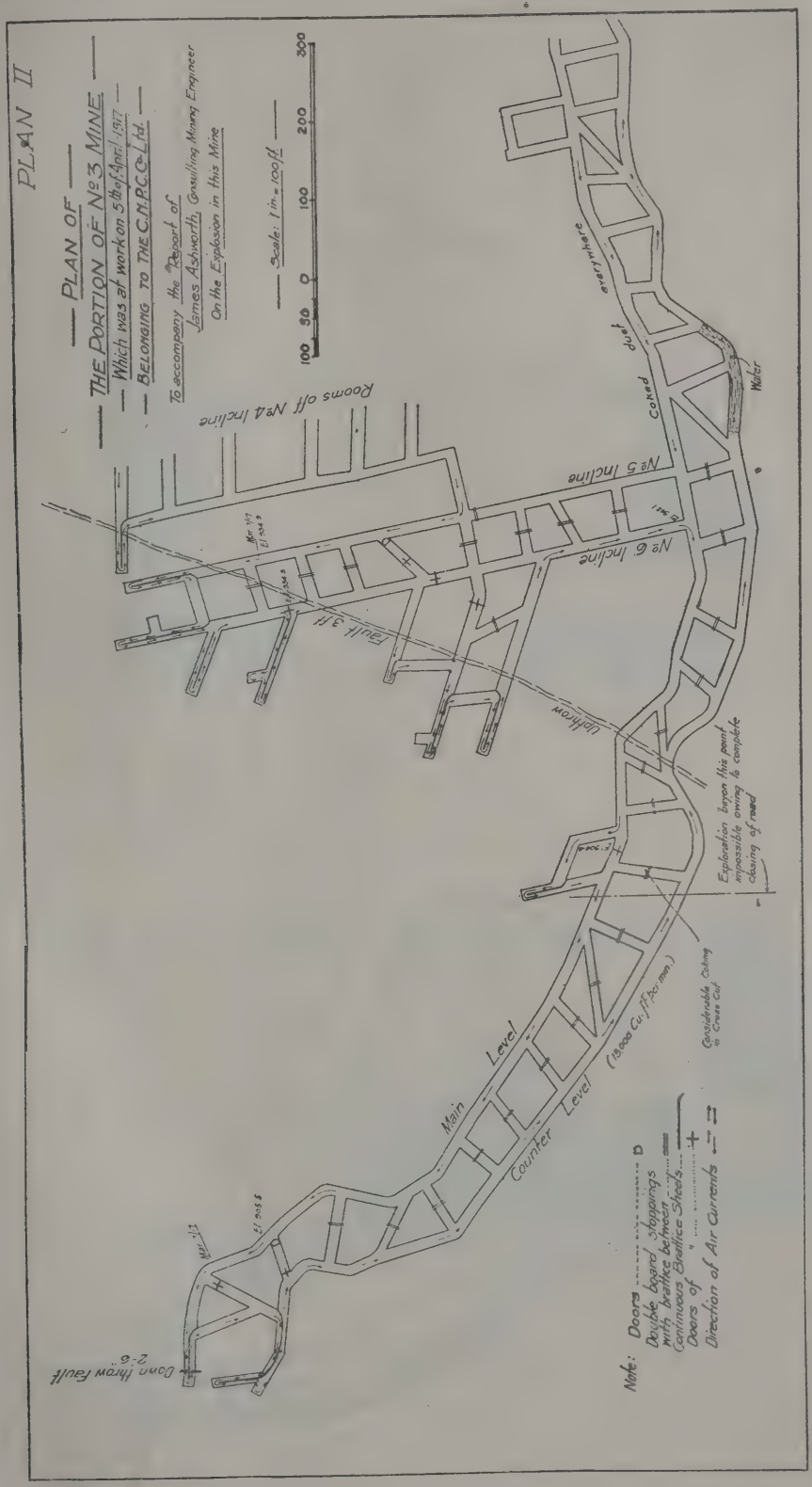
It is the writer's opinion that in all advance headings of gaseous mines frequent safety-zones should be erected to prevent the spreading of any local explosions that might occur.

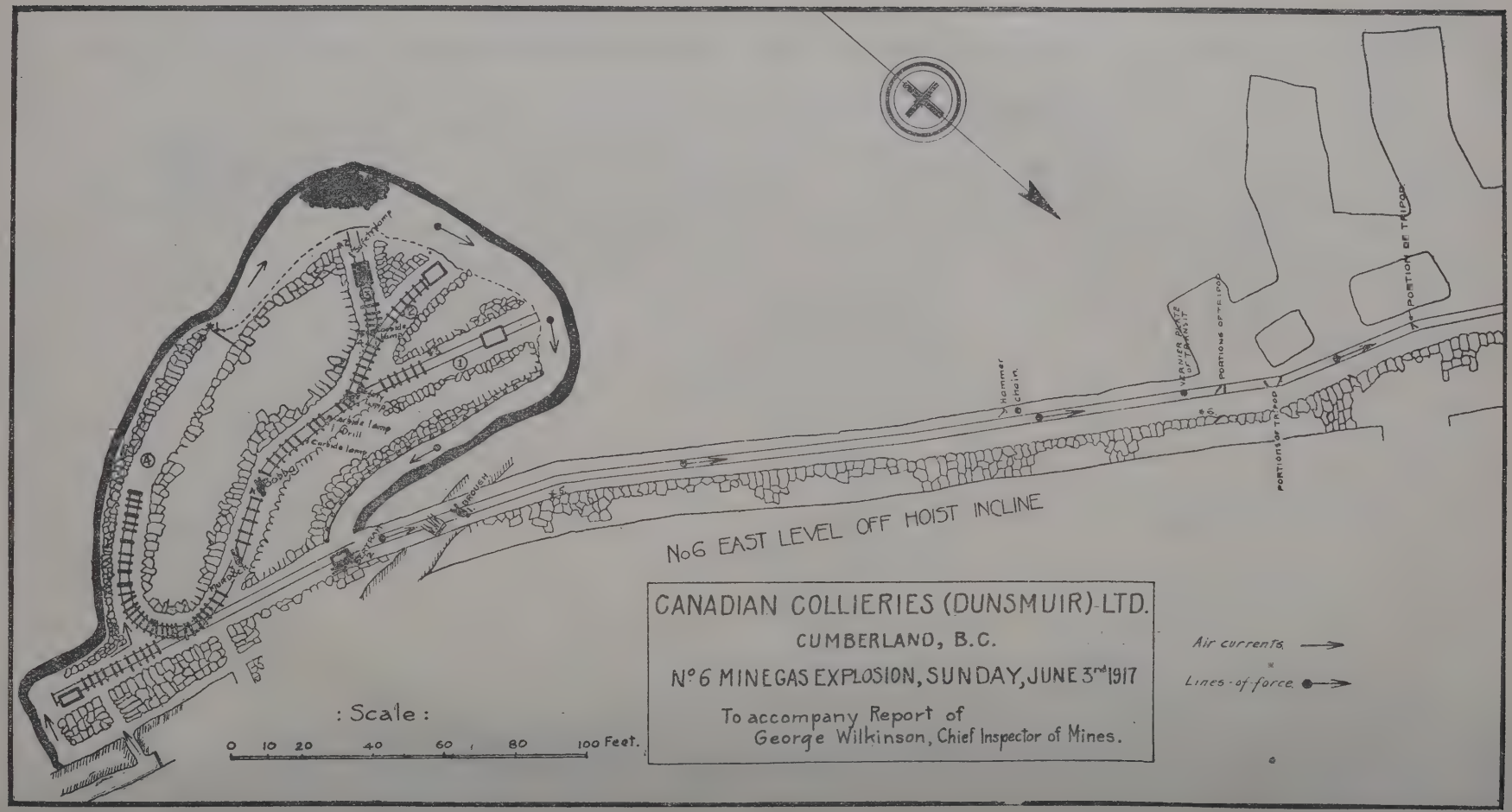
In reviewing the mine explosions occurring in the past, we find them getting more violent in our modern well-ventilated mines.

It is seldom we hear of a case of individual burning to a man in the present day. In the writer's opinion we do not have far to look for a reason. Years ago the writer remembers when there used to be lots of cases of individual burning of some miner; it would generally be a case of some miner lighting some gas in his place and getting burned, and that would be the extent of the explosion. Natural safety-zones were kept in the early days by insufficient ventilation, and when a local explosion did occur it died out for lack of oxygen. In the early days when the mines were using naked lights it was no uncommon thing for gas to be lighted up several times daily, and it would just be a local flash and then go out. What would be the result now if a local explosion occurred in most of the mines? It would spread over all the mine. There must be some reason. In recent years in mines the whole tendency has been improvement in ventilation, without paying sufficient attention to other factors which play just as important a part. Mines that use safety-lamps and do not use explosives are exempt from treating coal-dust.

A mine with a normal percentage of dust in suspension in the air, in the event of a primary explosion of gas, is just as dangerous as a mine full of gas; more especially is this so in well-ventilated mines where there is a plentiful supply of oxygen, where the flame from the explosion distils the carbon from the dust, forming CO, which is combustible and transmits the flame of the explosion through the workings of the mine.

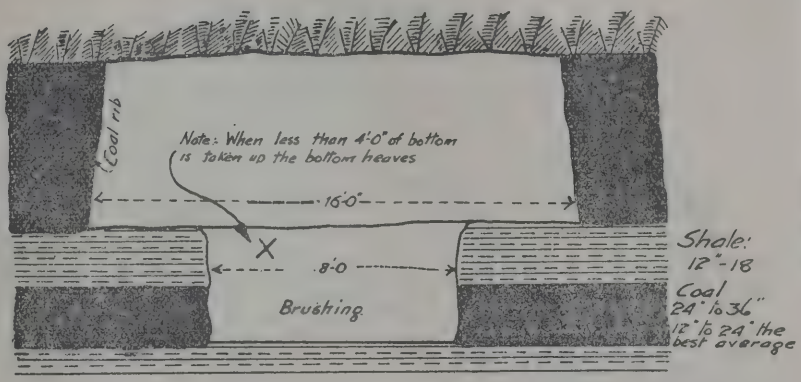
Appended to this report is a plan of No. 3 mine, showing positions of bodies found and general lines of explosive blast and direction of ventilating-current.


PLAN II
PLAN OF
THE PORTION OF No 3 MINE
Which was at work on 5th of April 1917
BELONGING TO THE C.M.P.C. & L.td
To accompany the Report of
James Ashworth, Consulting Mining Engineer
On the Explosion in this Mine
Scale: 1 in = 100 ft
300 200 100 0 50 100
Rooms off No 4 Inclines
No 5 Incline
No 6 Incline
Coked dust everywhere
Water
Fault 3 ft
Uphthrow
Exploration beyond this point impossible owing to complete closing of road
Main Level
Counter Level (1800 Cu ft per min.)
Considerable Caving in Cross Cut
Down throw Fault 2-3
Doors
Double board Stoppings with brattice between
Continuous Brattice Sheets
Doors of "
Direction of Air Currents
Note:

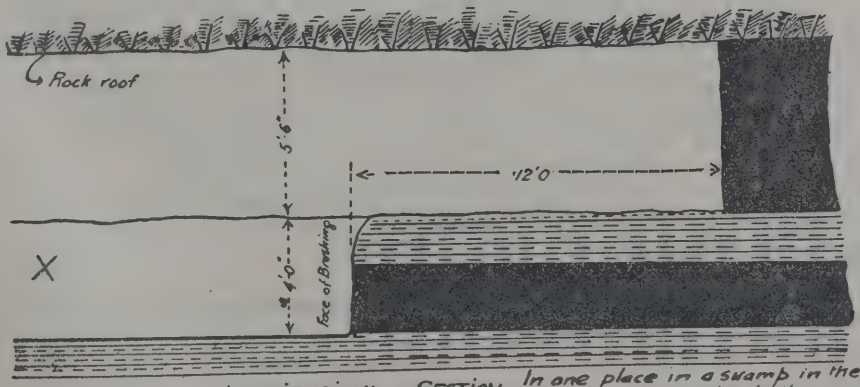

No6 EAST LEVEL OFF HOIST INCLINE
Hammer
Chain
PORTION OF TRIPOD
PORTIONS OF TRIPOD
Carbide lamp
Drill
Carbide lamp
Carbide lamp
: Scale :
0 10 20 40 60 80 100 Feet.
CANADIAN COLLIERIES (DUNSMUIR) LTD.
CUMBERLAND, B.C.
No 6 MINE GAS EXPLOSION, SUNDAY, JUNE 3rd 1917
To accompany Report of
George Wilkinson, Chief Inspector of Mines.
Air currents
Lines of force

SECTIONS
— OF —
Nº 6 INCLINE Nº 3 MINE
COAL CREEK

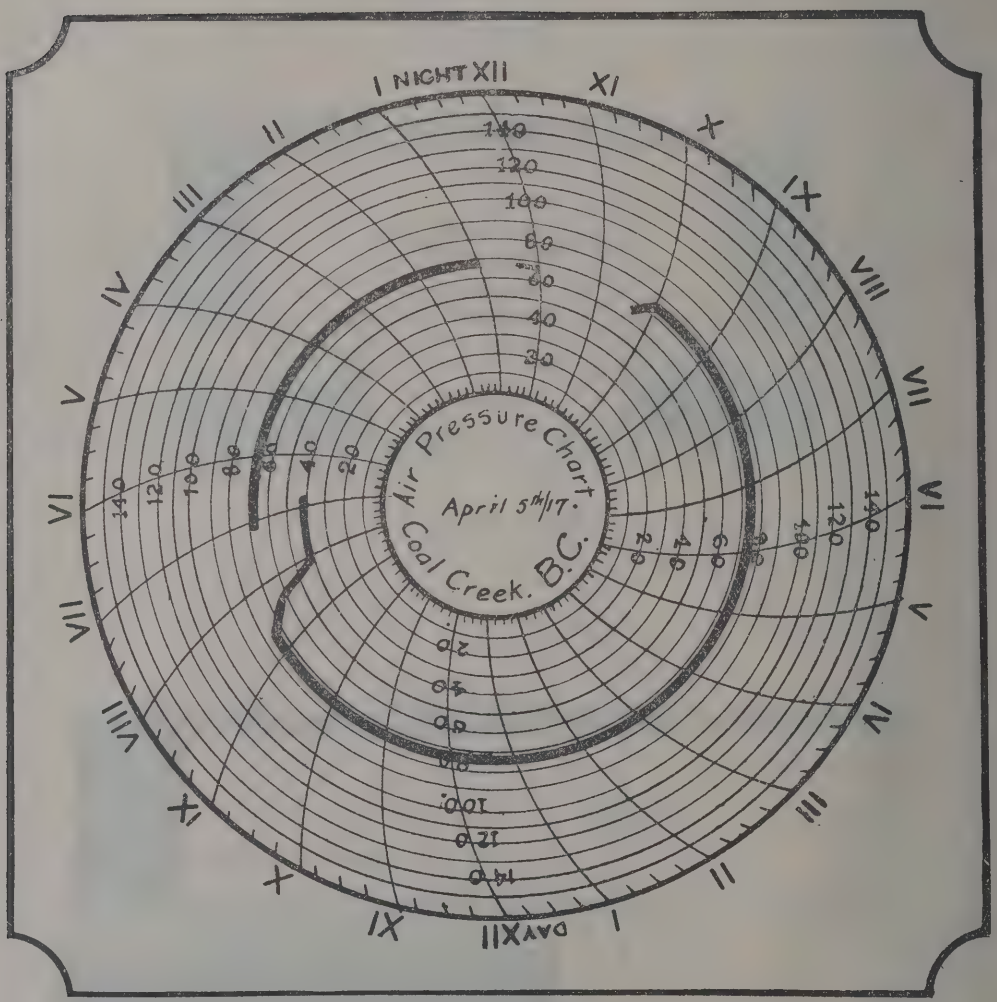
Scale:- 1"-4'0"



CROSS SECTION



LONGITUDINAL SECTION In one place in a swamp in the 1-23-9 inclines the bottom coal is 8ft thick


NIGHT XII
DAY XII
Air Pressure Chart
April 5th/17.
Coal Creek. B.C.

EXPLOSION AT No. 3 MINE, COAL CREEK COLLIERY.

Report by Thomas Graham (late Chief Inspector of Mines).

On or about 10.10 p.m., April 5th, 1917, a disastrous explosion occurred in No. 3 mine of the Coal Creek Colliery, situated at Coal Creek, B.C., and owned and operated by the Crow's Nest Pass Coal Company, Limited. The explosion caused the death of thirty-four persons, this being the total number in the mine at the time of the explosion.

A telegram from T. H. Williams, Inspector of Mines, Fernie, stating that an explosion had occurred at No. 3 mine, reached me at 11.30 p.m. that night. Having that day severed my connection as Chief Inspector of Mines to the Department, to accept a position with the Canadian Collieries (Dunsmuir), Limited, I communicated the contents of telegram to you via long-distance telephone at Nanaimo, B.C.

Through you permission was obtained from H. S. Fleming and J. M. Savage, managing director and general manager, respectively, of the Canadian Collieries (Dunsmuir), Limited, for my leave of absence, and under telephonic instructions, confirmed by your letter of April 7th, I proceeded to Coal Creek as your representative until the arrival of the new Chief Inspector of Mines, and to remain as long as my successor deemed my services necessary.

In company with Dudley Michell, First-aid Instructor to the Department, I left Victoria on the afternoon of the following day, and reached Fernie on the evening of the 8th, being joined en route by Robert Strachan, Inspector of Mines, Merritt, B.C.

Situation of Colliery.

The Coal Creek Colliery is situated on Coal creek, a tributary of the Elk river, and lies about five miles east of Fernie. The colliery is served by the Morrissey, Fernie & Michel Railway, which makes connections with the Canadian Pacific Railway and the Great Northern Railway at Fernie.

The mines are opened at a point on Coal creek where the coal-seams in their eastward pitch reach the level of the creek, the strike of the seam being approximately at right angles to the valley; the openings consist of drifts in the seams, starting on each side of the valley. At the point of opening the valley of Coal creek is about 1,000 feet in width, aand is spanned with a steel tipple to which the coal from the various mines on each side of the valley is conveyed for preparation and loading. The mountains on each side of the creek rise to a height of 2,500 feet.

Nos. 2 and 3 mines are opened on the same seam, the mine-mouths converging from a common point at the south end of the tipple and at tipple level, No. 2 mine being on the strike, whilst No. 3 follows the dip by slope; the seam worked is locally known as No. 2 seam and in the geological series is the lower of the seams now worked at this colliery.

These two mines were opened about 1898 and were, practically speaking, one mine, as connections were made at many points. The system of operation was an irregular pillar and stall, the pillars being much too small for the future extensive operations needed to reach the main field, in view of the expected heavy cover, which reaches 2,600 feet at one mile from the mine portal.

No. 2 mine was the scene of a disastrous explosion on May 22nd, 1902, in which 128 lives were lost. This explosion devastated the No. 1 South levels off the slope in No. 3 mine, and the only persons saved from either mine were those operating on the North levels off No. 3 mine.

In 1907 and 1908, through irregular modes of operation, No. 2 mine was subject to a series of disastrous "bumps" accompanied with loss of life, and the Department of Mines at that time placed a restrictive prohibitory measure on the area so affected. Following the placing of the proscribed area in No. 2 mine, new levels were started off No. 2 mine to the westward and off No. 3 slope to the eastward to reach the inby portions of the field lying to the south and beyond the proscribed area. Levels were started off No. 3 slope, 1,600 feet from the portal, and were known as No. 2 South, a barrier pillar being left to the westward between these and the restricted area, and that portion of the old No. 2 and No. 3 workings lying outby the proscribed area was used as a return airway for No. 3 mine, and during the last few years a line of heavy stoppings were erected between this area used for return purposes and the old proscribed area. To the dip of No. 2 South level off No. 3 mine an attempt to operate by the long-wall advancing method was tried, but after spasmodic attempts was finally abandoned, and this area is now filled with water.

Two Main levels were finally pushed as feelers into the field, following the contour of the seam, and off these four inclines were pushed to the south-west, leaving a large barrier pillar outby and adjacent to the most southerly portion of the proscribed area of No. 2 mine. A few stalls were turned off No. 4 incline and paralleling the levels. One thousand feet beyond No. 4 incline two more inclines were started, running due west, and known as No. 5 and No. 6, whilst the levels projected some 1,200 or 1,300 feet beyond. The operations at the time of the explosion were confined to the Main levels, Nos. 5 and 6 inclines, and five stalls off No. 6 incline.

In 1911 a new mine known as No. 1 East was opened on what is locally known as No. 1 seam, lying in the series 150 feet vertical above Nos. 2 and 3 mines. This mine was projected to operate over the same area formerly worked by Nos. 2 and 3, and in view of experience gained in No. 2 through irregular modes of operation and excessive extraction on the first operations, this mine was planned to overcome such defects; the plans were rigidly adhered to and only 25 per cent. of the coal was recovered on first operations. (*See* plan of mine, Minister of Mines' Report, 1915.)

The mine was steadily developed, and in the fall of 1916 was producing 1,500 tons a day, the line of the old proscribed area underlying in No. 2 mine had been passed, and whilst the coal was more or less disturbed in the area, and some difficulty had been met in maintaining some roadways, a general impression prevailed that the mode of operation had been successful in overcoming the "bump" troubles. This impression was completely upset by the great "bump" of November, 1916, which devastated No. 1 East mine, shaking the surrounding country like an earthquake and completely destroying all that portion of the mine lying inby a line running east and west near No. 10 East level. This phenomena, together with the problems due to excessive emanations of gas from the field, was made the subject of a special examination and report by George S. Rice, Chief Mining Engineer to the United States Bureau of Mines, a copy of which is in your hands.

No. 3 mine, as already stated, is opened by a slope, the South levels leaving this some 1,600 feet from the portal; the levels follow the contour and extend from the slope about 7,000 feet. Haulage on the slope was by direct rope, and on the level from the slope to No. 1 incline by compressed-air locomotives, the inside gathering being by animal haulage.

The seam as worked in No. 3 mine is a high-grade bituminous coal from 5 to 5.5 feet in thickness, the floor being rather soft carbonaceous shale; the roof is strong hard sandy shale. The coal is friable, powdering finely and containing much gas; it is rather easily mined, especially when worked on the face-planes, but even on the butts it is mined without the use of explosives. A sample taken from the face of No. 2 incline in December, 1916, by Dudley Michell, of the British Columbia Mines Department, under direction of George S. Rice, and analysed by A. Fieldner, Chemist at the Laboratories of the United States Bureau of Mines, Pittsburgh, Pa., gave the following contents (*see* Report of G. S. Rice, Coal Creek "Bumps"):—

Proximate Analysis of Air-dried Coal.—Moisture, 0.55; volatile, 28.52; fixed carbon, 63.83; ash, 7.10; sulphur, 0.54; B.T.U., 14,319. From Memoir No. 59, Canadian Geological Survey.

Proximate Analysis of Air-dried Coal, No. 2 Mine.—Moisture, 1.3; volatile, 26.3; fixed carbon, 64.7; ash, 9; sulphur, 0.5; B.T.U., 13,820.

MINE PRODUCTION.

The mine was producing from 250 to 300 tons a day of two eight-hour shifts, and about thirty-four to thirty-six men a shift. A few men worked on the third shift brushing roadways.

VENTILATION.

The mine was ventilated by a Wilson fan, belt-driven, and was operated as an exhausting unit producing 50,000 cubic feet a minute, with a water gauge of 3½ inches.

REPORTS ON MINE.

Inspectors' Reports.

Crow's Nest Pass Coal Company: Colliery known as Coal Creek No. 3.
Part of mine examined: Mine. Ventilation: Good.
Explosive gas: None. Small cap of gas in the last places on the air and in the return air.
Roadways: Good. Timbering: Good.
Remarks: I measured 32,000 cubic feet of air a minute for the use of forty-four men and eight horses.
Dated at Coal Creek, B.C., this 9th day of January, 1917.

(Signed.) T. H. WILLIAMS,
Inspector of Mines.

Crow's Nest Pass Coal Company: Colliery known as Coal Creek No. 3.
Part of mine examined: All the mine.
Ventilation: Poor at the face of the South level, but generally good throughout the rest of the mine.
Explosive gas: Face of South level, crosscut off South level, and counter of South level. These three places were fenced off and the men withdrawn.
Roadways: Good, but the South level haulage-road is dusty in places. Timbering: Good.
Remarks: I measured 35,000 cubic feet of air a minute on the main intake for the use of forty-three men and eight horses. This quantity is divided into two splits: South level split, 25,500 cubic feet a minute for forty men and eight horses, and for the Slope split I measured 6,000 cubic feet for three men and one horse.
Dated at Coal Creek, B.C., this 8th day of February, 1917.

(Signed.) GEORGE O'BRIEN,
Inspector of Mines.

Crow's Nest Pass Coal Company: Colliery known as Coal Creek No. 3.
Part of mine examined: Mine. Ventilation: Good.
Explosive gas: None. Roadways: Good. Timbering: Good.
Remarks: I measured 35,000 cubic feet of air a minute for the use of forty-three men and seven horses. There is a small cap of gas in the Main level and counter.
Dated at Coal Creek, B.C., this 9th day of March, 1917.

(Signed.) T. H. WILLIAMS,
Inspector of Mines.

Crow's Nest Pass Coal Company: Colliery known as Coal Creek No. 3.
Part of mine examined: Mine. Ventilation: Good.
Explosive gas: None. There is a ½-inch cap in the Main level, counter-level, and crosscut off it.
Roadways: Good. Timbering: Good.
Remarks: I measured 29,250 cubic feet of air a minute for the use of forty-three men and seven horses.
Dated at Coal Creek, B.C., this 5th day of April, 1917.

(Signed.) T. H. WILLIAMS,
Inspector of Mines.

Reports of Gas Committee of No 3 Mine, Coal Creek Colliery.

Mine: No. 3. Date: January 6th, 1917.
We, the undersigned, have this day examined the whole of No. 3 mine and find gas in No. 5 incline. All other places clear of explosive gas. Timber, roof, and sides: Good.

(Signed.) WM. BIRD; JNO. CHARNOCK.

Mine: No. 3. Date: February 17th, 1917.
We, the undersigned, have this day examined the whole of No. 3 mine and find a small cap of gas in No. 3 room off No. 4 incline, also gas in crosscut off South slope, same fenced off. Timber, roof, and sides: Good.

(Signed.) WM. BIRD; JNO. CHARNOCK.

Mine: No. 3. Date: March 17th, 1917.
We, the undersigned, have this day examined the whole of No. 3 mine and find gas in crosscut off counter. All other places clear. Timber, roof, and sides: Good.

(Signed.) WM. BIRD; JNO. CHARNOCK.

Reports of Overman from April 1st to 5th, 1917.

April 1st, 1917.

Sunday, mine idle. The mine was fenced off from 3.30 p.m. on Saturday until 6 p.m. on Sunday. Afternoon-shift firebosses report No. 3 mine free from explosive gas and in safe condition. Total men in mine, 4.

(Signed.) J. BIGGS.

April 2nd, 1917.

I have examined the main roads and found same in safe condition. Firebosses report No. 3 mine free from explosive gas and in safe condition. Total men in mine, 30.

(Signed.) J. BIGGS.

April 3rd, 1917.

I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Total men in mine, 81.

(Signed.) J. BIGGS.

April 4th, 1917.

I have examined No. 3 mine and found same free from explosive gas and in safe condition. Firebosses report No. 3 mine as stated above. Total men in mine, 90.

(Signed.) J. BIGGS.

April 5th, 1917.

I have examined No. 3 mine and found same free from explosive gas and in safe condition. The Inspector made his usual examination of the mine to-day and found the above-mentioned conditions. Afternoon- and night-shift firebosses report a little gas in crosscut off counter-level. Day-shift firebosses report all clear. Total men in mine, 94.

(Signed.) J. BIGGS.

Report of Firebosses from April 1st to 5th, 1917.

Mine: No. 3. Coal Creek Colliery.
District: Entrances. Date: April 1st. Time: 6 p.m.
Remarks: I have removed fences to examine main roads to pumps.

(Signed.) J. B.; W. R. PUCKEY.

Mine: No. 3, Coal Creek Colliery.
District: Main Roads. Date: April 1st. Time: 7.30 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined main roads and found them free from explosive gas and in safe condition.

(Signed.) J. B.; W. R. PUCKEY.

Mine: No. 3, Coal Creek Colliery.
District: Mine roads. Date: April 1st, 1917. Time: 10 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in safe condition.

(Signed.) J. B.; J. MCCOURT; W. R. PUCKEY.

Mine: No. 3, Coal Creek Colliery.
District: Mine. Date: April 2nd, 1917. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas; all places clear and in safe condition.

(Signed.) J. B.; J. THOMPSON; J. MCCOURT.

Mine: No. 3, Coal Creek Colliery.
District: Mine. Date: April 2nd, 1917. Time: 2.50 p.m.
Roof and sides: Safe. Ventilation: Good.
Barometer: 26.1. Thermometer: 42° Fahr.

(Signed.) J. B.; W. R. PUCKEY; J. THOMPSON.

Mine: No. 3, Coal Creek Colliery.
District: Mine. Date: April 2nd, 1917. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in safe condition.

(Signed.) J. B.; J. MCCOURT; W. R. PUCKEY.

Mine: No. 3, Coal Creek Colliery.
District: Mine. Date: April 3rd, 1917. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas; all places clear and in a safe condition.

(Signed.) J. B.; J. THOMPSON; J. MCCOURT.

Mine: No. 3, Coal Creek Colliery.
District: Mine. Date: April 3rd, 1917. Time: 2.45 p.m.
Roof and sides: Safe. Ventilation: Good.
Barometer: 26.3 inches. Thermometer: 42° Fahr.
Remarks: I have examined this mine and found it free from explosive gas and in safe condition.

(Signed.) J. B.; W. R. PUCKEY; J. THOMPSON.

Mine: No. 3, Coal Creek Colliery.
District: Mine. Date: April 3rd, 1917. Time: 10.30 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in a safe condition.

(Signed.) J. B.; J. MCCOURT.

Mine: No. 3, Coal Creek Colliery.
District: Mine. Date: April 4th, 1917. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found it free from explosive gas and in safe condition.

(Signed.) J. B.; J. McCourt.

Mine: No. 3, Coal Creek Colliery.
District: Mine. Date: April 4th, 1917. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places in safe condition.

(Signed.) J. B.; W. R. Puckey; J. Thompson.

Mine: No. 3, Coal Creek Colliery.
District: Mine. Date: April 4th, 1917. Time: 11 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a little gas in crosscut off counter-level; all other places clear and in a safe condition.

(Signed.) J. B.; J. McCourt; W. R. Puckey.

Mine: No. 3, Coal Creek Colliery.
District: Mine. Date: April 5th, 1917. Time: 7 a.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a little gas in crosscut off counter-level; all other places clear and in safe condition.

(Signed.) J. B.; J. Thompson; J. McCourt.

Mine: No. 3, Coal Creek Colliery.
District: Mine. Date: April 5th, 1917. Time: 3 p.m.
Roof and sides: Safe. Ventilation: Good.
Remarks: I have examined this mine and found a small cap of gas in return air from face of crosscut to face of counter-level; all other places clear and in safe condition.

(Signed.) W. R. Puckey; J. Thompson.

The ventilation was well conducted to the faces. The mine is classed as one of the most gaseous known, giving off large volumes of gas at all times. A series of mine-air samples taken over a period of time ranging from November, 1915, to March, 1917, and comprising some sixteen samples, show the mine ventilation to be carrying off 3,500 cubic feet of methane a ton of coal produced.

The emanation of gas from the face is not a constant quantity, but varies from time to time, coming in surges, necessitating the temporary retirement of the workmen from the face for a period after the occurrence of these surges, to allow time for clearance of the gas by the air-current.

The following are samples of air analysis taken from the Coal Creek mines. For complete set of samples *see* Chief Inspector's Report, 1916, in Minister of Mines' Report for that year.

November 18th, 1915.

Samples of Air Analysis.

Mine Working.

Sample No. 17, taken by T. H. Williams at No. 3 mine, Coal Creek, South Level district, 100 feet on return side of last working-place. Safety-lamp showed a ½-inch cap.

Chemical Analysis.	Per Cent.	Technical Analysis.	Per Cent.
Carbon dioxide	0.22	Air	96.03
Oxygen	20.10	Fire-damp	2.46
Methane	2.46	Black-damp	1.51
Nitrogen	77.22		

February 23rd, 1916.

Mine Idle.

Sample No. 31, taken by T. H. Williams at No. 3 mine, Coal Creek, South Level district, 200 feet on return side of last working-place. Safety-lamp showed a ½-inch cap.

Chemical Analysis.	Per Cent.	Technical Analysis.	Per Cent.
Carbon dioxide	0.15	Air	97.09
Oxygen	20.32	Fire-damp	2.29
Methane	2.29	Black-damp	0.62
Nitrogen	77.24		

February 24th, 1916.

Mine Working.

Sample No. 34, taken by T. H. Williams at No. 3 mine, Coal Creek, South Level district, about 200 feet on return side of last working-place. Safety-lamp showed a 5/8-inch cap.

Chemical Analysis.	Per Cent.	Technical Analysis.	Per Cent.
Carbon dioxide	0.16	Air	96.99
Oxygen	20.30	Fire-damp	2.05
Methane	2.05	Black-damp	0.96
Nitrogen	77.49		

October 4th, 1916.

Mine Working.

Sample No. 71, taken by T. H. Williams at No. 3 mine, Coal Creek, South Level split, 300 feet from last working-place on return side. Safety-lamp showed a 5/8-inch cap.

Chemical Analysis.	Per Cent.	Technical Analysis.	Per Cent.
Carbon dioxide	0.21	Air	96.89
Oxygen	20.28	Fire-damp	2.06
Methane	2.06	Black-damp	1.05
Nitrogen	77.45		

March 23rd, 1917.

Mine Working.

Sample No. 90, taken by T. H. Williams at No. 3 Coal Creek mine, South level, 150 feet on return side of last working-place. Safety-lamp showed a 3/4-inch cap.

Chemical Analysis.	Per Cent.	Technical Analysis.	Per Cent.
Carbon dioxide	0.38	Air	94.94
Oxygen	19.87	Fire-damp	3.43
Methane	3.43	Black-damp	1.63
Nitrogen	76.32		

These large emanations of gas have made necessary the reduction of the number of men working on a split of air, in order to keep the air-current from carrying excessive percentages of gas before reaching the last working-place in the split. The number of men breaking down coal has rarely exceeded twenty or twenty-five, as it has been assumed that the volume of gas given off was in proportion to the quantity of coal broken down.

Recent returns of analyses from the field rather upset this theory, and tend to show that the volume of gas given off is rather in proportion to the area of coal exposed in ribs and faces than in the quantity broken down.

I am informed by Mr. Wilkinson, Chief Inspector of Mines, that a series of mine-air samples collected in the Michel Colliery, after a suspension of operations, due to labour troubles, for over thirty days, show a larger percentage of gas given off, with, in some instances, an increase of quantity of ventilation in circulation in the mine.

OLD NO. 3, MICHEL COLLIERY.

In one instance a volume of 85,000 cubic feet a minute has been circulating in the mine continuously and no coal has been broken down for a period of thirty-four days, and yet the entire current was carrying 1.55 per cent. of methane, an increase of $^{7}/_{100}$ of 1 per cent. above that given off when mine was working.

Comparative Tests of the Outflow of Gas at Coal Creek Colliery, taken when the Mines were Working, also when Idle.

Date.	Mine.	District or Split.	Per Cent. of CH_4.	Quantity of Air.	Remarks.
March 21, 1917	B	Main return	1.13	37,000	Working.
May 2, "	"	"	0.77	42,300	Idle 26 days.
March 21, "	"	Incline and left side of slope	2.15	12,000	Working.
May 2, "	"	Ditto	0.44	12,000	Idle 26 days.
March 21, "	"	Right side of slope	0.86	8,000	Working.
May 2, "	"	"	1.14	8,000	Idle 26 days.
March 21, "	No. 1 North	Main return	0.28	33,000	Working.
May 2, "	"	"	0.18	35,000	Idle 27 days.
March 21, "	No. 1 South	"	2.44	27,000	Working.
May 3, "	"	"	1.56	24,000	Idle 26 days.
Oct. 3, 1916	No. 2	"	0.98	21,000	Working.
May 2, 1917	"	"	0.72	42,000	Idle 26 days.
March 23, "	No. 1 East	No. 18 room	2.78	24,800	Working.
May 3, "	"	"	1.50	18,400	Idle 27 days.
Nov. 2, 1916	"	Main return	1.72	160,000	Working.
May 3, 1917	"	"	0.99	136,000	Idle 27 days.

Michel Colliery.

March 7, 1917	Old No. 3	Main return	1.48	80,000	Mine working.
April 4, "	"	"	1.48	80,000	Idle 96 hours.
May 3, "	"	"	1.55	85,000	" 34 days.
April 4, "	"	No. 3 Slope	1.63	28,000	" 96 hours.
May 3, "	"	"	1.53	32,000	" 34 days.
March 9, "	No. 3 East	No. 6 East	0.78	46,200	Working.
April 4, "	"	"	0.79	42,000	Idle 100 hours.
May 4, "	"	"	0.76	48,000	" 35 days.
March 9, "	"	Main return	0.83	91,000	Working.
April 4, "	"	"	0.90	94,500	Idle 100 hours.
May 4, "	"	"	0.87	91,000	" 35 days.

The explosion in No. 3 mine, Coal Creek, on April 5th was the most destructive that in my long experience I have ever seen. The mine had a splendid roof and in many instances no timber supports were necessary in the main roadways, and it was confidently expected that recovery-work would only be retarded by the time necessary to restore ventilation. On the contrary, however, the greater proportion of the mine roadways were heavily caved; in many instances these caves were from 1,000 to 1,200 feet in length, and it would seem as if the pressures set up by the explosion were wave-like in motion, having extremes of high pressure to points of low pressure amounting to vacuums. That the intense pressures entered the crevices in the roof strata, and then the sudden release of pressure caused the extremely heavy caving, seems possible. The extent of this caving is shown by colour on the plan submitted with this report, and from a point about 500 feet inby the slopes are almost continuous to the face.

The initial cause is hard to determine, as an examination of the mine discloses that the lines of force came from the two advance Main levels, but owing to excessive caving these were completely blocked, and the faces have so far not been reached, and may possibly not be reached before the latter end of the present year. It would therefore be impossible to make any definite statement as to the point of origin or the initial cause, as it could only be mere supposition. As no explosives were used in the mine or colliery, we can eliminate the "blown-out-shot" theory, and therefore must assume an ignition of gas from some cause; the explosion in general as propagated throughout the mine was, however, undoubtedly supported by coal-dust.

As to whether the gas ignition was due to a defective or overheated lamp or a quantity of gas given off by one of the frequent surges, thrown into atmosphere by a "bump" or blow-out and a lamp-failure, can only be a matter of mere conjecture at this time. I, however, believe

that the point of ignition was on the two Main levels at some point inby that reached by the exploration parties, and was carried from this point throughout the entire mine by coal-dust.

The difficulties encountered by the rescue parties were many and serious, and many times hope of being able to reach the inner workings was almost given up. There were a number of fires encountered, some of them being of alarming proportions, and in many cases roadways had to be constructed through caves, with little opportunity to dispose of the debris, except passing it back from one to another over distances running into hundreds of feet.

The work accomplished, under the circumstances and in the time taken, speaks volumes for every man engaged in the hazardous work, and especially to those responsible for the organization of the same.

Despite the fact that the outer 500 feet of No. 2 South level and the 1,600 feet of the slope were wet, and contained little to support the explosion, considerable velocity must have existed even to the mine-mouth.

The body of Hugh Malarky, pumpman, was found about 25 feet inside the portal; this body had been thrown with much violence against the timbers, and a safety-lamp, supposed to have been issued to this man, was several days afterwards found in the mule pasture 1,000 feet from the mine-mouth.

Three bodies were found at the intersection of No. 2 South level and the slope, one of which, No. 2, F. Benezeth, showed signs of life, but he died shortly afterwards. With the exception of this one victim, it is my opinion that all the others were instantly killed.

On Monday, April 9th, 1917, or four days after the explosion, the party reached the Nos. 1 and 2 inclines; these were explored that afternoon, but difficulty was found in reaching the inner inclines Nos. 5 and 6, owing to the rooms between Nos. 4 and 5 inclines being heavily and completely caved. There being a lack of ventilation to keep the Nos. 1, 2, 3, and 4 inclines clear and progress farther into the mine, it was decided to return to the overcast, some 2,000 feet outby, and take the overcast out, converting the counter or lower level into an intake to No. 4 incline; from this point to utilize the chain pillar to the west of the level between Nos. 4 and 5 inclines and save building stoppings in all the crosscuts between the two levels over the distance. This placed Nos. 1, 2, 3, and 4 on the return instead of on the intake air.

Tuesday, April 10th. Five bodies were found on the parting outside No. 5 incline; all of these bodies were badly burned.

Wednesday, April 11th. The face of No. 1 room off No. 6 incline was reached and the bodies of the miners were found at the face. No lamps were found; these are believed to be under cap-rock which was down close to the face. The face of this room was square and the room heavily caved.

The bodies of the men who worked in No. 2 room were found at the foot of the slope; this room was heavily caved.

No. 3 Room.—Here the bodies of Frank and James Smith, father and son respectively, were found; both bodies were badly burned and were close up to the face. The room was caved to within a few feet of the face; there was a slight trace of coking on the floor. The face-line was square and the coal sounded loose on face.

No. 4 Room.—This room and crosscut were heavily caved, and on the upper rib, about midway between the incline and crosscut, the clothes, dinner-pails, and tools of the workmen were found. The bodies were afterwards found near this place, but under a cave.

No. 5 Room.—Heavily caved near the face; the bodies were found under the tail of the cave at face. The face was square and coal loose, but no evidence of coke was found.

No. 6 Incline was not caved above the last crosscut, but all timbers were blown out. The workmen from this room were found amongst those found at the parting outside No. 5 incline. A blue-print showing plan and section of this place accompanies report. The sketch-plan shows the mode of brushing in the main haulage-roads.

In a crosscut off this incline, leading to No. 5 incline, the bodies of Campbell and Coates were found; both bodies were under a cave.

No. 5 Incline.—This place was not caved above the crosscut; two bodies were found near a car at the last crosscut; the car was badly broken and showed counter-currents; both bodies were badly broken. Coke was found on the timbers in this crosscut just out by car. A series of samples of dust were taken in the mine, and an analysis showed much alteration in all samples except Nos. 3 and 5.

The following show the analyses as made by the Provincial Mineralogist:—

	Moisture.	Volatile Matter.	Fixed Carbon.	Ash.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
No. 1	1.6	11.3	75.3	11.8
No. 2	1.1	13.6	62.8	22.5
No. 3	1.8	12.5	75.9	9.8
No. 4	0.8	16.4	66.8	16.0
No. 5	0.9	16.7	79.3	3.1
No. 6	1.2	14.4	70.7	13.7
No. 7	1.3	11.4	61.4	25.9

Sample No. 1.—Off timber just below crosscut, opposite last break-through on first incline.
Sample No. 2.—Off timber at edge of last crosscut on No. 1 incline.
Sample No. 3.—Off timber in crosscut between Nos. 1 and 2 rooms, No. 4 incline.
Sample No. 4.—Off upper bench of No. 6 incline, opposite No. 2 room.
Sample No. 5.—Off lower rib of Main level, last crosscut at barrier pillar.
Sample No. 6.—Off timber at last crosscut, No. 2 room, No. 6 incline.
Sample No. 7.—Off timber at last crosscut (through) between Nos. 5 and 6 inclines.

Proximate analyses of samples taken from the same places were made by the Crow's Nest Pass Coal Company, the results of which are also given, together with analyses of dust samples taken from safety-lamps recovered in the mine.

The Crow's Nest Pass Coal Co., Ltd. (May 2nd, 1917.)—Samples of Coal-dust taken from No. 3 Mine.

(Submitted by D. Michell.)

Analysis No.	Description.	Moisture.	Vol. Comb. Matter.	Fixed Carbon.	Ash.	Sulphur.	Remarks.
April 10		Per Cent.	Per Cent.	Per Cent.	Per Cent.		
02344	Sample No. 2. Coked dust taken about 300 feet from Main slope on South level at a point about opposite to where fire was burning in crosscut	0.65	17.38	69.81	12.16	....	....
02345	Sample No. 3. Dust from timber lying across roadway about 200 feet in from South slope	0.60	24.68	59.12	15.60	....	....
02347	Sample No. 5. Dust taken from end of sixth car on parting; this car was off track	1.11	20.82	69.17	8.90	....	....
02346	Sample No. 4. Dust taken from rib of coal at same point as No. 3	1.30	23.83	63.65	11.22	....	....
02348	Sample No. 6. Dust taken from prop standing on lower side of roadway on Main level between Nos. 3 and 4 inclines	0.90	20.31	69.62	9.17	....	....
April 9.							
02349	Sample No. 1. From timber just below crosscut opposite break-through on No. 1 incline	1.00	12.53	74.43	12.04	....	....
02350	Sample No. 2. Taken in No. 1 incline at edge of last crosscut (on timber)	0.68	15.62	60.85	22.85	....	....
02351	Sample No. 3. Taken from timber in crosscut between Nos. 1 and 2 rooms off No. 4 incline	1.06	13.78	75.42	9.74	....	....
April 11.							
02352	Sample No. 7. Taken from lower rib opposite left crosscut before barrier pillar on Main level	0.60	17.93	75.83	5.64	....	....

Dust Samples taken from Safety-lamps recovered after Explosion in No. 3 Mine.

(Submitted by D. Michell for Proximate Analysis.)

Analysis No.	Description.	Moisture.	Vol. Comb. Matter.	Fixed Carbon.	Ash.	Sulphur.	Remarks
		Per Cent.	Per Cent.	Per Cent.	Per Cent.		
02353...	Lamp No. 1345.....	0.74	20.36	59.79	19.11	....	....
02356...	" 1321.....	0.86	22.04	62.03	15.07	....	....
02357...	" ?	0.64	23.18	60.48	15.70	....	....
02358...	" 27.....	0.68	20.23	64.70	14.39	....	....
02359...	" 1302.....	21.86		59.36	18.78	....	....
02360...	" 1392.....	24.88		58.32	16.80	....	....
02361...	" 3440.....	24.92		61.22	13.86	....	....
02362...	" 1367.....	21.30		58.40	20.30	....	....

NOTE.—Samples taken from lamps Nos. 1318, 1343, and 1316 are too small for proximate analysis.

Sample of Coal-dust taken from Upper Bench opposite No. 2 Room, No. 6 Incline, No. 3 Mine.

Analysis No.	Description.	Moisture.	Vol. Comb. Matter.	Fixed Carbon.	Ash.	Sulphur.	Remarks.
		Per Cent.		Per Cent.	Per Cent.		
02363...	....	20.40		67.60	12.00	....	....

Average Analysis of Coal from No. 3 Mine.

Analysis No.	Description.	Moisture.	Vol. Comb. Matter.	Fixed Carbon.	Ash.	Sulphur.	Remarks.
		Per Cent.	Per Cent.	Per Cent.	Per Cent.		
....	....	0.50	21.50	69.00	9.00	....	....

Lamps were examined in the lamp-room in the presence of James Ashworth, George Wilkinson, Robert Strachan, T. H. Williams, George O'Brien, Charles Graham, Albert Fawcett, Robert Johnstone, and Thomas Graham.

The dust samples shown in the above analyses were taken from the lamps at this time.

Lamp No. 1343.—W. Silverwood, lamp found near foot of No. 5 incline. Gauzes and lower ventilating-ring clear and sound; bonnet broken by outside influence. Found under a cave.

Lamp No. 1392.—T. Checkley, lamp found under cave at foot of No. 5 incline. Ring and gauze in good shape; very little dust on lamp.

Lamp No. 27.—Thos. Puckey, fireboss, lamp found under cave at foot of No. 5 incline. Lower ventilating-ring, gauzes, and glass in good condition.

Lamp No. 1345.—Henry Falip, lamp found under cave at foot of No. 5 incline. Lower ventilating-ring, gauzes, and glass in good shape; shield injured by cave.

Lamp No. 1302.—William Bird, found under cave at foot of No. 5 incline. Lower ventilating-ring, gauzes, and glass in good shape; shield slightly dented.

Lamp No. 1310.—James Smith, found at face of No. 3 room off No. 6. Lower ventilating-ring, gauzes, and glass in good shape; inner gauze very clean.

Lamp No. 1316.—Frank Smith, same place as lamp No. 1310. Lower ventilating-ring, gauzes, and glass in good shape.

Lamp No. 1367.—John Monks, room No. 4 off No. 6 incline. Lamp found 50 feet from face; shield dented and coke on shield; lower ventilating-ring, gauzes, and glass clear and in good shape.

Lamp No. 1321.—F. Benezeth, miner, No. 2 room off No. 6 incline. Body and lamp found at foot of Main slope; lower ventilating-ring much blocked with dust; glass very dirty; inner gauze shows evidence of gas having burned in the lamp; outer gauze clear.

Lamp No. 1366.—Govi Giacomazzi, miner, No. 2 room off No. 6 incline. Body and lamp found at foot of slope; no glass in lamp; top off the lamp; only the outer gauze found; slight evidence of heating on this gauze.

Lamp No. 1388.—J. Atkinson. Body found in No. 5 room off No. 6 incline; only shield of lamp found.

Lamp with no working number, supposed to be the rope-rider's lamp, found at bottom of slope. One standard and lock-guard gone; lower ventilating-ring dirty. Maker's number of lamp, 578875.

Lamp No. 1318.—Frank Pullandre, lamp found at bottom of Main slope. Glass clean; gauzes in good shape; lower ventilating-ring dirty.

Lamp No. 618.—Found bottom of Main slope. Glass broken and one standard missing; gauzes all right.

Lamp No. 3440.—J. Machim, rope-rider. Supposed to be a spare lamp and was found at the top of the slope. Body of Machim found at the bottom of the slope; glass all right; outer gauze very muddy.

Lamp No. 1313.—Hugh Malarky, pumpman. Found lamp much broken; picked up in pieces.

Lamp No. 2556.—Found in pasture 1,000 feet from the mouth of slope; holes in gauzes, due to caulks on horse's shoes and done in mule pasture.

The operation of this field presents many difficulties; in its short history it has been the scene of many serious disasters, accompanied by a heavy toll of human life and much serious damage to property.

Many unjust criticisms have been hurled at the various managements and at the Government Inspection Service because of these serious accidents, with little knowledge on the part of the critics as to the serious problems that this field presents, problems that are peculiar to this field alone, and which, to be overcome, must be the subject of systematic research covering a period of years.

The great gas blow-outs of the Morrissey Colliery, 1904 to 1908, the earth-rocking "bumps" at the Coal Creek Colliery, 1908 to 1916, and the almost unbelievable quantities of gas given off daily through the ventilating-fans present difficulties that must be made the subject of systematic scientific research, if this, the most valuable coalfield in western America, is to be successfully operated.

The problems presented have exhausted the best efforts of those who have been in charge of the operations, and this fact prompted the recommendation of the writer, following the great "bumps" of November, 1916, for the appointment of some eminent engineer to make an impartial and independent report upon the field.

The Department was fortunate in obtaining the services of George S. Rice, Chief Engineer of the United States Bureau of Mines, for this work. Mr. Rice's very able report, which is in your hands, conveys to you some idea of the many problems that the future operations of the field contain, and makes recommendations that should have the most earnest consideration of the Government.

The economic value of the field is one of the great assets of our Province, and it is destined to play a very important part in future development of the great mineral wealth we all firmly believe our Province to contain; in short, the successful operation of this great coalfield is necessary to the successful development of our great mineral wealth, and justifies any expenditure that may be made with a view to making possible the recovery of the great coal-deposits with a minimum of risk to the lives of those employed.

The facilities for carrying out research-work with our coals, afforded Mr. Rice through his connection with the United States Bureau of Mines, at their well-equipped laboratories at Pittsburgh, Pa., enabled him to obtain valuable information on the gas contents of the Crowsnest Pass coals which otherwise might have remained unknown for some time. I here refer to the experiments carried out by A. C. Fieldner, Chemist to the Bureau of Mines, and described in the report of Mr. Rice (*see* pages 15 to 18). In these experiments the coal was ground in an evacuated, revolving steel tube-mill for a period of two hours, and after which 90 per cent. of the coal passed through a 200-mesh screen; the mill was then connected to a Mercury pump

and evacuated, the gas collected, measured, and analysed. The results were most astonishing, and showed that 100 grammes of Crowsnest coal gave off 163.6 cubic centimetres of methane plus ethane, whilst 100 grammes of Pittsburgh coal gave off 9.1 cubic centimetres of methane plus ethane. Of the 163.6 cubic centimetres of gas given off by the Crowsnest Pass coal, 126 c.c. was ethane, whilst the ethane content of the 9.1 c.c. of gas contained in the Pittsburgh coal was 2.5 c.c. Former analyses of gas samples collected in the field had failed to show any ethane content, notwithstanding that duplicate samples had been collected by the British Columbia Inspection Service, one sample being sent to the Mines Department at Ottawa and the other sample to the United States Bureau of Mines at Pittsburgh, Pa., with the request that special attention be given to the possibility of ethane being contained in the gas. It would therefore appear that the breaking-down of the molecular structure of the coal has much to do with the gas emanations.

The friability of Crowsnest coals is conducive to easy crushing, and the grinding induced by the heavy overlying strata on the supporting pillars, as well as that produced in mining haulage, movement of animals and men, must be releasing daily a large volume of the lighter gases into the mine atmosphere.

When we consider that the inflammability of ethane is so much lower than that of methane, we have an additional danger present in this already dangerous field; the range of inflammability of ethane being from 2.5 to 5, whilst that of methane is 5.5 to 14.5.

These facts make highly necessary the appointment of a commission on research, along lines laid down in the report of Mr. Rice, and should take up the study of the geology of the field in relation to earth-movements. The chemistry of the coal and gas contents should be the subject of the most careful investigation and research, and last, but not least, a systematic and careful study of modes of operation in the field, with a view to obtaining the maximum tonnage yield with the minimum risk to those engaged in the production of the coal. The latter problem is one that must necessarily mean much experimenting, and will consequently cover a period of many years; but it is highly essential to the future of the field, and much care should be exercised in the choice of the mining engineer and operating man recommended as part of the commission.

I have been more or less associated with the field since 1902, and during that period I have always felt and advocated that the only successful mode of operating the seam known as No. 2, and which is identical with the seam worked in No. 3, where the recent explosion occurred, is by the long-wall method; the height of coal, 5 to 5.5 feet, is well adapted to this system. Further, I believe that the long-wall operation of this seam, if carefully carried out from the outcrop, would, as evidenced by the operations conducted in this seam at No. 9 mine on the north side of the valley at Coal creek, tend to break the overlying stratas in a series of slices to the surface, and such breaks would act as outlets for the great volumes of gas contained in the various seams overlying the No. 2 seam.

It will be contended that the operation of the No. 2 seam, which lies below several other seams in the field, would destroy these overlying seams and render their future recovery impossible.

I am of the opinion that the extraction of the No. 2 seam, which lies 150 feet below the seam known as No. 1, or that being operated in the No. 1 East mine at Coal creek, would, if properly conducted and properly extracted, in no way seriously injure the No. 1 seam, or in any way add to the difficulties or cost of operation. I base this opinion on the conditions found in No. 1 East mine, operating in the Upper seam, when working over what is known as the proscribed area in the Lower or No. 2 seam. Here, it is true, there was evidence of a crushed zone near that portion of the field affected in this restricted area, but the method of extraction of the Lower or No. 2 seam, directly under this section, was so irregular in its mode that it was highly conducive to bringing on a squeeze or creep, and again there is the possibility referred to in my report on the "bumps" of November, 1916, of a naturally weak or shear zone in the mountain at this point.

All things considered, I am fully convinced that a well-conducted long-wall system in the No. 2 seam would be the means of obtaining a greater extraction of coal from a given area, a more uniform subsidence with a greater area of support for the overburden, break the overburden so that a reoccurrence of the great "bumps" would be minimized, and through such breaks relieve and drain the overlying seams of their great volumes of gas, rendering their future operation more secure and the general ventilation of the field much easier.

Further, the expanse of face in a long-wall operation would tend to reduce the possibility of heavy outbursts of gas now encountered in the leading places in the present pillar-and-stall mode.

I am further of the opinion that, in view of recent occurrences, gas contained in this field is such in quantity and in pressure, at depths from the face, that it will be found impossible to drive and maintain two or more openings like the present levels into the main body of the field without encountering such outbursts of gas, accompanied by either upheaval of floor or outbursts of fine coal and gas, as to render the operation of the field in this manner impossible.

Much credit should be given W. R. Wilson for his desire to adopt any or all means at his disposal to render the operations safe, and the recent announcements that electric safety-lamps would be used is in keeping with his advanced ideas for the future operations. These lamps should be some assistance in safeguarding the operations, inasmuch as the surges of gas given off at the faces often enveloped the miner in an explosive mixture before he was aware of the presence of the gas, or before he could retreat if aware of the quantity present, and all that stood between the men and a disastrous explosion was the efficiency of flame safety-lamp, a slight defect, an overheating, or an accident to the lamp meant disaster. The introduction of the electric lamp will reduce the number of the flame-lamps in the mine by at least 90 per cent., and will render the chance of ignition from this source in proportion to the number of flame-lamps in use.

Much is being made of the question of a single shift; in the light of the recent mine-air samples, taken after a period of idleness reaching thirty or more days, it seems doubtful if this would be of much benefit.

As already stated, it was deemed at one time that the gas-outflow was in proportion to the amount of coal broken down; it now appears that it is more in proportion to the area of face and ribs exposed. If the latter contention is correct, then the single-shift theory could in no way be a remedy, inasmuch that to obtain a given output of coal per day by a single-shift method would require twice the exposed area necessary for a similar production by the double shift, and consequently a much-enhanced or increased outflow of gas.

In conclusion, I cannot too urgently impress upon you the need for early consideration of the problems in this field.

The management and your inspection force have long carried a serious responsibility, a greater responsibility in the light of recent discoveries than even they realized; and in view of the now general knowledge that the field presents difficulties in greater proportion than any other known coalfield, it is only fair to them that they should be supported and assisted in their work by a commission composed of the ablest men procurable.

I have to thank, for many courtesies shown me, George Wilkinson, Chief Inspector of Mines; Dudley Michell, First-aid Instructor; W. R. Wilson, general manager of the Crow's Nest Pass Coal Company, and his able engineering staff.

SPECIAL REPORT ON EXPLOSION AT No. 3 MINE, COAL CREEK.

By JAMES ASHWORTH.

On April 8th, in accordance with your telephoned and wired instructions of April 7th, which were as follows: "Confirming my phone message last night, please proceed Fernie and act under instructions which will be sent forward to you there by wire," I left Vancouver at midnight and proceeded direct to Fernie. En route I met your newly appointed Chief Inspector of Mines, George Wilkinson, with whom I was previously acquainted, and we travelled together to Fernie.

On arrival at Fernie we met the funerals of four of the miners, which through some mistake had not been held over until we had had an opportunity to view the bodies. In the afternoon I received your wire and later your confirmatory letter of April 10th, viz.: "I beg to confirm my telegram of yesterday's date, as follows: 'Pursuant to section 73, "Coal-mines Regulation Act," I have appointed you to make a special investigation and report on explosion at No. 3 mine, Coal Creek, on night of 5th instant."

On the afternoon of April 9th I called on W. R. Wilson, the general manager of the Crow's Nest Pass Coal Company, Limited, and communicated your instructions, and also introduced George Wilkinson as your newly appointed Chief Inspector of Mines. In the afternoon we paid a visit to the mine at Coal Creek, and later met Thomas Graham, retiring Chief Inspector of Mines, and the District Inspectors, T. H. Williams (Fernie), George O'Brien (Michel), Robert Strachan (Merrit), and Dudley Michell, of Victoria, First-aid and Mine-rescue Instructor.

Subsequently we met W. Shaw, one of the Albertan Inspectors of Mines, who paid several visits to No. 3 mine.

The No. 3 mine at Coal Creek (*see* Plan 1) is one section of a seam of coal of from 5 to 6 feet thick, which has been operated from the earliest days of the camp. The original entry was, and is still, called No. 2, and was at first ventilated by the fan which now ventilates No. 3 section of the mine; No. 2 section is now ventilated by a separate fan erected in 1911. A third section of this seam of coal, called No. 9, has its entry on the north side of the valley, and is not connected with Nos. 2 and 3 mine-workings underground. Shortly stated, No. 2 mine is working the coal above water adit level, and No. 3 mine the area below.

No. 2 mine is the one in which the disastrous explosion occurred in 1902 and caused the loss of about 130 lives. The place of origin of the 1902 explosion is shown on the accompanying plan—viz., Macdonald's level. Since the 1902 explosion trouble has been experienced from what are known as "bumps" in the central area of the No. 2 mine, which caused several fatal accidents from great upheavals of the floor, falls of roof, and considerable emissions of gas, probably mostly methane. In 1908 a much heavier "bump" than usual occurred, and imprisoned twenty-four men, four of whom lost their lives. After this the major portion of these workings was isolated by a commission sent by the Minister of Mines, and a red line was drawn on the plan, under agreement with the general manager of the Coal Company, that no coal should be wrought within that area, presumably on the conclusion that the pillars in the area wrought under the pillar-and-stall system were too small. Small areas of coal from time to time were worked on a long-wall system, but this system does not seem to have been persisted in sufficiently to demonstrate its effect on this portion of the mine, and it has since remained closed. In parts of Nos. 2, 3, and 9 mines, however, the long-wall system was developed and persistently carried out for some years, but has once more apparently been abandoned.

The Coal Creek mines are superintended by Bernard Caufield, with Overman John Biggs in charge of the No. 3 portion, and William Lancaster, overman over the No. 2 section. W. R. Puckey was the fireboss on duty at the time of the explosion, with J. Thompson on the previous shift and J. McCourt on the night shift. On April 4th J. McCourt reported at 7 a.m.: "I have examined this mine and found it free from explosive gas and in safe condition." On the following shift J. Thompson reported at 3 p.m.: "I have examined this mine and found a small cap of gas in return air from face of Main level round to counter-level; all other places clear and in safe condition." On the 11 p.m. shift W. R. Puckey reported: "I have examined this mine and found a little gas in crosscut off counter-level; all other places clear and in safe condition." On the 7 a.m. shift of April 5th J. Thompson reported: "I have examined this mine and found a small cap of gas in return air from face of crosscut to face of counter-level; all other places clear and in safe condition." This report is countersigned by W. R. Puckey, and therefore shows that he was fully aware of the conditions of the mine.

During the morning shift the District Inspector of Mines, T. H. Williams, made his monthly inspection, and reported as follows:—

"Ventilation: Good. Explosive gas: None. There is ½-inch cap in the Main level, counter-level, and crosscut off it.

"Roadways: Good. Timbering: Good.

"Remarks: I measured 29,250 cubic feet of air a minute for the use of forty-three men and seven horses."

The overman of No. 3 mine, J. Biggs, in his report dated April 5th, says: "I have examined No. 3 mine and found same free from explosive gas and in safe condition. The Inspector made his usual examination of the mine to-day and found the above-mentioned conditions. Afternoon- and night-shift bosses report a little gas in crosscut off counter-level; day-shift fireboss reports all clear. Total men in the mine, 94."

The last examination made by the No. 3 Mine Gas Committee was on March 17th, as follows: "We, the undersigned, have this day examined the whole of No. 3 mine, and find gas in crosscut off counter; all other places clear. Timber, roof, and sides good.—(Signed.) Wm. Bird and Jo. Charnock."

On February 8th, 1917, George O'Brien, the Michel District Mines Inspector, took Mr. Williams's duty, and reported on No. 3 mine, Coal Creek, as follows:—

"Ventilation: Poor at the face of the South level, but generally good throughout the rest of the mine.

"Explosive gas: Face of South level, crosscut off South level, and counter to South level. These three places were fenced off and the men withdrawn.

"Roadways: Good, but the South level haulage-road was dusty in places.

"Remarks: I measured 35,000 cubic feet of air a minute on the main intake for the use of forty-three men and eight horses. This quantity is divided into two splits: South level split, 25,500 cubic feet a minute for forty men and eight horses, and for the Slope split I measured 6,000 cubic feet a minute for three men and one horse."

The above quotations from the reports give a good general idea of the ventilation and fire-damp conditions of No. 3 mine at the time of the explosion, and it now remains to ascertain what other conditions may have influenced the explosion.

Immediately before the explosion a trip of empty cars had been lowered down the Main slope, and the hoistman had slackened off the rope to enable the rope-rider to uncouple. The air-locomotive on the main South level, with its trip of empty cars, was on its way inby and probably in motion, and, at a point about 150 feet inside the third charging-station, the air in this level would therefore be in its most dusty condition. It was not customary for the conductor of the trip to go in with the last trip, neither was it unusual for many of the men, when returning from work, to ride out on this last trip. This may have accounted for some of the men being out of their working-places before quitting-time.

The air in the Main level was reported by the District Inspector to be at least 90 per cent. saturated with moisture, and the Main slope wet practically throughout its whole length. The inside length of the level was at times dampened with water which collected in the Main counter-level. The water in the travelling-road down the slope was frozen. No stone dusting was practised.

At the moment of the explosion the miners were preparing to leave their working-places; some were dressing, many had already left their work, and some were nearly out of the mine.

At about 10.20 p.m. the men on the surface were startled by a noise. In the power-house the self-recording dial on the air-compressor showed that the air-line was broken, and one of the engineers on duty saw what appeared to be smoke come out of one of the entries at the other end of the tipple. The hoistman saw the smoke and dust right in front of him, and the weighman on the tipple said that he heard a noise like a trip running away on No. 1 East, saw a big cloud, then a flame and a streak of white vapour. Smoke was very thick on the tipple. He then sent for Mr. Caufield, the superintendent, who was on the spot in about five minutes. Mr. Caufield first gave his attention to the fan which was undamaged, but part of the covering of the shaft was blown off. He then went to the main separation doors between Nos. 2 and 3 mines, found two of them closed and the other partly open. He and a party then went down the slope, and found Malarky's body about 50 feet down. Farther down through the separation doors the

return was blown away; inwards farther down the slope in a crosscut to the left there was a post on fire, and farther inside the crosscut two other posts and boards on fire. The District Inspector, Mr. Williams, and the overman of the mine, Mr. Biggs, then joined the party and went down the travelling-road. The separation doors near the bottom of the slope were found blown out into the return and were replaced by temporary stoppings set up. Farther down the slope one man, Benezeth, was found alive, and two dead men, Gormley (motor conductor) and Machin (the slope rope-rider).

The empty cars in the siding were blown around, and the main air and water pipes were both blown down. Farther along the South level a large fire was discovered in a crosscut where a board stopping was blown inwards towards the return airway. This fire was really three fires and the most dangerous one had to be dug out. Later it was discovered that there was still another fire in the return airway, about 150 feet inside. The first big fall of roof was then found in the Main level, about 1,000 feet inby of the slope. From this point the dangers from fallen roof and gas met with by the exploration party became increasingly difficult, and the advance was systematized by dividing the men into parties of thirty, with five mine officials, and working in six-hour shifts. In this way the exploratory work proceeded from day to day until April 18th, when it was found impossible to get any farther than No. 2 room off the Main level, where both the level and counter-level were completely closed. The Miners' Union was then asked to send representatives to view the situation and consult with the general manager, officials, and Inspectors as to what should be done. At this meeting the decision was unanimous that nothing further could be done at the far end, and that systematic cleaning-up of the mine must be resorted to from the first fall on the level. Two other deputations from the miners were taken in to view the situation before they finally admitted that further exploration for the twelve bodies still unrecovered was impossible. The cleaning-up of the continuous and heavy falls will take a long time, and, therefore, as sufficient evidence appeared to be available to enable the Coroner's jury to arrive at a verdict, the Coroner, Mr. Murray, of Michel, agreed to resume his inquiry on April 19th in the Fernie Court-house at 2.30 in the afternoon. This and the subsequent sittings were not attended by Thomas Graham, the retired Chief Inspector of Mines.

During the day-to-day explorations of No. 3 mine from April 5th to 19th the following bodies and materials were discovered, viz.:—

1. *P. Gormley.*—Very badly burned down to his groin and with many bone fractures; was found wtih his lamp on the Main slope. He was the conductor of South level dinkey.

2. *Fermin Benezeth.*—Lived for three hours; fractured skull, but no evidence of fire on his body. His working-place was room No. 2 off No. 6 incline. His lamp (No. 1321) was a little damaged; the gauzes were very clean and gas had been burning inside.

3. *Hugh Melarky.*—Pumpman. Found near the top of the Main slope; killed by mechanical force and reported unburned, whose lamp (No. 1313) was found smashed outside the entry, and whose second lamp was said to have been found in the horse pasture many hundred feet from the entry.

4. *J. H. Machin.*—Hair burned, neck broken, and other fractures; was found in the siding at the foot of the slope with his arm round a prop. Rope-rider.

G. Giacomazzi.—The partner of Benezeth. His body was not found in the slope, but his lamp (No. 1366) and also his pick were found, the former being smashed up, without inner gauze, and the outer gauze showing signs of having been very hot.

F. Puillandre.—This man's lamp (No. 1318) was also found in the Main slope; the lamp was undamaged, the glass clean inside. His body was not found. He worked at the face of the Main level, and if his body is not subsequently found there, it is probable he had quitted his working-place about three-quarters of an hour before the regular quitting-time.

5. *Albert Barton.*—The driver of the South level air-dinkey; was found on his engine with a heavy timber across his chest. Burns on head and chest; neck broken. Safety-lamp not recovered. Quantity of coal-dust, but no signs of burns in mouth.

6. *William Puckey.*—Fireboss. Found in parting at foot of No. 6 incline. Hair of head and face singed; burned also on the shoulders and chest. Apparently had been seated on the first of a loaded trip of cars, and had partly leaned over with one leg on car, the other on the ground, and head over the shaft of the horse. Coked dust was jammed into the bonnet of his safety-lamp.

7. *Thomas Checkley.*—Head, face, neck, upper chest, and hands burned; burns on *both legs* and several fractures. His working-place was in No. 1 room off the Main level, and he was found with Puckey and three others, with his lamp intact.

8. *Henri Falip.*—Head, hair, face, and neck much burned; chest and abdomen burned; burn on *right leg* and fractures. Lamp No. 1345; inner gauze had been heated. His working-place was No. 6 incline.

9. *William Bird.*—His working-place was also No. 6 incline, and his burns and wounds were similar to those of H. Falip. His lamp (No. 1302) had the shield bruised, also the gauzes, but these were very clean, excepting the ring-gauze below the glass.

10. *William Silverwood.*—Face, head, chest, and abdomen burned; arms and hands and various fractures; burns on *both legs.* Found with the Puckey group and worked in the cut through from No. 1 to No. 2 room off the Main level with T. Checkley. His lamp was No. 1343 and was only slightly damaged.

11. *Jules Falip.*—Was burned on head, face, hair, chest, and arms, and back of thigh; left humerus broken. He was found in his working-place in No. 1 room off No. 6 incline and his safety-lamp was not recovered.

12. *B. Giacomazzi.*—The partner of Jules Falip; was also found in his working-place. He was badly burned down to his left buttock, and fracture of the frontal bone. His safety-lamp was not recovered.

13. *Frank Smith.*—Hair, head, chest, arms, and back burned. Found in his working-place, No. 3 room off No. 6 incline. His lamp (No. 1316) was undamaged with coked dust in shield.

14. *James Smith.*—Was similarly burned to Frank Smith and in the same room. Both had been at work up to the last. Lamp No. 1310; coked dust in shield.

15. *Joseph Atkinson.*—Hair burned off and burned down to the *knees.* Lamp not recovered. His working-place was No. 5 room off No. 6 incline, and his safety-lamp was not recovered.

16. *Giavona Bosetti.*—Working in No. 5 incline. Whole body burned, many fractures, and neck broken. Safety-lamp not recovered.

17. *Joseph Campbell.*—Working in the crosscut between the inclines Nos. 5 and 6. Badly burned on head, face, neck, arms, and back, and both *legs burned.* Safety-lamp not recovered.

18. *Henry Haydock.*—Working in No. 5 room off No. 6 incline. Head, face, neck, arms, and back badly burned. Both the men in this place had been at work up to the time of the disaster. Safety-lamp not recovered.

19. *W. G. Clarke.*—Both legs broken, *legs badly burned,* also arms and head; neck broken; skull fractured, brains scattered. Working at the face of No. 5 incline with J. Bossetti. Safety-lamp not recovered.

20. *Edward Coates.*—Whole body burned; fracture of left shoulder; jaws crushed. Working in the crosscut between inclines with his partner, Campbell. Safety-lamp not recovered.

21. *John Monks.*—Burns on the back, chest, arms, and face, and some cuts. Found in No. 4 room off No. 6 incline. Lamp No. 1367; dent and coke in shield; both gauzes clean.

22. *J. Stelliga.*—Working with Monks. Burns on the breast, face, *right leg,* and arms. No safety-lamp recovered.

This list shows that a recovery of twenty-two out of thirty-four bodies has been made from the mine, and that most, if not all, of the balance will be found inside No. 6 incline under heavy falls. It is most noticeable that only one horse-body out of the seven at work in the mine was found. Not one body recovered from the mine showed any signs of carbon-monoxide poisoning, which fact is certain proof that all the deaths were of an instantaneous character.

The foregoing careful notes on the bodies and safety-lamps recovered from the mine have been made with the object of discovering some indications which would assist in arriving at a conclusive and convincing decision as to what was the originating cause of the disaster. These are supplemented by other evidence. Thus, firstly, that some of the miners had left their working-places before quitting-time; for instance, Benezeth and G. Giacomazzi, who worked in No. 2 room off No. 6 incline, appear to have come out about three-quarters of an hour before quitting-time. Benezeth's body and safety-lamp were found in the Main slope, and Giacomazzi's safety-lamp and pick were also found there, but not his body. Special search has been made for this body, without success, and yet it does not seem credible that he could have escaped alive from the mine. The cleanness and colouring of the gauzes, however, lend some supposition to

the theory that the presence of gas in their working-place had caused them to leave the mine earlier than usual. Secondly, the safety-lamp of F. Puillandre was also found in the Main slope, but no body. This man worked at the face of the South level, where the reports show that there was gas in the ventilating-current before the shift commenced work, and his lamp (No. 1318) was found with the glass clean inside, undamaged, and with very clean gauzes. So far nothing has been found to throw any light on the mystery of the two missing bodies. Thirdly, two other miners inside of No. 6 incline had come out of their working-places — viz., Silverwood and Checkley—who were found in the Main level along with the fireboss, Puckey. The lamp-gauzes did not apparently show any excessive signs of heat. Fourthly, the direction of force shown in the mine was undoubtedly from an originating point somewhere inside of No. 6 incline. Fifthly, at the foot of No. 1 room off the South level some of the exploring party found evidence of the ffoor of the level having been lifted, and this, coupled with the fact that the roof near this point and also inby was fallen to such an extent as to completely close both the Main level and the counter, again leads to the conclusion that there had been a "bump" which caused Silverwood and Checkley to quit work. Evidence was given at the inquest that Silverwood and Checkley's working-place was making gas very freely. Sixthly, it was shown by the evidence that the greatest volume of gas was given off from the floor, and in some instances so freely that care had to be taken, when hanging the check or talley inside the car, that gas did not extinguish the lamp (Lynn). This gassy condition extended to the top of the brushing (*see* section, Plan No. 3).

THE MINE INSIDE OF NO. 6 INCLINE.

From the evidence given at the Coroner's inquest, and other facts already referred to, the reporter has come to the conclusion that the area of No. 3 mine which contains the point of origin of the disaster is inby of No. 6 incline, and at his request the general manager of the Crow's Nest Pass Coal Company, Limited, has had the Plan No. 3 prepared on a larger scale to show more distinctly the conditions as to ventilation.

This plan shows that this part of the mine is a disturbed area, and that the coal-seam does not lie so conformably as in the more outby area. First, there is a downthrow fault of 36 inches, then an area of softer coal, and close to the face another faulting which is an upthrow of 30 inches. The two faults appear to converge in the direction of Nos. 7 and 4 inclines, where in the latter the brushing coal was found to be 8 feet thick.

On the morning shift of April 5th all the rooms were at work, and one of the miners at the face of the Main level, named Lane, who had been a fireboss, said he found a ½-inch cap, and thought it safe to work. He also added that this cap increased towards the end of the shift to ¾ inch, and that he did not report this increase to the fireboss. He thought that ¾ inch represented 3 per cent. of methane or fire-damp. He was at work when Mr. Williams, the Inspector of Mines, passed through the mine in the morning, and also when another Inspector of Mines, G. O'Brien, withdrew all the men out of the counter, the crosscut, and the level on February 8th, 1917, when the cap was about the same size. Mr. O'Brien evidently thought that, as the whole volume of air was charged to this extent with gas, it came within the range of the heading of "Explosive Gas," which is one of the heads under which he has to make a specific report in accordance with section 77 of the "Coal-mines Regulation Act." This report was posted up outside No. 3 mine and was for the information of all employees.

There is no record of any investigation having been made to ascertain from what particular source this extra volume of gas originated, but it is probable that it was within the disturbed area shown on Plan 2.

EXPLOSIVE GAS.

This term as used is a most misleading one, and requires the most serious consideration. It is not found in the "Coal-mines Regulation Act," and there is no history to show how it originated. The Act of Parliament uses the term "inflammable gas," but there is no official definition of that term either. The practical inference has been that where there is no kind of explosive being used a man is safe to continue at work until gas actually explodes in his lamp. Your reporter has on previous inquiries into colliery disasters attempted to ascertain the size of cap which officials and workmen have described as a "small cap," but without any satisfactory result, and therefore he is now of opinion that the time has arrived when this question should

be settled. He is satisfied that either a further explanation of the words "explosive gas" should be enacted, or deleted altogether. A fire-damp or inflammable-gas cap should be stated in parts of an inch, in preference to percentages. One instance of this argument in practical application may be quoted from the No. 3 mine; thus, on the 9th day of March, 1917, Mr. Williams, the Inspector of Mines, in his official report says: "Explosive gas: None"; but under "General remarks" he reports a small cap of gas in the Main level and counter. Two of the firebosses report: "A small cap of gas in return air from face of Main level round to counter-level; all other places clear and in *safe* condition." The other fireboss reports: "I have examined this mine and found it free from *explosive gas* and in safe condition. A small cap of gas in return air from Main level round to counter-level."

This appears to have been the chronic condition of this part of the mine, and the reports are initialled by the overman. The overman, in his report to the manager, says: "I have examined No. 3 mine and found same free from explosive gas and in safe condition. The Inspector made his usual examination and found the above-mentioned conditions. Firebosses report No. 3 mine as stated above."

These quotations show clearly that "explosive gas" is the term to avoid, and that a "small cap of gas" is only worth passing notice.

None of these reports state the origin of the gas which thus charged the whole volume of air at the points named, but the gas must have been in the air before reaching the face of the Main level. Was it from a "blower" within the faulted area?

In a mine like No. 3, which creates a fine and easily ignitable dust from the working of the coal, it may now be asked: What is an *explosive* mixture of air, fire-damp, and coal-dust?

It was stated during the inquest that 1 ton of this coal gave off 3,669 cubic feet of occluded gas; it was also stated that experiments had been made to show what volume of gas was given off whilst the mine was at work and also when not at work. These experiments showed that the return air contained 1.77 per cent. of methane when at work and 1.38 per cent. when not at work, which does not seem to be a very material difference.

With the foregoing facts in mind, it is clear that more safety provision is absolutely necessary, and your reporter would most strongly suggest that the words "explosive gas" and "small caps" be entirely eliminated, and that all reports as to inflammable gases be made in parts of an inch, with a height of cap fixed at which the miners must be withdrawn from the mine, and the special examinations made in accordance with the present "Coal-mines Regulation Act, 1911." For many years an illustrated card issued by the British Home Office Mines Department has been in the hands of the inspectorate of British Columbia and distributed freely "with the compliments of the Minister of Mines," but apparently without any practical result. These cards show the heights of cap produced by 1½, 2, 2½, and 3 per cent. of fire-damp (Figs. 1 to 4), and the accompanying text explains that when a complete cap of 2 per cent., however faint, is discovered on the lowered flame, men should withdraw at once from the working-place and inform the fireman or other official responsible for the ventilation. The card in question is based on tests made with oil as fuel, and therefore it may require some correction for British Columbia mines, which use the benzene or gasolene in safety-lamps in the majority of cases.

Whilst on the subject of safety-lamps, attention may be called to the fact that most of the gas-testing apparatus used throughout the Province is very inefficient, and therefore almost useless as a safeguard against the accidental issuance of a faulty safety-lamp.

Stoppings and Doors.

The fact was elicited during the inquiry that with a volume of air of over 53,000 cubic feet at the fan-shaft, only 13,000 was found at the far end of the levels, thus showing a leakage of 40,000 cubic feet. This calls for serious attention to the class of air stopping generally used, which is usually made of boards, but sometimes it is of rock and dirt. It seems highly desirable that the stoppings on main roads should be of a more permanent character, so as to prevent an excessive leakage of air.

As regards doors, one door and a canvas sheet will satisfy the provisions of the 1911 Act of Parliament, but the inefficiency of this arrangement was demonstrated at the Reserve Mine explosion, and your reporter strongly suggests that at least two doors should be made compulsory, and not left to the opinion of the Chief Inspector of Mines.

THE QUANTITY OF AIR PER MAN.

Your reporter would suggest a revision of this rule of the present Act of Parliament, as it is obvious that the conditions in a mine which is only just commencing to work a coal-seam are entirely different to those of a mine which is a mile or more from the entry, as in the case of No. 3 mine at Coal Creek.

NUMBER OF MEN IN EACH SPLIT OF AIR.

In view of the gaseous character of the coal-seams of the Crowsnest Pass coalfield, your reporter would suggest that thirty-five men be the limit in each split of air, instead of seventy as in the present Act of Parliament.

THE LOCALIZATION OF AN EXPLOSION.

For a great many years the opinion was almost universal that the watering of the roadways of a mine or wet zones was capable of controlling the extension of an explosion, but this contention has now been practically abandoned, and has given place to stone-dusting. It has not yet been proved that in a case like No. 3 mine at Coal Creek it would have effected any saving of life. There is not a doubt in your reporter's mind that the principal factor in the explosion in No. 3 mine was fire-damp, which, after its own ignition and that of the floating coal-dust, swept through the working-places where neither water nor stone-dust could be practically applied. If stone-dust had been applied on the main South level, there would, however, have been a probability that less damage would have been done to the mine roadways and the men in the slope might have escaped alive. Under similar conditions I should strongly advise that stone-dusting should be adopted on the main haulage-ways where they are not naturally wet as in No. 3 slope.

THE METHODS OF EXTRACTING COAL.

Your reporter would also suggest to you that the mode of extracting or working a coal-seam should be taken into consideration as having a very great influence on the safety of the mine and of the persons employed. Thus, in the past history of the No. 3 mine, all the disasters have occurred whilst the pillar-and-stall system was in vogue, but neither serious "bumps" nor outbursts of gas have occurred whilst the long-wall system of work was practised. This immunity from disaster is doubtless mainly due to three factors: Firstly, that long-wall faces are much more easily ventilated and require less brattice-cloth than the pillar-and-stall method; secondly, there is a less area of the mine open for an equal output; and, thirdly, that gases in the floor and roof are given off with more regularity and much less liability to "bumps."

THE CORONER'S INQUEST.

Some little friction arose in the early stages, but this was settled by the appointment of C. C. Murray, the Coroner of the Michel District, and a fresh jury, who viewed an exhumed body and immediately proceeded to take evidence on April 19th, and continued doing so until the 24th of that month, when the jury announced that they had heard sufficient evidence to come to a decision. They later brought in their verdict, viz.: "That John Monks, *et al.* came to their death at Coal Creek on April 5th, and hereby find that those men met their death by an explosion the first cause of which is unknown to us by the evidence adduced. We, however, would recommend from the evidence received that the single shift would, if practicable, be a great factor in preventing an explosion such as this."

By the courtesy of the Coroner your special investigator was permitted to question the witnesses, and obtain much of the information which is embodied in this his report.

The Coroner further invited all and sundry to bring out any facts which affected the deaths of the thirty-four men killed.

The Crow's Nest Pass Coal Company, Limited, was represented by the general manager, W. R. Wilson; their solicitor, Sherwood Herchmer; and many of the officials. Your inspectorate staff was represented by George Wilkinson, Chief, and W. R. Williams, George O'Brien, and Robert Strachan, District Inspectors. The Miners' Union was represented by T. France, secretary, Mr. Biggs, and Mr. O'Neil, solicitor.

The inquest was resumed on the above date as a consequence of the representations made to the Coroner by myself and your Chief Inspector of Mines that it was impossible to recover

any more bodies for a considerable time; that there was, we thought, sufficient evidence available to enable the jury to come to a conclusion; and later, as a matter of fact, they announced that they were prepared to consider their verdict, whilst Mr. Caufield, the superintendent, was still on the witness stand.

Conclusion.

The evidence produced to the jury was brought up as closely as possible to the seat of the origin of the explosion (*see* Plan No. 3), where both the Main level and counter were completely blocked up by fallen roof. The indications were, however, so unmistakable as to the direction of force that every one was convinced that the point of origin was inby of No. 6 incline.

The very dangerous condition which was proved to have existed, particularly at the face of the Main level, the counter, and especially in the crosscut where the coal was soft and producing gas freely, point to this part of the mine as the point of origin.

Now as to the cause: Your special investigator has come to the conclusion, from his personal experimental work on safety-lamps when exposed to mixtures of fire-damp and coal-dust in low velocities of a ventilation-current, that this disastrous explosion was originated by an overheated safety-lamp igniting and exploding the surrounding fire-damp and fine coal-dust. When considering the safety of a safety-lamp, it must not be lost sight of that coal-dust is so finely divided that it will pass through the meshes of a safety-lamp gauze, and also that every such particle of dust contains its own volume of explosive gas. Such dust is therefore as dangerous as fire-damp under conditions similar to those which were probably present when ignition took place. The other possibility is that a loaded car may have been off the track, and that a safety-lamp was broken whilst replacing it; but this is not such a likely occurrence as the former suggestion.

Finally, the most important lesson taught by this explosion is that a maximum height of fire-damp cap must be fixed to compel the miners to withdraw, or be withdrawn, from the mine or part of the mine, and a permissible height of cap must also be fixed for those places where permissible explosives are in use.

In the course of the inquiry it transpired that many of the "certificated" miners never tested for gas when entering their working-places, and never during the shift, and therefore it seems desirable that the firebosses during their rounds of inspection should compel the miners to make tests for fire-damp whilst they are present. Some miner's eyes are diseased and incapable of seeing a dangerous cap on the flame of a safety-lamp.

EXPLOSION AT No. 6 MINE, CUMBERLAND.

REPORT BY GEO. WILKINSON, CHIEF INSPECTOR OF MINES.

I have the honour to submit the following report on the explosion which occurred on June 3rd, 1917, in the No. 6 mine, Comox Colliery, operated by the Canadian Collieries (Dunsmuir), Limited, resulting in the loss of four lives:—

Upon receipt of a telephone message from Mr. Fagan, chief accountant of the Canadian Collieries (Dunsmuir), Limited, about 2 p.m., Sunday afternoon, June 3rd, 1917, to the effect that there had been an explosion in No. 6 mine at Cumberland and that several men were known to be killed, I immediately prepared to leave for Cumberland by automobile, arriving there about 10.30 p.m.

Upon arrival there I was informed that the explosion had been local and only a very small amount of damage had been done, although it had resulted in an unfortunate loss of four lives. All the bodies had been taken out when I arrived there and all other work suspended until morning.

On Monday morning I visited the scene of the accident, accompanied by Henry Devlin, Inspector of Mines for Cumberland District; Dudley Michell, Instructor in First-aid and Mine-rescue Work for the British Columbia Government; Thomas Graham, general superintendent, Canadian Collieries (Dunsmuir), Limited; W. R. Freeman, superintendent of the Comox Colliery; Hugh Sloan, mine manager, No. 6 mine; Thos. Mordy, overman, No. 6 mine; and B. F. Andrews, resident engineer, Canadian Collieries (Dunsmuir), Limited.

SHORT DESCRIPTION OF No. 6 MINE.

No. 6 mine is opened by a shaft 265 feet deep; the workings of this mine consist of pillar-and-stall and long-wall work. Mining in the long-wall section is done by a Sullivan electric coal-cutter, type C.E. 7, alternating current. The average thickness of the coal-seam is about 4 feet, but the coal contains several bands of rock and is of a hard nature, with sandstone roof and floor. Sufficient height is obtained by brushing 3 feet of bottom. On the north side of the shaft a good field of coal has been tapped by driving a rock tunnel through a 50-foot upthrow fault. Mining is done in this district by electric coal-cutter. Pillars are being extracted on the No. 1 incline, west of the shaft, also on the main East levels.

LOCATION OF ACCIDENT.

The explosion occurred in what is known as Fat Sing's machine section, a new piece of long-wall work started inside of a fault on the No. 6 East level off hoist incline; this consists of a long-wall face of approximately 500 feet in length, opened out by four roadways and the level.

THE APPARENT CONDITION OF THE MINE BEFORE THE EXPLOSION.

To give this is appended the following reports:—

(*a.*) Firebosses' daily reports from May 20th to June 3rd, 1917.
(*b.*) Inspectors' reports for March, April, and May, 1917.
(*c.*) Gas Committee reports for March, April, and May, 1917.

TRANSCRIPT OF FIREBOSSES' REPORT-BOOK.

Date: May 20th, 1917. Time: 7 a.m.
I have examined all roadways, doors, and curtains leading to working-places on East and West sides and found same in good order.

(Signed.) DUNCAN THOMPSON; J. B.

Date: May 20th. Time: 2.45 p.m.
I have examined the working-places and roadways of Big Hoist, Hero's, and East Side section and found same in good condition.

(Signed.) JOHN BROWN.

Date: May 20th. Time: 3 p.m.
I have examined all working on the incline and found all clear and in good order.

(Signed.) THOS. RICHARDS.

Date: May 21st. Time: 7 a.m.
Barometer: 29.7. Temperature: 45.
I have examined all working-places on East and West sides and found them free from gas and in good order, with the exception of a little gas in slope, Rock Tunnel section.

(Signed.) Duncan Thompson.

Date: May 21st. Time: 7 a.m.
Barometer: 29.7. Temperature: 45.
I have examined all working-places and roadways on the incline, and found gas in No. 4 stall off East level; the others clear.

(Signed.) Thos. Richards.

Date: May 21st. Time: 2 p.m.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) Thos. Richards.

Date: May 21st. Time: 3 p.m.
I have examined working-places, Nos. 1 and 2 West, and found them safe and clear of gas. Timbering and ventilation good.

(Signed.) H. Leighton.

Date: May 21st. Time: 3 p.m.
I have examined the working-places and roadways in Rock Tunnel and found all safe and clear, except for a little gas in slope. Timbering and ventilation good.

(Signed.) J. E. Spicer.

Date: May 21st. Time: 3 p.m.
I have examined all working-places in Big Hoist section and found same in good condition and free from gas.

(Signed.) J. Biggs; F. B.

Date: May 21st. Time: 12 p.m.
I have examined all working-places on incline and Rock Tunnel and found all clear of gas, except a little in slope in Rock Tunnel.

(Signed.) T. Leeman.

Date: May 21st. Time: 12 p.m.
I have examined the working-places and roadways in Big Hoist section and found same in good order and free from gas.

(Signed.) F. Bobba.

Date: May 21st. Time: 12 p.m.
I have examined the working-places and roadways of Nos. 1 and 2 West and found same in good condition and free from gas.

(Signed.) John Brown.

Date: May 22nd. Time: 7 a.m.
Barometer: 29.7. Temperature: 48.
I have examined all working-places on East and West sides and found them free from gas and in good order, except a little gas in slope road, Rock Tunnel section.

(Signed.) Hugh Sloan; Duncan Thompson.

Date: May 22nd. Time: 7 a.m.
Barometer: 29.7. Temperature: 48.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) Thos. Richards.

Date: May 22nd. Time: 2 p.m.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) Thos. Richards.

Date: May 22nd. Time: 3 p.m.
I have examined all working-places in Big Hoist section and found same in good condition and free from gas.

(Signed.) J. Biggs; F. B.

Date: May 22nd. Time: 3 p.m.
I have examined all working-places and roadways in Rock Tunnel. I found a little gas in East slope; all others clear and safe. Timbering and ventilation good.

(Signed.) J. E. Spicer; T.L.

Date: May 22nd. Time: 3 p.m.
I have examined working-places, Nos. 1 and 2 West, and found them safe and clear of gas. Timbering and ventilation good.

(Signed.) H. Leighton; J. B.

Date: May 22nd. Time: 12 p.m.
I have examined all workings on incline, Rock Tunnel, and found a little gas in slope, Rock Tunnel; all other places clear.

(Signed.) T. LEEMAN.

Date: May 22nd. Time: 12 p.m.
I have examined the working-places and roadways in Big Hoist section and found same in good order and clear of gas.

(Signed.) F. BOBBA.

Date: May 22nd. Time: 12 p.m.
I have examined the working-places and roadways of Nos. 1 and 2 West and found same in good condition and free from gas.

(Signed.) HUGH SLOAN; JOHN BROWN.

Date: May 23rd. Time: 7 a.m.
Barometer: 29.6. Temperature: 42.
I have examined all working-places on East and West sides and found them free from gas and in good order, except a little gas in Fat Sing's machine wall, Big Hoist section.

(Signed.) DUNCAN THOMPSON.

Date: May 23rd. Time: 7 a.m.
Barometer: 29.6. Temperature: 42.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) HUGH SLOAN; THOS. RICHARDS.

Date: May 23rd. Time: 2 p.m.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS; T.L.

Date: May 23rd. Time: 3 p.m.
I have examined all working-places in Big Hoist section and found them in good condition and free from gas.

(Signed.) J. BIGGS; F.B.

Date: May 23rd. Time: 3 p.m.
I have examined all working-places and roadways in Rock Tunnel and found a little gas in slope; all others safe and clear.

(Signed.) J. E. SPICER; T.L.

Date: May 23rd. Time: 3 p.m.
I have examined working-places in Nos. 1 and 2 West and found them safe and clear of gas. Miss-shot No. 82; place, Hero section. Timbering and ventilation good.

(Signed.) HY. LEIGHTON; J. B.

Date: May 23rd. Time: 11 p.m.
I have examined the working-places and roadways of Nos. 1 and 2 West and found same in good condition and free from gas.

(Signed.) JOHN BROWN.

Date: May 23rd. Time: 11 p.m.
I have examined all working-places on incline and Rock Tunnel and found a little gas in slope; all other places clear and in good working-order.

(Signed.) T. LEEMAN; HUGH SLOAN.

Date: May 23rd. Time: 11 p.m.
I have examined the working-places and roadways in Big Hoist section and found same in good order and free from gas.

(Signed.) F. BOBBA.

Date: May 24th. Time: 6 a.m.
I have examined roadways, doors, and curtains leading to working-places in Rock Tunnel, also Big Hoist section, and found them in good order.

(Signed.) DUNCAN THOMPSON; HUGH SLOAN; T. M.

Date: May 25th. Time: 7 a.m.
Barometer: 29.5. Temperature: 50.
I have examined all working-places and roadways on East and West sides and found them free from gas and in good order, excepting a little gas in slope roadway, Rock Tunnel section.

(Signed.) DUNCAN THOMPSON.

Date: May 25th. Time: 7 a.m.
I have examined all working-places and the roadways on the incline and found them clear.

(Signed.) THOS. RICHARDS; HUGH SLOAN.

Date: May 25th. Time: 2 p.m.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS.

Date: May 25th. Time: 3 p.m.
I have examined working-places and roadways, Nos. 1 and 2 West, and found them safe and clear of gas. Timbering and ventilation good.

(Signed.) HY. LEIGHTON; J. B.

Date: May 25th. Time: 3 p.m.
I have examined the working-places and roadways in Rock Tunnel. I found a little gas in slope; all others clear and safe. Timbering and ventilation good.

(Signed.) J. E. SPICER.

Date: May 25th. Time: 3 p.m.
I have examined all working-places behind Big Hoist and found same in good condition and free from gas.

(Signed.) J. BIGGS; F. B.

Date: May 25th. Time: 12 p.m.
I have examined all workings and roadway, incline and Rock Tunnel, and found a little gas in slope; all other places clear.

(Signed.) T. LEEMAN.

Date: May 25th. Time: 12 p.m.
I have examined the working-places and roadways in Big Hoist section and found same in good order and free from gas.

(Signed.) F. BOBBA.

Date: May 25th. Time: 12 p.m.
I have examined the working-places and roadways of Nos. 1 and 2 West and found same in good condition and free from gas.

(Signed.) JOHN BROWN.

Date: May 26th. Time: 7 a.m.
Barometer: 29.6. Temperature: 50.
I have examined all working-places and roadways on East and West sides and found them free from gas and in good order, except a little gas at face off Fat Sing's machine wall, Big Hoist section.

(Signed.) DUNCAN THOMPSON.

Date: May 26th. Time: 7 a.m.
Barometer: 29.6. Temperature: 50.
I have examined all places and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS; HUGH SLOAN; T. M.

Date: May 26th. Time: 2 p.m.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS.

Date: May 26th. Time: 3 p.m.
I have examined all working-places in Big Hoist section and found same in good order and free from gas.

(Signed.) J. BIGGS; F. B.

Date: May 26th. Time: 3 p.m.
I have examined the working-places and roadways in Rock Tunnel and found a little gas in slope; all others clear and safe. Timbering and ventilation good.

(Signed.) J. E. SPICER.

Date: May 26th. Time: 3 p.m.
I have examined working-places and roadways, Nos. 1 and 2 West, and find them safe and clear of gas. Timbering and ventilation good.

(Signed.) HY. LEIGHTON; F. B.

Date: May 26th. Time: 11 p.m.
I have examined the working-places in Big Hoist section and found same in good order and free from gas. Roadways, timbering, and ventilation good.

(Signed.) F. BOBBA.

Date: May 26th. Time: 11 p.m.
I have examined all working-places, roadways, incline, and Rock Tunnel; found a little gas in the slope; all other places clear.

(Signed.) T. LEEMAN.

Date: May 26th. Time: 11 p.m.
I have examined the working-places and roadways of Nos. 1 and 2 West and found same in good condition and free from gas.

(Signed.) JOHN BROWN.

Date: May 27th. Time: 4 a.m.
I have examined roadways, doors, and curtains on East and West sides and found same in good order, except No. 2 West level door (requires repairing).

(Signed.) DUNCAN THOMPSON; F. B.

Date: May 27th. Time: 2.30 p.m.
I have examined the working-places and roadways in Big Hoist section and Rock Tunnel and found same in good order and free from gas.

(Signed.) F. BOBBA.

Date: May 27th. Time: 3 p.m.
I have examined all workings and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS.

Date: May 28th. Time: 7 a.m.
Barometer: 29.55. Temperature: 50.
I have examined all working-places and roadways on East and West sides and found them free from gas and in good order, except a little gas in slope roadway, Rock Tunnel section.

(Signed.) DUNCAN THOMPSON; F. B.

Date: May 28th. Time: 7 a.m.
Barometer: 29.55. Temperature: 50.
I have examined all working-places and roadways on the incline and found gas in the East level; the others clear.

(Signed.) THOS. RICHARDS; J. B.

Date: May 28th. Time: 2 p.m.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS.

Date: May 28th. Time: 3 p.m.
I have examined all working-places and roadways in Big Hoist section and found same in good order and free from gas. (Miss-shot in Jap's place, Check No. 18.)

(Signed.) F. BOBBA.

Date: May 28th. Time: 3 p.m.
I have examined the working-places and roadways of Nos. 1 and 2 West and found same in good condition and free from gas.

(Signed.) JOHN BROWN.

Date: May 28th. Time: 3 p.m.
I have examined all working-places and roadways in Rock Tunnel. I found a little gas in W. Hutton's face and also in slope; all others safe and clear. Timbering good and ventilation fair.

(Signed.) J. E. SPICER.

Date: May 28th. Time: 12 p.m.
I have examined all working-places on incline and found all clear of gas. Roadway ventilation in good condition.

(Signed.) T. LEEMAN.

Date: May 28th. Time: 12 p.m.
I have examined working-places, Nos. 1 and 2 West and Rock Tunnel, and found them safe and clear of gas, except Rock Tunnel slope. Timbering and ventilation good.

(Signed.) HY. LEIGHTON.

Date: May 28th. Time: 12 p.m.
I have examined all working-places in Big Hoist section and found same in good order and free from gas.

(Signed.) J. BIGGS; T. M.

Date: May 29th. Time: 7 a.m.
Barometer: 29.5. Temperature: 50.
I have examined all working-places and roadways on East and West sides and found them free from gas and in good order, except a little gas at face off Fat Sing's machine wall, Big Hoist section.

(Signed.) DUNCAN THOMPSON; F. B.; T. L.

Date: May 29th. Time: 7 a.m.
Barometer: 29.5. Temperature: 50.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS; HUGH SLOAN.

Date: May 29th. Time: 2 p.m.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS.

Date: May 29th. Time: 3 p.m.
I have examined all working-places and roadways in Rock Tunnel and found a little gas in slope; all other places clear and in good order.

(Signed.) T. LEEMAN; T. M.

Date: May 29th. Time: 3 p.m.
I have examined the working-places and roadways in Big Hoist section and found same in good order and free from gas.

(Signed.) F. BOBBA.

Date: May 29th. Time: 3 p.m.
I have examined the working-places and roadways of Nos. 1 and 2 West and found same in good condition and free from gas.

(Signed.) JOHN BROWN.

Date: May 29th. Time: 12 p.m.
I have examined all working-places on incline. I found a little gas in No. 4 place in Level Dip section; all others clear and safe. Timbering and ventilation good.

(Signed.) J. E. SPICER.

Date: May 29th. Time: 12 p.m.
I have examined working-places and roadways, Nos. 1 and 2 West and Rock Tunnel, and find them safe and clear of gas, except Rock Tunnel slope. Timbering and ventilation good.

(Signed.) HY. LEIGHTON.

Date: May 29th. Time: 12 p.m.
I have examined all working-places behind Big Hoist and found same in good condition and free from gas.

(Signed.) J. BIGGS.

Date: May 30th. Time: 7 a.m.
Barometer: 29.6. Temperature: 48.
I have examined all working-places and roadways on East and West sides and found them free from gas and in good order, except a little gas in roadway of Rock Tunnel slope.

(Signed.) DUNCAN THOMPSON; J. B.

Date: May 30th. Time: 7 a.m.
Barometer: 29.6. Temperature: 48.
I have examined all working-places and roadways on the incline and found gas in No. 5 stall; the others all clear.

(Signed.) THOS. RICHARDS; T. M.

Date: May 30th. Time: 1 p.m.
I have examined all working-places and roadways on the incline and found gas in No. 5 stall, East level; the others all clear.

(Signed.) THOS. RICHARDS.

Date: May 30th. Time: 3 p.m.
I have examined all working-places in Rock Tunnel and found a little gas in slope; all other places clear. Roadway good; ventilation fair.

(Signed.) T. LEEMAN.

Date: May 30th. Time: 3 p.m.
I have examined the working-places and roadways of Nos. 1 and 2 West and found same in good condition and free from gas.

(Signed.) JOHN BROWN.

Date: May 30th. Time: 3 p.m.
I have examined all working-places and roadways in Big Hoist section and found same in good order and free from gas.

(Signed.) F. BOBBA.

Date: May 30th. Time: 12 p.m.
I have examined the working-places and roadways on incline and found all safe and clear of gas. Timbering good; ventilation good.

(Signed.) J. E. SPICER.

Date: May 30th. Time: 12 p.m.
I have examined all working-places behind Big Hoist and found same in good condition and free from gas.

(Signed.) J. BIGGS.

Date: May 30th. Time: 12 p.m.
I have examined working-places and roadways, Nos. 1 and 2 West and Rock Tunnel, and find them safe and clear of gas, except slope, Rock Tunnel. Timbering good; ventilation fair.

(Signed.) HY. LEIGHTON.

Date: May 31st. Time: 7 a.m.
Barometer: 29.7. Temperature: 50.
I have examined all working-places and roadways and found them free from gas and in good order, except a little gas in Hutton's place and slope roadway.

(Signed.) DUNCAN THOMPSON; F. B.

Date: May 31st. Time: 7 a.m.
Barometer: 29.7. Temperature: 50.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS; T. M.

Date: May 31st. Time: 3 p.m.
I have examined the working-places and roadways in Big Hoist section and found same in good order and free from gas.

(Signed.) F. BOBBA.

Date: May 31st. Time: 3 p.m.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS.

Date: May 31st. Time: 3 p.m.
I have examined all working-places in Rock Tunnel and found a little gas in slope; all other places clear. Roadway good; ventilation fair.

(Signed.) T. LEEMAN.

Date: May 31st. Time: 3 p.m.
I have examined the working-places and roadways of Nos. 1 and 2 West and found same in good condition and free from gas.

(Signed.) JOHN BROWN.

Date: May 31st. Time: 12 p.m.
I have examined all working-places in Big Hoist section and found same in good condition and free from gas.

(Signed.) J. BIGGS.

Date: May 31st. Time: 12 p.m.
I have examined working-places and roadways, Nos. 1 and 2 West and Rock Tunnel, and find them safe and clear of gas, except Rock Tunnel slope. Ventilation fair; ventilation good.

(Signed.) HY. LEIGHTON.

Date: May 31st. Time: 12 p.m.
I have examined all working-places and roadways on incline and found all safe and clear of gas. Timbering and ventilation good.

(Signed.) J. E. SPICER.

Date: June 1st. Time: 7 a.m.
Barometer: 29.5. Temperature: 50.
I have examined all working-places and roadways and found them free from gas and in good order, except a little gas in Rock Tunnel slope.

(Signed.) DUNCAN THOMPSON; F. B.; T. M.

Date: June 1st. Time: 7 a.m.
Barometer: 29.5. Temperature: 50.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS.

Date: June 1st. Time: 3 p.m.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) THOS. RICHARDS.

Date: June 1st. Time: 3 p.m.
I have examined the working-places and roadways of Nos. 1 and 2 West and found same in good condition and free from gas.

(Signed.) John Brown; Hugh Sloan.

Date: June 1st. Time: 3 p.m.
I have examined all working-places in Rock Tunnel and found a little gas in slope; all other places clear. Roadway good; ventilation fair.

(Signed.) T. Leeman.

Date: June 1st. Time: 3 p.m.
I have examined the working-places and roadways in Big Hoist section and found same in good order and clear of gas.

(Signed.) F. Bobba.

Date: June 1st. Time: 12 p.m.
I have examined all working-places in Big Hoist section and found same in good condition and free from gas.

(Signed.) J. Biggs.

Date: June 1st. Time: 12 p.m.
I have examined all working-places and roadways on incline and found all safe and clear of gas. Timbering and ventilation fair.

(Signed.) J. E. Spicer.

Date: June 1st. Time: 12 p.m.
I have examined working-places and roadways, Nos. 1 and 2 West and Rock Tunnel, and find them safe and clear of gas, except slope, Rock Tunnel. Timbering good; ventilation fair.

(Signed.) Hy. Leighton.

Date: June 2nd. Time: 7 a.m.
Barometer: 29.5. Temperature: 50.
I have examined all working-places and roadways and found them free from gas and in good order, except a little gas in slope roadway at face of Brown's level, Rock Tunnel section.

(Signed.) Duncan Thompson; F. B.; T. L.

Date: June 2nd. Time: 7 a.m.
Barometer: 29.5. Temperature: 50.
I have examined all workings and roadways on the incline and foun d all clear.

(Signed.) Thos. Richards.

Date: June 2nd. Time: 2 p.m.
I have examined all working-places and roadways on the incline and found all clear.

(Signed.) Thos. Richards.

Date: June 2nd. Time: 3 p.m.
I have examined the working-places and roadways in Big Hoist section and found same clear of gas and in good order.

(Signed.) F. Bobba.

Date: June 2nd. Time: 3 p.m.
I have examined the working-places and roadways of Nos. 1 and 2 West section and found same in good condition and free from gas.

(Signed.) John Brown.

Date: June 2nd. Time: 3 p.m.
I have examined all working-places in Rock Tunnel and found a little gas in slope; all other places clear. Roadway good; ventilation fair.

(Signed.) T. Leeman.

Date: June 2nd. Time: 11 p.m.
I have examined all working-places on incline and found all safe and clear of gas. Timbering and ventilation good; roadways safe.

(Signed.) J. E. Spicer.

Date: June 2nd. Time: 11 p.m.
I have examined all working-places in Big Hoist section and found same in good order and free from gas.

(Signed.) J. Biggs.

Date: June 2nd. Time: 11 p.m.
I have examined working-places and roadways, Nos. 1 and 2 West, and find them safe and clear of gas. Timbering and ventilation good.

(Signed.) Hy. Leighton.

Date: June 3rd. Time: 4 a.m.
I have examined roadways, doors, and curtains in Big Hoist section, Rock Tunnel, and No. 1 West and found same in good order.

(Signed.) DUNCAN THOMPSON.

Date: June 3rd. Time: 8 a.m.
I have examined all working-places in Rock Tunnel and found a little gas in slope; all other places clear.

(Signed.) T. LEEMAN.

INSPECTORS' REPORTS FOR MARCH, APRIL, AND MAY, 1917.

I hereby give notice that I have this day examined the underground workings of that part of the Canadian Collieries (Dunsmuir), Limited, Colliery known as No. 6 mine, and find the following conditions to prevail therein:—
Part of mine examined: All the mine. Ventilation: Good, showing 43,375 cubic feet of air a minute passing into the mine, divided into three splits.
Explosive gas: Found a small quantity in No. 1 slant off the West level, No. 1 dip; and in No. 2 slant off No. 5 East level.
Roadways: In fair order. Timbering: In fair condition.
Remarks: In No. 1 split there was 14,500 cubic feet of air a minute passing for the use of thirty-one men and three mules. In No. 2 split there was 16,875 cubic feet of air a minute passing for the use of sixty-three men and seven mules. In No. 3 split there was 12,000 cubic feet of air a minute passing for the use of forty-four men and five mules.
Dated at Cumberland, B.C., this 13th day of March, 1917.

HENRY DEVLIN,
Inspector of Mines.

I hereby give notice that I have this day examined the underground workings of that part of the Canadian Collieries (Dunsmuir), Limited, Colliery known as No. 6 mine, and find the following conditions to prevail therein:—
Part of mine examined: All the mine. Ventilation: Good, showing 40,975 cubic feet of air a minute passing into the mine, divided into three splits.
Explosive gas: Found a little issuing from a feeder in the roof in No. 2 level off No. 2 dip.
Roadways: In fair order. Timbering: In fairly good order.
Remarks: In No. 1 split there was 15,000 cubic feet of air a minute passing for the use of thirty-two men and four mules. In No. 2 split there was 15,975 cubic feet of air a minute passing for the use of forty-seven men and eight mules. In No. 3 split there was 10,000 cubic feet of air a minute passing for the use of forty-seven men and five mules.
Dated at Cumberland, B.C., this 11th day of April, 1917.

HENRY DEVLIN,
Inspector of Mines.

I hereby give notice that I have this day examined the underground workings of that part of the Canadian Collieries (Dunsmuir), Limited, Colliery known as No. 6 mine, and find the following conditions to prevail therein:—
Part of mine examined: All the mine. Ventilation: Good, showing 38,850 cubic feet of air a minute passing into the mine, divided into three splits.
Explosive gas: None found. Roadways: In fair order. Timbering: In fairly good condition.
Remarks: In No. 1 split there was 10,500 cubic feet of air a minute passing for the use of sixteen men and three mules. In No. 2 split there was 15,750 cubic feet of air a minute passing for the use of fifty men and seven mules. In No. 3 split there was 12,600 cubic feet of air a minute passing for the use of forty-three men and six mules.
Dated at Cumberland, B.C., this 7th day of May, 1917.

HENRY DEVLIN,
Inspector of Mines.

GAS COMMITTEE REPORTS FOR MARCH, APRIL, AND MAY, 1917.

March 22nd. I have examined all No. 6 mine in accordance with General Rule 37, C.M.R.A., and found all clear of gas, ventilation good, timbering good, and all in safe condition.

NAT BEVIS.

April 17th. I have examined all No. 6 mine of Cumberland in accordance with General Rule 37, C.M.R.A., and found all clear of gas, ventilation good, timbering good, and in general in safe working condition.

NAT BEVIS.

May 17th. I have examined all No. 6 mine in accordance with General Rule 37, C.M.R.A., and found all clear of gas, except a slight cap in dip in Rock Tunnel district, but I do not consider this dangerous. Ventilation good, timbering good, and all in safe working condition.

NAT BEVIS.

Condition of Mine after Explosion.

The mine was practically undamaged; two or three temporary stoppings blown out and a few curtains down was the only damage done; these were repaired in about one hour after the explosion occurred. The surveyor's transit which was standing on the level some distance outside was blown over by the force of the blast and broken.

Detailed Condition at Face of Section where Accident occurred.

No. 1 Roadway.—Coal undercut, but not shot down; signs of coking; timber burnt a little and pitch on timbers burned; on low side of this place was a fault.

No. 2 Roadway.—Coal undercut, but not shot down; signs of coking on coal cuttings from machine-mining.

No. 3 Roadway.—Coal undercut and shot down; no signs of coking; everything at face undisturbed.

No. 4 Roadway.—Conditions same as before explosion.

Face of Level.—Conditions same as before explosion.

Lines of Force of Explosive Blast.

The lines of force were outward, although very slight; there were small amounts of debris scattered outwards and the parts of the surveyor's transit were blown outwards.

Deductions as to the Initial Point of Explosion.

Conditions found point to the face of No. 3 roadway as being the initial point of the explosion. Apparently there had been a small accumulation of gas along the face at the end of this roadway. The machine had just finished an undercut along the face, and the portion in front of No. 3 roadway had been shot down and the loose coal was still lying there. The balance of the face was undercut and the cuttings thrown back in a heap at the face.

In the writer's opinion there had been a small accumulation of gas along the face at the head of No. 3 roadway and where the coal was shot down. On account of the coal which remained unshot there would be a projection which would hinder the air-current from reaching the portion which was shot down. This small accumulation of gas became ignited and travelled along the face, gathering up the finest of the coal-dust from the machine cuttings, and travelled down the airway on to the level and outwards for a distance of approximately 360 feet, or a distance of about 500 feet altogether from the point of origin. At this point the force had been expended.

At a point about 330 feet from the point of origin the surveyor's transit had been standing, and was knocked over and broken by the force of the blast and scattered a distance of 85 feet. The tool-sack which was lying on the floor, with hammers, etc., in it, was left undisturbed; a stopping was blown out by the concussion a distance of 600 feet from the point of origin. A man working about 1,000 feet away just felt a slight concussion, while another one claims he was knocked over; these men gave the alarm that something was wrong.

Cause of Ignition.

In the writer's opinion the gas was ignited by the flame of the carbide lamp carried by L. Murdock, who was following close on the heels of the fireboss going into the place. In No. 3 roadway the brushing was 14 feet from the face, and the safety-lamp carried by the fireboss was found 9 feet from the face of the brushing. Eighteen feet from the fireboss's lamp a carbide lamp was found which evidently had been carried by L. Murdock, judging from the position the bodies were found. Twenty feet farther back another safety-lamp was found, and 10 feet from this another carbide lamp was found; these had evidently been carried by Bertram, the chief surveyor in charge of the party. Ten feet outside of the carbide lamp carried by Bertram, another carbide lamp was found; this lamp had evidently been carried by Brough.

The bodies were all found in rotation as the lamps were found. Brough had moved about 120 feet from where he had dropped his lamp; Bertram had moved about 105 feet from where his lamp was found; Murdock had moved 80 feet away from his lamp, and Bobba 77 feet.

From the positions the bodies and lamps were found it would appear that the survey party had gone in this district, accompanied by the fireboss, to have a look around the places prior

to starting to survey. The position in which the lamps of the various members of the survey party were found would also indicate this. We found the fireboss's lamp nearest the face; his body is also nearest the point of ignition. Murdock's body is found next to the fireboss, with approximately the same distance between them as there was when they started to get out after the ignition had taken place. The other two bodies are practically the same, almost the same distance dividing them as there was before the accident. There was a small drill for drilling holes for the station plugs, found at the switch with the safety-lamp and carbide lamp; this had evidently been carried by Bertram. Murdock had evidently gone up the place to give Bertram a preliminary foresight for the station at the switch, and the fireboss had gone in ahead of him to examine the place, and not expecting anything to be in the place had allowed him to come in too close, and the flame from his lamp had come in contact with the outer edge of the accumulation of gas and ignited it. If it had not been for the dust from the machine-cutting it is improbable that the explosion would have extended any farther than the one place. The mine was damp at this point, and, in fact, throughout the whole mine; this accounts for the short distance the explosion travelled. Unfortunately the place had just been machine-cut the previous afternoon, and some of the dust from the cuttings was fine and dry enough to play a part in the explosion, and there is no doubt in my mind but what the dust propagated the explosion from its point of origin to where it stopped. Apart from the small amount of dust made at the face by the machine-cuttings, there was no material in this mine to feed an explosion; this accounts for the short distance the flame travelled.

VENTILATION.

The ventilation of the mine was good; there were 38,850 cubic feet a minute passing into the mine, and for the split where the accident occurred 15,750 cubic feet a minute. The conducting of this to the face might have been better, the pack-walls at the head of the roadways being a little too far back from the face, leaving too large an area, with a consequent reduction in velocity, thereby allowing a thin stratum of gas to accumulate along the roof at the face.

A little gas was reported in this section by D. Thompson, night-shift fireboss, in his reports of 7 a.m., May 23rd, May 27th, and May 29th, 1917. In cross-examination at the inquest this fireboss stated that the gas he reported on these three occasions was found at the highest place, and was not explosive gas, but simply a cap of gas. He also testified that he examined the section where the explosion occurred between 2 a.m. and 3 a.m. on the morning of the explosion and found it absolutely clear. While not being in a position to dispute this statement, a little reasoning will show that this is a strange occurrence.

Work finished on the long-wall face at 9 p.m. the night before the explosion, and from this fireboss's statements had stood for a period of six hours and no gas had accumulated. It is strange that after standing for this period, and remaining clear, gas should have accumulated between the hours of 3 a.m. and 10 a.m. unless some unusual occurrence had taken place on the face, which to all appearances had not.

OFFICIAL REPORTS.

These reports were made regularly and in correct form as far as the actual working-days were concerned, but for Sundays they are open for criticism.

It appears that on Saturday night the fireboss's work was to examine the doors, stoppings, and curtains to see that they were in good order. This left the Saturday night shift without a report for any men that might be coming to work in the mine on Sunday morning. This could have been remedied by sending out a fireboss earlier to have sufficient time to make the examination and report before the men went in the mine. It appears this was not done, Sunday being a small shift on repair-work; the firebosses on the morning shift would go and examine the particular places where these men were going to work, just before the men entered.

Technically this may have fulfilled the provisions of the "Coal-mines Regulation Act," but practically it was a poor system, and I am of the opinion it was a breach of their own special rules, No. 28 of which reads: "The fireboss on night shift shall begin to make his examination for the morning shift within three hours of the time the day shift enters the mine, and have it completed and be at the station to make and sign his report before the day shift enters the mine."

The defence was put up at the inquest by Mr. Mordy, overman at No. 6 mine, that there was no shift coming on duty on Sundays; therefore it was not necessary to have an examination and report made. When cross-examined by the writer he admitted there were twenty-four men at work exclusive of the surveyors, but including five firebosses this made a total of twenty-seven men in the mine; and he also admitted that under the circumstances that morning he would consider an examination necessary. There were plenty officials employed at the mine to carry out all provisions of the "Coal-mines Regulation Act" and special rules, but there seemed a laxity on the part of the manager and overman in not having this done on Sundays when men were working in the mine. It would have been a different matter if there had been no men going out to work in the mine. There might then have been some grounds for the statement that no examination was necessary.

Inquest.

A Coroner's inquisition was held at Cumberland on June 6th and 7th, 1917, and after taking the evidence of eight witnesses the jury brought in the following verdict:—

"We, the jury empanelled to inquire into the death of George Norris Bertram, Frank Bobba, Lois Murdock, and John D. Brough at No. 6 mine, Cumberland, B.C., Canada, Sunday, 3rd day of June, 1917, are unanimously agreed that the above came to their death by an accidental explosion of gas in the Machine section. We also respectfully recommend that the use of naked lights in No. 6 mine of the Canadian Collieries (Dunsmuir), Limited, be entirely abolished.

"(Signed.) H. V. Collins, *Foreman.*
"John Prain.
"James E. Aston.
"Edward Longland.
"George John Hardy.
"John Williamson.

"Joseph Shaw, *Coroner.*"

Concluding Remarks and Suggestions.

The unfortunate loss of life in this case is to be regretted; in no case was the burning severe, or any other serious injuries, death being due to carbon-monoxide poisoning.

The accident was due purely and simply to naked lights. This accident could not have possibly occurred if safety-lamps had been in use. The mine was not gassy, neither was it dusty; it was just about as safe as any mine could be made from a gas and dust standpoint. It would therefore appear that naked lights are not safe in any coal-mine, and I would earnestly recommend that a clause be put in the "Coal-mines Regulation Act" prohibiting the use of naked lights in a coal-mine. This accident in all probability would not have occurred if it had been an ordinary working-day instead of Sunday, because in the event of it being a working-day the fireboss would have been in and examined the face for the oncoming shift within a short period of the men going in, and would have found the accumulation of gas and fenced the place off. Mr. Mordy, the overman of the mine, when cross-examined by the writer at the inquest, stated that when surveyors were going out on Sunday they usually reported to him, and he made arrangements for the examination of the places by the fireboss; and in this case the surveyor told him he would be down at the mine at 7 o'clock and see the fireboss himself, and he informed the surveyor the fireboss could go with them while they were making their survey. This the surveyor had evidently done, as he had been in the district on the other side of the shaft with the fireboss for that district and had completed his survey. He had evidently then gone into the other district and got Bobba, the fireboss, to go with them to examine the place. By an error of judgment on the part of Bobba, he had allowed these men to go in the places with him while he was making his examination, instead of keeping them at a point on the outside of the district until he had done so. Unfortunately he paid the extreme penalty for this error and sacrificed the lives of three men.

There was no lack of officials in the mine to make a thorough examination of the same, as there were five firebosses in the mine with nineteen workmen the morning of the explosion.

Appended to this report is a plan of location of accident, showing position of bodies found and general lines of explosive blast and direction of ventilating-current. Also analysis of samples of dust collected after explosion, and statement of injuries by the doctor.

SAMPLES OF COAL AND COKE TAKEN FROM No. 6 MINE, CUMBERLAND, ON JUNE 4TH, 1917.

		Moisture.	Volatile Matter.	Fixed Carbon.	Ash.
		Per Cent.	Per Cent.	Per Cent.	Per Cent.
Sample No. 1..	Off end of cog at face of inside (No. 4) road.....	1.2	25.3	42.9	30.6
" 2..	Off prop at head of No. 3 road	1.3	23.6	49.7	25.4
" 3..	Off cog on No. 1 road, 40 feet from face on left side..	1.5	19.5	42.4	36.6
" 4..	Off cog immediately above No. 1 carbide lamp.....	1.8	12.4	33.8	52.0
" 5..	Off (fault) cog 15 feet outside of fault	1.3	18.1	40.1	40.5
" 6..	Off cog at bottom of No. 7 road	1.2	22.3	44.3	32.2

DOCTOR'S CERTIFICATE.

My name is George Kerr McNaughton. I am a duly qualified medical practitioner in and for the Province of British Columbia. I reside at Cumberland.

About 1 p.m. on Sunday, June 3rd, I went down to No. 5 mine in company with T. Graham and Robt. Henderson, and straightway proceeded to that part of the mine where lay the bodies of the deceased, John D. Brough, Lewis Murdock, Frank Bobba, and George Bertram. I briefly examined the bodies in the order named, and in each case was unable to find any signs of life. The bodies were lying prostrate, and I noticed that the faces and hands were superficially burnt and that the covered parts of the bodies were still quite warm.

On Monday afternoon I made a closer examination of the bodies at Mr. Banks's undertaking parlours, and found as follows:—

John D. Brough.—Hair on scalp and eyebrows burnt close to skin; burns of first and second degree of face, scalp, neck, hands, wrists, and both sides of trunk; third degree burn of the nose.

Lewis Murdock.—Hair singed on back and sides of neck, not singed at all on top of head; eyebrows burned close to skin; burns of first and second degree of face, backs of hands, and wrists; first degree burns of upper part of chest.

Frank Bobba.—Hair singed all over scalp; eyebrows burned close to skin, but eyelashes only slightly singed; burns of first and second degree of forehead, face, hands, and wrists.

George Bertram.—Hair singed all over scalp; in front half-burned close to skin; eyebrows burned; first and second degree burns of the forehead, face, hands, and wrists, and upper part of both shins.

In all cases the superficial layer of skin in the burnt areas was charred and blackened. Where the deep layer of skin was exposed it was a cherry-red colour, and in the different parts of the body the healthy skin assumed a fresh pink colour in contrast to the usual dusky purple.

Apart from the burns there was no evidence of external injury. From the nature of the accident and the examination of the bodies I believe the death of deceased, Brough, Murdock, Bobba, and Bertram, was caused from poisoning by carbon-monoxide gas.

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1918.

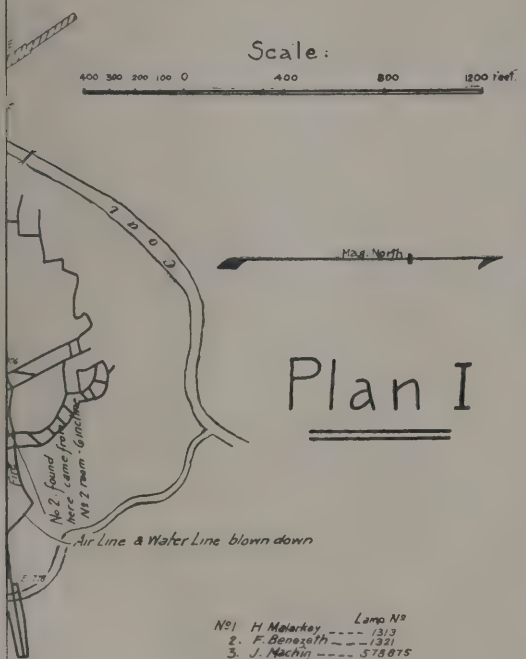
ROWS NEST PASS COAL CO.—

— PLAN OF —

Nº 2 AND Nº 3 MINES —

COAL CREEK COLLIERY

To accompany the Report of
Ashworth, - Consulting & Mining Engineer
921 Drake St, Vancouver, B.C.
the explosion which occurred in Nº 3 Mine on
the 5th of April - 1917 at 10.20 P.M.



Plan I

		Lamp Nº
Nº1	H Malarkey	1313
2.	F. Benezeth	1321
3.	J. Machin	578875
4.	P. Gormley	618
5	A. Barton	
6.	W.R Puckey	77
7.	W. Bird	1302
8.	N. Falip	1345
9.	W. Silverwood	1343
10	T. Checkley	1392
11.	B. Giacomazzi	
12.	J. Falip	
13.	J. Smith	1310
14	F. Smith	1316
15.	J Atkinson	1388
16	H. Haydock	
17.	G. Bosetti	
18	J. Campbell	
19.	W. C. Clarke	
20.	Ed. Coates	
21	J Monks	1367
22	J Stelliga	

G Giacomazzi - 1366 - on slope out of Nº 2 Room - N26 incline

F. Puillandres lamp - 1318 - found on Main Slope

—THE CROWS NEST PASS COAL CO.—

— PLAN OF —

— Nº 2 AND Nº 3 MINES —

COAL CREEK COLLIERY

To accompany the Report of
James Ashworth. - Consulting & Mining Engineer
921 Drake St, Vancouver, B.C.
On the explosion which occurred in Nº 3 Mine on
the 5th of April - 1917. at 10.20 P.M.

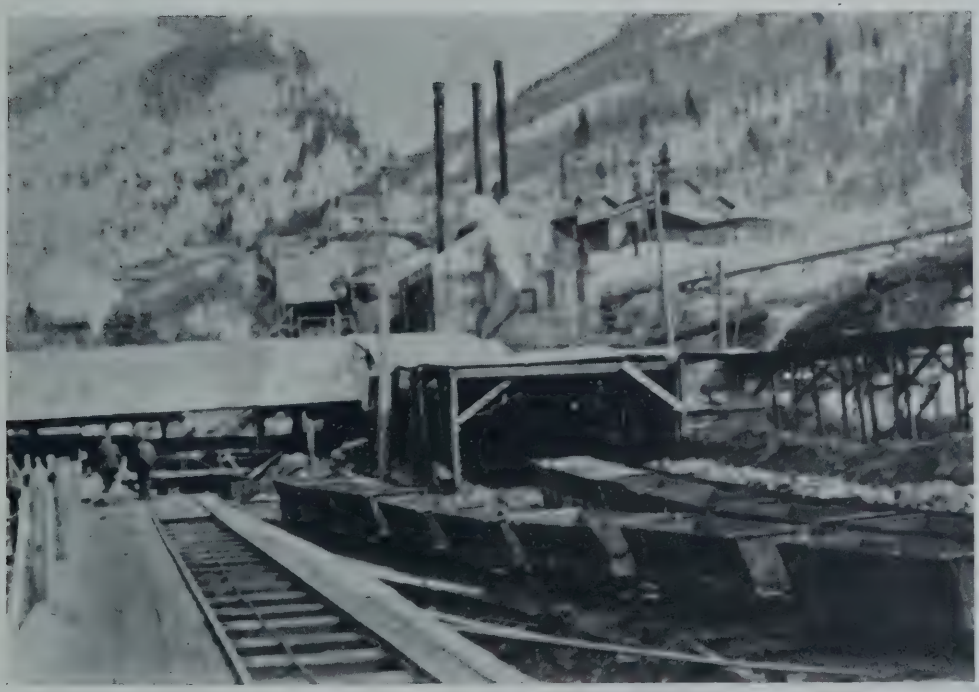
Scale:
400 300 200 100 0 400 800 1200 Feet.

Mag. North

Plan I

Main Entry Nº 2 Mine
Incline
Nº 2 Fan
Nº 3 Fan
Portal Nº 2 Mine
Portal Nº 3 Mine
3 doors
High Line Level
Nº 2 Entry East
Nº 3 Entry East
Nº 4 Entry East
Nº 1 Entry West
Nº 2 Entry West
Nº 3 Entry West
Old Bump Area
Dip Entry Travelling Road
Main Slope
Drapers Slope
Nº 2 Parallel
Nº 3 Parallel
Nº 1 Incline
Nº 2 Incline
Nº 3 Incline
Nº 4 Incline
Nº 5 Incline
Nº 6 Incline
Nº 7 Incline
Nº 8 Incline
Nº 9 Incline
Nº 10 Incline
Nº 11 Incline
Nº 12 Incline
Nº 13 Incline
Nº

Coal Creek Colliery, South Side.



Entry, No. 3 Mine Slope, from West.

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Entry, No. 3 Mine, Coal Creek, after explosion.

Entrance to Travelling-road, No. 3 Mine, Coal Creek.

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